6.5.3

Incremental Improvements made with regard to quality





I.K. GUJRAL PUNJAB TECHNICAL UNIVERSITY

DEPARTMENT OF PLANNING & EXTERNAL PROGRAMMES

Estd. Under Punjab Technical University Act, 1996 (Punjab Act No. 1 of 1997)

Ref.No.: IKGPTU/P&EP/O/ 327

Date: 25-10-2021

NAAC Metric 6.5.3

Incremental improvements made for the preceding five years with regards to quality (in case of first cycle)

Internal Quality Assurance Cell took initiatives for enhancement of quality in the academic and administrative and is implemented successfully by respective department of the University. The initiatives proposed by IQAC are as:

- Result declaration was ensured within 15 days from last day of examination.
- Incentive to top users of library resources was given to two students of University Main Campus named Mr. Saurav Saini B. Tech (ME), Ms. Pranjal Priya, B. Tech(ECE) on 15th August, 2018 by Hon'ble Vice Chancellor Prof. (Dr.) Ajay K. Sharma
- BOS has been separated for University Main & its constituent from BOS of affiliated colleges.
- To help the economically weaker section of society student welfare department is looking after Post-Matric Scholarship schemes.
- For promotion of the Post Graduate Programmes offered by University, University
 has opted for different ways like Advertisement, publicity through social networks
 i.e. Whatsapp, Facebook, Google, etc; Print media, Hoardings on National / State
 highways; Small documentary of PG Programmes; Promotional SMS to final
 semester students of UG courses.
- Along-with working query system in login of students, a call centre has been started in Examination department for resolve the grievances related to examination, which helps in resolving queries more efficiently.
- Couple of departments have implemented CBCS (Choice Based Credit System) and rest of the department are in process to implement.
- Couple of departments have reviewed course outcomes and program outcomes of all programmes running in their respective department and other are under process.
- University has signed different MoUs with organisations for the promotion of student internship, placement, start-ups and pre-placement preparation.
- University has signed different MoUs with various International / National Organisations / Institutes for joint student exchange programmes, faculty exchange programs and joint research programmes.

Guiral Puniab Technical University, Jala



I.K. GUJRAL PUNJAB TECHNICAL UNIVERSITY

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Date: 25-10-291

- Scholarship scheme for International / SAARC countries students has been notified and send for ratification from Academic Council.
- Under CAS of UGC, officers have been promoted to next scale.
- · Green Audit of IKGPTU has been conducted.

· Facilities required for differently abled have been provided which includes ramps for entrance in the buildings, evaluators.

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I.K. Gujral Punjab Technical University, Jalandhar

Kapurthala

IK Gujral Punjab Technical University Jalandhar

(Jalandhar-Kapurthalla highway)

Notification

No.IKGPTU/Reg//Notification/ 202

Dated: 13-05-19

Subject:

Notification regarding Board of Studies (University Campus / Constitute Campus) for the period of 2019-2021.

The IKG Punjab Technical University Jalandhar is pleased to constitute the Board of Studies (University Campus / Constitutes Campus) for a period of two years from the date of notification. The Board of Studies for University Campus will work under the overall supervision of Director (main campus) IKGPTU and Dr. Reeti Pal Singh, Associate Professor will coordinate as a nominee of Director (MC) for all Board of Studies.

The Functions of Board of Studies shall be:

- The board of studies shall perform the following functions for University Campus / Constitute Campus:
 - (a) To recommend the curriculum and course of Studies including the textbooks for various subjects of Undergraduate studies and Postgraduate studies to Academic Council through Dean Academics.
 - (b) To recommend the names of paper setters, internal and external examiners for undergraduate and postgraduate course.
 - (c) To frame academic regulations, wherever necessary, model papers for the guidance of paper setters.
 - (d) To recommend the list of reference books, periodicals, report etc., pertaining to the subject concerned, for the Library.
 - (e) To recommend measures for the periodical assessment and improvement of the standard of undergraduate and postgraduate studies.
 - (f) To act as a consultative body in regard to all references made to it and to bring to the notice of concerned authorities any matter connected with subjects under the purview of the Board.
 - (g) To recommend panel of editors for preparation of anthologies.
- Syllabus mapping for migration of students and others cases from other Universities shall be carried out by concerned BOS

3. The BOS shall recommend the reports related to the question papers i.e. out of syllabus, misprinting errors etc

Dean (P&EP)

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Kapurthala

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4. In addition to above, respective Board of studies shall suggest course scheme and measures to be taken for developing Teaching Departments as center of excellence in the University Campus/Constituent Campuses.

5. Meeting of the Board of studies shall be convened by the Chairman, BOS as and when considered necessary but not less than twice in a calendar year. Gap between two meetings should not be more than 180 days.

- 6. The curriculum of all courses running in University Campus / Constitute Campus including B. Voc. (Bachelor of Vocations) program shall be designed and approved by the respective Board of Studies.
- 7. One Third (1/3) of the total members of the BOS shall form the quorum for a meeting of the board of studies.
- 8. In the absence of Chairman BOS, the senior most member of BOS shall act as Chairman to hold meetings of respective BOS.
- 9. The curriculum of Ph.D course work also shall be designed and approved by the respective Board of Studies
- 10. Any BOS member, on account of continuous absence may be replaced by the Vice Chancellor on recommendation of Dean Academics / Chairperson BOS.
- 11. Chairman, BOS may invite any subject expert(s) with additional specialization to the BOS meeting as and when required with the permission of Director (MC), IKGPTU.
- 12. There shall not be separate BOS for Applied Sciences / Humanities / Social Sciences for under graduate program i.e. B.Tech program for University Campus / Constitute Campus. While designing syllabus of Applied Sciences / Humanities / Social Sciences of B.Tech program the Chairperson BOS shall invite at least two members from the concerned Board of Studies of PG program of Applied Sciences / Humanities / Social Sciences
- 13. Each BOS has one faculty as coordinator from IKGPTU. The coordinator will be responsible for making all the arrangements for conduct the BOS meeting and shall be responsible to put up all the issues / agenda related to BOS in meeting and will handover all the related records to the office of Director (Main Campus), IKGPTU.
- 14. To deal with any other matter referred to it by Director (MC) / Dean Academics or Vice Chancellor form time to time.
- 15. TA/DA & Honorarium to the members and other invitees of the meeting shall be paid as per University norms.

Enclosed Total Pages 28

(Path) I.K. Gujral Punjab Technical University, Jalandhar

Kapurthala

(Dr. Sukhbir Singh Walia) Registrar

Départment shall 1 Dr. Yadwinder Singh Brar IKGPTU Main Campus 9478098013 Trana (Ex-officio) Professor	Board of Studies (Electrical Engineering)	STEAM CONTRACT	Nos	Name & Designation	Address	Phone	Email ID
Three Professors from the concerned department of University / Constitute Campus by rotation on the Campus by rotation on	Chairman	Head of Department shall act a Chairman (Ex-officio)	-	Dr. Yadwinder Singh Brar Professor	IKGPTU Main Campus	9478098013	ysbrar@ptu.ac.in
determined by the length of service of Professor. Three Associate Professors I Dr. Gagandeep Kaur IIT, Ropar Greenmined by the length of basis of seniority to be determined by the length of service as Associate Professors I Dr. Chakradhar Reddy IIT, Ropar Greenmined by the length of service as Associate Professors I Dr. Rakesh Kumar Group By rotation on the Construct Campus by rotation on the Campus by the length of Campus by rotation on the Campus campus by rotation of the Campus by rotation of the Campus campus by rotation of the Campus campus by rotation of the Campus campus campus by rotation of the Campus cam	Professors	Three Professors from the concerned department of University / Constitute Campus by rotation on the	-	Dr. Jagdish Kumar	Punjab Engineering College (PEC) University, Chandigarh	9041389731	jagdishkumar@pec.ac.in
Three Associate Professors 1 Dr. J.S.Dhillon SLJET, Longowal START. Longowal STARS833 Trom the concerned disciplines/ subjects in the University / Constituent Service as Associate Professor. Three Associate Professors 1 Dr. Chakradhar Reddy IIT, Ropar Group to busis of seniority to be determined by the length of service as Associate Professor. Three Assistant Professors 1 Dr. Rakesh Kumar from the concerned disciplines/ subjects in the University / Constitute Campus by rotation on the Dasis of Seniority to be determined by the length of basis of Seniority to be determined by the length of basis of Seniority to be determined by the length of the lengt		basis of seniority to be determined by the length of service of Professor.	7	Dr. Yog Raj Sood	NIT Hamirpur	09418058505	yrsood@nith.ac.in
from the concerned disciplines/ subjects in the University / Constituent Campus by rotation on the Professor. Three Assistant Professors I Dr. Rakesh Kumar from the concerned disciplines/ subjects in the University / Constitute Campus by rotation on the Concerned disciplines/ subjects in the Constitute Campus by rotation on the Constitute Campus by rotation on the Constitute Campus by rotation on the Cam			m	Dr. J.S.Dhillon	SLIET, Longowal	9779828833	jsdhillion@sliet.ac.in
Campus by rotation on the basis of seniority to be determined by the length of service as Associate Professor. Three Assistant Professors I Dr. Rakesh Kumar disciplines/ subjects in the Concerned disciplines/ subjects in the University / Constitute Campus by rotation on the basis of seniority to be determined by the length of	Associate Professors	Three Associate Professors from the concerned disciplines/ subjects in the University / Constituent	-	Dr. Gagandeep Kaur	IKGPTU Main Campus	9478098118	gaganee@ptu.ac.in
Professor. Three Assistant Professors 1 Dr. Rakesh Kumar from the concerned disciplines/ subjects in the University / Constitute Campus by rotation on the basis of seniority to be determined by the length of		Campus by rotation on the basis of seniority to be determined by the length of service as Associate	7	Dr. Chakradhar Reddy	IIT, Ropar	9417034192	reddyfee@iitr.ac.in
Three Assistant Professors 1 Dr. Rakesh Kumar from the concerned disciplines/ subjects in the University / Constitute Campus by rotation on the basis of seniority to be determined by the length of		E .	3	Dr. Kanwardeep Singh	GNDEC Ludhiana	9501411533	kds@gndec.ac.in, kds97dee@gmail.com
2 Dr. Navneet Singh Bhangu GNDEC, Ludhiana 9872827229	Assistant	Three Assistant Professors from the concerned	7	Dr. Rakesh Kumar Assistant Professor	IKGPTU Main Campus	9501029568	dr.rakeshbanga@ptu.ac.in
		University / Constitute Campus by rotation on the basis of seniority to be determined by the length of	2	Dr. Navneet Singh Bhangu	GNDEC, Ludhiana	9872827229	nsbhangu@gndec.ac.in

Dean (P&EP) I.K. Gujral Punjab Technical University, Jalandhar Kapurthala

Board of Studies of IKG Punjab Technical University Campus

sinchist Punjac Technical University, January, 1990

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One or more students form the concerned program for University Campus / Constitute Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS ashwani.k.sharma@nitkkr.ac.in One or more Alumni's form the concerned program for University Campus / Constitute Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS deepika.bhalla89@gmail.com Akhilgupta1977@gmail.com placements.ptu@gmail.com bedi.ptu@gmail.com Maintbul@gnaent.com, param7412@gmail.com drdilbag@gmail.com 9465884873 9478098040 9888492132 9888491602 9416366091 7508540590 Department of Electrical Engg., Main Campus IKGPTU Guru Nanak Auto Enterprises Limited., Phagwara, Punjab Deptt. of CR&A, IKGPTU IKGPTU Batala Campus NIT Kurkshetra NIT Jalandhar Dr. Deepika Bhalla, Assistant Professor EE Dy. Director / Assistant Director CR&A Deputy General Manager (operations) Assistant Professor Dr. Ashwani Kumar Er. Paramjit Singh Dr. Akhil Gupta Dr. Dilbag Singh 7 Chancellor in consultation Assistant Two Outside Expert from nominated by the Viceor Chairman, Board of Studies. with the Dean Academics Department of CR&A, IKGPTU not below the One Expert from industry and One Representative of rank of Assistant Director to be nominated by the consultation with the Dean Academics or Chairman, One Student of concerned University Constitute One Alumni of concerned University Constitute the Affiliated Professor concerned Constitute Organizations Board of Studies. Vice-Chancellor program from program form Assistant Universities the Professor department University service Campus Campus Campus Campus Colleges campus. from One Outside Expert Industry Expert Representative BOS Coordinator 上海に対 Student Alumni

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Communication Engg.)	in Engg.)		0		ruone	Email ID
Jean (r	Lest: (c. acta Chairman (Ex-officio)		Dr. Avtar Singh Buttar, HOD, ECE	Department of ECE, Main Campus IKGPTU	9478098053	danshavtar@redifmail.com
Professors	Three Professors from the concerned department of University / Constitute Campus by rotation on the	-	Dr. Manoj Kumar	DAVIET Jalandhar	9872803898	drmanojkumarindia@gmail.com
	basis of seniority to be determined by the length of service of Professor.	7	Dr. J.S. Sahmbi	IIT Ropar	9501030257	jssahambi@iitr.ac.in
		m	Dr. Sukhleen Bindra Narang	GNDU, Amritsar	0989068886	Sukhleen2@yahoo.co.in
Associate	Three Associate Professors from the concerned disciplines/ subjects in the University / Constituted	-	Dr. Satvir Singh	IKGPTU, Main Campus	9465884850	Drsatvir.in@gmail.com
	Campus by rotation on the basis of seniority to be determined by the length of	2	Dr. Jyoteesh Malhotra	GNDU, Regional Campus, Jalandhar	9781810380	Jyoteesh.ecejal@gmail.com
	Professor,	6	Dr. Raman K. Sunkaria	NIT Jalandhar	9780979984	sunkariark@nitj.ac.in
Assistant		-	Dr. Dalveer Kaur	IKGPTU main Campus	9478098066	dn_dogra@rediffinail.com
	Campus by rotation on the basis of seniority to be determined by the length of	64	Dr. Baljeet Kaur	GNDEC Ludhiana	9872544399	Baljeetkaur@gndec.ac.in
Jean (P&EP)	Jean (P&EP)					Page 3 28

Jean (P&EP)
K. Gujral Punjab Technical University, Jalandhar
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Other Outside Expert from 1 Dr. Ravindra Kumar Sharma Professor & Principal, Department of ECE, Ald Crack R. New Dehii NIT Jalandhar of Chancellor in consultation of Campus / Constitute	Interide Dunnet		n	Dr. Rakesh Kumar	IKGPTU Campus	9465884835	dr.rakeshbanga@ptu.ac.in
ustry Expert One Expert from industry and One Kepresentative of Chairment of CR&A, rank of Assistant Director or Chairment of CR&A, rank of Assistant Porceasan from University Campus / Campus / Campus / Affiliated Constitute of Campus / Constitute Campus / Affiliated Campus / Constitute Campus / Constitute Campus / Constitute Campus / Affiliated Campus / Constitute Campus / Constitute Campus / Affiliated Campus / Constitute Campus / Affiliated Campus / Affiliate	Outside Exper	Iwo Outside Expert froother Organizations Universities to nominated by the Vi	-	Dr. Ravindra Kumar Sharma	Professor & Principal, Department of ECE, AIACT&R, New Delhi	9811455921	21_ravindra@gmail.com
ustry Expert One Expert from industry and One Representative of CR&A, and One Aleminated by the concerned to be nominated by the consultation with the Dean Academics or Chairman, Board of Studies. In One Student of concerned to the Constitute Campus Alemini of concerned to the Amini of concerned to the Constitute Campus Affiliated Campus shill be called by the Coordinator in consulting with Chairman in the meeting of BOS one Assistant Professor of from the concerned from the concerned department of the Constitute Campus shill be called by the Coordinator in consulting with Chairman in the meeting of BOS one Assistant Professor of the Linear from the concerned department of the Constitute Campus in the meeting of BOS one Assistant Professor of the Linear from the concerned department of the Constitute Campus in the meeting of BOS one Assistant Professor of the Linear from the concerned department of the Constitute Campus in the meeting of BOS one Assistant Professor of the Linear from the concerned department of the Constitute Campus in the meeting of BOS one Assistant Professor of the Linear from the concerned department of the Constitute Campus in the meeting of BOS one Assistant Professor of the Linear from the concerned department of the Constitute Campus in the campus in the meeting of BOS one Assistant Professor of the Linear from the concerned the Constitute Campus in the Campus in t		lor in c Dean irman,	2	Dr. Arun K. Khosla	NIT Jalandhar	9888068332	khoslak@nitj.ac.in
RGPTU not below the rank of Assistant Director to the nominated by the concerned by the consultation with the Dean Academics or Chairman, and consultation with the Dean Academics or Chairman, and the concerned program from University Campus / Constitute Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS Indicator from the concerned department of ECE, Main Constitute Campus Cons	dustry Expert presentative		-	Dr. Balwinder Singh	C-DAC, Mohali	9888000646	balwinder@cdac.in
The Student of concerned and Students of Campus of Campus shall be called by the Coordinator in Campus of Campus shall be called by the Coordinator in Campus of Campu		IKGPTU not below the rank of Assistant Director to be nominated by the Vice-Chancellor in consultation with the Dean Academics or Chairman,	0	Et. Gurpreet Singh	Edgate Technology Pvt. Ltd, 6815th cross-1st Block, R.T. Nagar, Banglore-560032	9880170673	singh@edgate.in
program from University Campus / Constitute Campus / Affiliated Campus / Constitute Campus / Constitute Campus / Constitute Campus / Affiliated Colleges One Assistant Professor Dr. Rakesh Goyal, Assistant Professor Campus / Constitute Campus / Affiliated Colleges One Assistant Professor Dr. Rakesh Goyal, Assistant Professor Campus It Colleges One Assistant Of the Consulting with Chairman in the meeting of BOS Campus It Consulting with Chairman in the meeting of BOS Campus It Constitute Campus / Constitute Campus / Constitute Campus / Constitute Campus / Affiliated Colleges One Assistant Professor Dr. Rakesh Goyal, Assistant Professor Campus It Campus I	dent	One Student of concerned	-				
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One Assistant Professor 1 Dr. Rakesh Goyal, Assistant Professor Department of ECE, Main 9988834220 Campus IKGPTU University 1 Conditions		One Alumni of concerned program form University Campus / Constitute Campus / Affiliated	-	One or more Alumni's form the concerned program for University Campus / Constitute Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS			
	dinator	Assistant the the the the the the the the the th	1-	Dr. Rakesh Goyal, Assistant Professor	Department of ECE, Main Campus IKGPTU	9988834220	drrakeshgoyal15@gmail.com

00 J	Engineering), and bearing to strain a supering strain a supering strain (bearing)		Name & Designation	Address	Phone	Email ID
	Head of Department shall act a Chairman (Ex-officio)		Dr. Neelkanth Grover, Assoc. Prof. and Head	Department of Mechanical Engineering, IKGPTU, Kapurthala	9855857900	dr.neelkanthgrover@ptu.ac.in
	concerned department of University / Constitute Campus by rotation on the	-	Dr. Vikas Chawla, Prof. & Incharge, Hoshiarpur Campus	IKGPTU Hoshiarpur Campus, Hoshiarpur	9417953530	vikas.chawla@ptu.ac.in
	basis of seniority to be determined by the length of service of Professor.	64	Dr. Harmesh Kansal, Professor & Head	UIET, Panjab University, Chandigarh	9417270363	harmeshkansal@gmail.com
		es .	Dr. Buta Singh Sidhu	Dean (P&D), MRSPTU, Bathinda	9501109002	butasidhu@yahoo.com
	Three Associate Professors from the concerned disciplines/ subjects in the University / Constituent		Dr. Arun Kumar Asati, Assoc. Prof.	SBSSTC, Ferozepur	8283803650	arunkasati@yahoo.com
	Campus by rotation on the basis of seniority to be determined by the length of service as Associate	2	Dr. R.P. Gakkhar	Professor (Rt), IIT Roorkee, R/o B-7, Hill View Apt.; IIT Roorkee Campus, Roorke	9837422780	
	Professor.	m	Dr. Jaswinder Singh Saini, Assoc. Prof.	Thapar Institute of Engg. & Tech. (Deemed to be Univ.), Patiala	9815651835	jsaini@thapar.edu
	stan	-	Dr. Divendar Priyadarshi	DAVIET, Jalandhar	9872067770	priyadarshidevinder@gmail.com
	University / Constitute Campus by rotation on the	12	Dr. Amoljit Singh, Assistant Prof.	IKGPTU, Kapurthala	9465884839	dr.asgill@ptu.ac.in

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Dean (P&EP)

I.K. Gujral Punjab Technical University, Jalandhar
Kapurthala

Board of Studies of IKG Punjab Technical University Campus

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	determined by the length of service as Assistant	6	Dr. Vivek Aggarwal, Assistant Prof.	IKGPTU, Kapurthala	9465884856	dr.vivekagograsi@nhi ac in
Outside Expert	Professor Two Outside Evn	ŀ	D. C			was was con
			Dr. Satinder Pal Singh	Department of Mechanical Engineering, IIT Delhi	011-26591136	singhsp@mech.iitd.ernet.in spsingh100@gmail.com
		7	Dr. Harpreet Singh, Professor	IIT Ropar, Roopnagar	9855709052	harpreetsingh@itrpr.ac.ins
Industry Expert / Representative			Dr. Sandeep Chug, Director	CAx Services (India) Pvt. Ltd., Chandigarh	7087538221	connect@caxserv.com
	Chancellor in consultation with the Dean Academics or Chairman, Board of Studies.	7	Dy. Director / Assistant Director CR&A	Deptt. of CR&A, IKGPTU	9478098040 9478098076	placements.ptu@gmail.com bedi.ptu@gmail.com
Student	One Student of concerned program from University Campus / Constitute Campus	-	One or more students form the concerned program for University Campus / Constitute Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS			ı
	One Alumni of concerned program form University Campus / Constitute Campus / Affiliated Colleges		One or more Alumni's form the concerned program for University Campus / Constitute Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS		1	ł
BOS Coordinator	One Assistant Professor from the concerned department of the University / Constitute	-	Dr. Manoj Mittal, Assistant Prof.	IKGPTU, Kapurthala	9478098026	manojmittal74@gmail.com
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Dear (P&EP)
I.K. Gujral Punjab Technical University, Jalandhar

Page 7128

Board of Studies of IKG Punjab Technical University Campus

Address Phone Email ID		Department of CSE, Main 9465884822 Monasach1975@gmail.com	Deptt. of CSE, NITTIR, 9417494811 rkc_97@yahoo.com	Khalsa College of Engineering 9878402703 Drmanju571@gmail.com & Technology, Amritsar	Professor, Punjabi University, 9872071703 mahal2k&@gmail.com	Deptt. of CSE, NIT, Jalandhar 9888582299 sikkag@nitj.ac.in	Deptt. of CSE, NIT, Hamirpur 9418094345 nar@nith.ac.in	GNDEC, Ludhiana 9876700810	Department of CSE Main 9465884833 dr.anshubhasin@ptu.ac.in	Dept. of CSE, GNDU 9888889787 pankajdeepkaur@gmail.com	
Name & Designation	Dr. Monika Sachdava HOD OSE	De Borner With	Ot. redula refishina	Dr. Manju Bala	Dr. Lakhwinder Kaur	Dr. Geeta Sikka	Dr. Narotam Chand	Dr. Jasbir Singh Saini	Dr. Anshu Bhasin, Assistant Professor	Dr. Pankaj Deep Kaur	Dr. Sumeet Kaur Sohra
Board of Studies (Computer Science Engg./ Nos Information Technology)	Head of Department shall	Three Professors from the	concerned department of University / Constitute	determined by the length of service of Professor.	3	Three Associate Professors 1 from the concerned disciplines/ subjects in the	Campus by rotation on the 2 basis of seniority to be determined by the length of service as Associate		Three Assistant Professors 1 from the concerned disciplines/ subjects in the	University / Constitute 2 Campus by rotation on the basis of seniority to be	determined by the length of 3
Board of Studies (Compu	Chairman	Professors	8 , 2	\$		Associate 7 Professors f	8 6 9 0	<u>a</u>	Assistant Trofessors fr	D 0 8 4	5

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Deptt. of CSE, GNDU, Regional Campus, Gurdaspur	HOD CSE, Thapar Institute of Engineering & Technology, Patiala	Senior Consultant, Tata Consultancy, Gurgaon, Haryana	Deptt. of CR&A, IKGPTU			Department of CSE, Main Campus IKGPTU
1 Dr. Sandeep Sood	Dr. Maninder Singh, Professor	Mr. Rajeev Bansal	Dy. Director / Assistant Director CR&A	One or more students form the concerned program for University Campus / Constitute Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS	One or more Alumni's form the concerned program for University Campus / Constitute Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS	Dr. Alok Kumar Singh Kushwaha, Assistant Professor
	on 2 es.	-	2 de 26 e 26 e 36 e 36 e 36 e 36 e 36 e 36	1 2 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	- B & B B	- e e d
Two Outside Expert from other Organizations / Universities Profile be nominated spy ther Vice-	Chancellor in consultation with the Dean Academics or Chairman, Board of Studies.	One Expert from industry and One Representative of Department of CR&A, IKGPTU not below the rank	of Assistant Director to be nominated by the Vice- Chancellor in consultation with the Dean Academics or Chairman, Board of Studies.	One Student of concerned program from University Campus / Constitute Campus	One Alumni of concerned program form University Campus / Constitute Campus / Affiliated Colleges	or from the concerned department of the Constitute
Outside Expert		Industry Expert			Alumni	Bos Coordinator

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Board of Studies of IKG Punjab Technical University Campus.

Head of Department shall	Dr. Harmeen Soch HOD Manageree	Address	Phone	Email ID
act a Chairman (Ex-officio)	oca, not management	Department of Management Main Campus, IKGPTU	9478098051	harmeensoch@yahoo.com
concerned department of University / Constitute Campus by rotation on the	1 Dr. S.K. Singla	LCET, Ludhiana	9988027462	Drsingla11@gmail.com
determined by the length of service of Professor.	2 Dr. Gautam Bansal	Director, PCTE, Baddowal, Ludhiana	9781018555	gautam@pcte.edu.in
	3 Dr. Manisha Gupta	Director, PIMT, Mandi Gobindgarh	9356253001	Manisha.gupta@pimt.info
Three Associate Professors from the concerned disciplines/ subjects in the University / Constituent	1 Dr. Parampal Singh	GNDEC, Ludhiana	9815903230	param351@yahoo.com
Campus by rotation on the basis of seniority to be determined by the length of	2 Dr. Sandhya Mehta	GNIMT, Ludhiana	8872827777	mehtasandhya@yahoo.com
Associate	3 Dr. SJS Bedi	NIT Jalandhar	9872389999	bediss@nitj.ac.in
Three Assistant Professors from the concerned	1 Dr. Kapil Gupta	Department of Management,	9478098074	kapilfutures@gmail.com
disciplines/ subjects in the University / Constitute Campus by rotation on the	2 Dr. Mandeep Kaur	Department of Management, IKGPTU main campus	9478098056	mandeeparora.ptu@gmail.com

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Dean (P&EP)
I.K. Gujral Punjab Technical University, Jalandhar
Kapurthala

Board of Studies of IKG Punjab Technical University Campus

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Pooja24k@gmail.com	aschawla_2000@yahoo.com	bikrammann@hotmail.com		placements.ptu@gmail.com bedi.ptu@gmail.com			Pooja24k@gmail.com
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Department of Management, IKGPTU main campus	Vice Chancellor, RIMT University, Mandi Gobindgarh	Professor, UBS, GNDU, Amritsar		Depit. of CR&A, IKGPTU	•	1	Department of Management Main Campus, IKGPTU
Ur. Pooja Mehta	Dr. A.S. Chawla	Dr. Bikram Singh Mann	CII Nominee	Dy. Director / Assistant Director CR&A	One or more students form the concerned program for University Campus / Constitute Campus shall be called by the Coordinator in consulting with Chairman in the meeting of ROS	One or more Alumni's form the concerned program for University Campus / Constitute Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS	
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Service (as Assistant Professor	Two Outside Expert from other Organizations / Universities to be nominated by the Vice-	Chancellor in consultation with the Dean Academics or Chairman, Board of Studies.	One Expert from industry and One Representative of Department of CR&A, IKGPTU not below the rank	or Assistant Director to be nominated by the Vice-Chancellor in consultation with the Dean Academics or Chairman, Board of Studies.	One Student of concerned program from University Campus / Constitute	One Alumni of concerned program form University Campus / Constitute Campus / Affiliated Colleges	One Assistant Professor from the concerned department of the University / Constitute
	Outside Expert		Industry Expert				BOS Coordinator ff

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I.K. Gujral Punjab Technical University, Jala:
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Campus by rotation on the determined by the length of service as Assistant Professor Campus by rotation on the Concerned disciplines' subjects in the Concerned disciplines' subjects in the Constituent Campus of Seniority to be determined by the length of service as Assistant or the Constituent Campus by rotation on the Concerned disciplines' subjects in the Constituent Campus by rotation on the Concerned disciplines' subjects in the Constituent Campus by rotation on the Concerned disciplines' subjects in the Constituent Campus of Seniority to be determined by the length of Seniority to Se		ree-Professors from neemed department iversity / Constit	-	Dr. A. P. Singh	NIT, Jalandhar	9915849178	singhap@nitj.ac.in
Three Associate Professors 1 Dr. Geeta Atora from the concerned disciplines/ subjects in the Campus by trotation on the Associate Professor. Three Associate Professors 1 Dr. Geeta Atora from the concerned determined by the length of service as Associate Professor. Three Assistant Professors 1 Dr. Dwarka Sistent by the length of campus by rotation on the Campus by the length of Seriority to be determined by the length of Seriority to Seriorit		Campus by rotation on the basis of seniority to be determined by the length of service of Professor.	7	Dr. Sanjay Kumar Singh	Professor Civil Engg., PEC University Chandigarh	9888695126	sksingh99_99@yahoo.com
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Campus by rotation on the basis of seniority to be determined by the length of disciplines by rotation on the basis of seniority to be determined by the length of service as Associate Campus by rotation on the basis of seniority to be determined by the length of service as Assistant Professor I Dr. Maninder Singh Three Assistant Professors I Dr. Maninder Singh Three Assistant Professors I Dr. Maninder Singh Three Assistant Professors I Dr. Maninder Singh Three Assistant Professor I Dr. Maninder Singh Three Assistant Professor I Dr. Maninder Singh Three Assistant Assistant I Dr. Maninder Singh Three Assistant I Dr. Maninder Singh Three Assistant I Dr. Maninder Singh Thappar University, Patiala 91-8699033170 The Assistant Assistant Assistant Assistant Assistant Assistant Assistant Professor IIMGPTU, Hostniarpur Campus 91-7986032505	ssociate	Three Associate Professors from the concerned disciplines/ subjects in the	-	Dr. Geeta Arora	PEC, Chandigarh	9915227490	geetaarora@pec.ac.in
determined by the length of service as Associate Professor. Three Assistant Professors from the concerned disciplines/ subjects in the University / Constitute Campus by rotation on the basis of seniority to be determined by the length of service as Assistant 3 Dr. Rinku Walia Runar Professor Thappar University, Patiala 91-8360270224, 9780696728 Professor		University / Constituent Campus by rotation on the basis of seniority to be		Dr. Vijay Shankar Dogra	NIT, Hamirpur	+91-94184- 64896	vsdogra@nith.ac.in
Three Assistant Professors I Dr. Maninder Singh from the concerned disciplines/ subjects in the University / Constitute Campus by rotation on the basis of seniority to be determined by the length of service as Assistant 3 Dr. Rinku Walia IKGPTU, Hoshiarpur Campus 91-7986032505		determined by the length of service as Associate Professor.		Dr. Dwarka	Thappar University, Patiala	91-8360270224, 9780696728	dnath.ratha@thapar.edu
2 Dr. Kamal Kumar PEC, Chandigarh 91-7889037607 3 Dr. Rinku Walia IKGPTU, Hoshiarpur Campus 91-7986032505	Ssistant	Three Assistant Professors from the concerned disciplines/ subjects in the	-	Dr. Maninder Singh	Punjabi Univesity, Patiala	91-8699033170	maniravi79@gmail.com
3 Dr. Rinku Walia IKGPTU, Hoshiarpur Campus 91-7986032505		Campus by rotation on the basis of seniority to be determined by the length of		Or. Kamal Kumar	PEC, Chandigarh	91-7889037607	kamalkumar@pec.ac.in
		service as Assistant Professor		Dr. Rinku Walia	IKGPTU, Hoshiarpur Campus	91-7986032505	waliarinks@rediffmail.com
Outside Expert from 1 Dr. R. K. Sharma NIT Hamirpur 94181-15102 ravi@ni	tside Expert	Iwo Outside Expert from ther Organizations /		Jr. R. K. Sharma	NIT Hamirpur	94181-15102	ravi@nith.ac.in

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Board of Studies of IKG Punjab Technical University Campus

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	nominated by the Vice-Chancellor in consultation with the Dean Academics or Chairman. Board of Studies	8	Dr. Rafat Siddique	Thappar University, Patiala	91-9876078644	rsiddique@thapar.edu
Industry Expert / Representative	One Expert from industry and One Representative of Department of CR&A,	-	CII Nominee	To be nominated by CII		
	IKGPTU not below the rank of Assistant Director to be nominated by the Vice-Chancellor in consultation with the Dean Academics or Chairman, Board of Studies.	2	Dy. Director / Assistant Director CR&A	Deptt. of CR&A, IKGPTU	9478098040	placements.ptu@gmail.com bedi.ptu@gmail.com
Student	One Student of concerned program from University Campus / Constitute Campus	_	One or more students form the concerned program for University Campus / Constitute Campus shall be called the Coordinator in consulting with Chairman in the model of the Chairman in the chairman in the chairman in the model of the Chairman in the chairman		1	l.
Alumni	One Alumni of concerned program form University Campus / Constitute Campus / Affiliated Colleges	-	One or more Alumni's form the concerned program for University Campus / Constitute Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS	1	ı	
BOS	One Assistant Professor from the concerned department of the University / Constitute	-	Mr Md. Fuzail Jawaid, Assistant Professor (Arch)	Department of Civil Engg. Main Campus, IKGPTU	9465884806	mfjawaid@ptu.ac.in

Dean (P&EP)

K. Gujal Punjab Technical University, Jalandha
Kapurthala

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Head of Department shall a detachment and Ex-officiol act a Chainman (Ex-officiol) Three Professors from the concerned department of Food Science & 9478098021 Three Professors from the concerned department of Food Science & 9478098021 Three Associate Professors I Dr. Manbir Singh, Associate professor from the concerned despitings subjects in the Campus by rotation on the Busis of seniority to be determined by the length of Seniority to be determined by th	Board of Stin Engineering)	Board of Studies (Food Science and Engineering)	Nos	Name & Designation	Address	Phone	Email ID
Three Professors from the concerned department of Food Science & 9417942136 Campus by cratico on the basis of seniority to be determined by the length of service of Professors In Dr. Manbir Singh, Associate Professor In Dr. Manbir Singh, Assistant Professor In Dr. Manbir Dr. Manbir Olina, Assistant Professor In Dr. Manbir Singh, Assistant Professor In Dr. Manbir Singh, Assistant Professor In Dr. Manbir Singh, Assistant Professor In Dr. Ma	Chairman		-	Dr. Rajneesh Sachdev, Food Sci. & Tech.	Department of Food Science & Technology, IKGPTU, Main		pturajneesh@ptu.ac.in hodfe@ptu.ac.in
Campus by rotation on the length of seniority to be determined by the length of service as Assistant Professor a service as Assistant Professor from the concerned from the Associate Professor from the Assistant Professo	rofessors	Three Professors from the concerned department of	-	Dr. Balmeet Singh Gill, Professor	Department of Food Science & Technology (3ND) Amritear	9417942136	balmeet.food@gndu.ac.in
Service of Professor. Three Associate Professors of Service as Assistant Professor. Three Associate Professors I Dr. Manbir Singh, Associate professor of Service as Assistant Professor. Three Associate Professors I Dr. Manbir Singh, Associate professor of Service as Assistant Professor. Three Associate Professors I Dr. Bindu, Associate Professor of Service as Assistant Professor as Dr. Ankur Ojha, Assistant Professor as Department of FST, National 8238430214		Campus by rotation on the basis of seniority to be determined by the length of	2	Dr. Kamlesh Prasad, Professor	Department of Food Engineering & Technology, Sant Longowal Engineering &	9417741225	dr_k_prasad@rediffmail.com
Three Associate Professors I Dr. Manbir Singh, Associate professor disciplines, subjects in the Campus by rotation on the Professor Sasistant Professor I Dr. Barinderjit Singh, Assistant Professor Campus by rotation on the Assistant Professor I Dr. Buluipinder Singh, Assistant Professor Sasistant by rotation on the Campus by rotation on the Assistant Professor I Dr. Buluipinder Singh, Assistant Professor Campus by rotation on the Campus by rotation by rotation by rotation by rotati		service of Professor.	m	Dr. Vikas Nanda, Professor	Department of Food Engineering & Technology, Sant Longowal Engineering &	9815980054	vik164@yahoo.co.in
Campus by rotation on the basis of seniority to be determined by the length of cannon the concerned disciplines/ subjects in the Campus by rotation on the basis of seniority to be determined by the length of service as Assistant Professor I Dr. Bhuipinder Singh, Assistant Professor Service as Assistant Professor Assistant Professor I Dr. Bhuipinder Singh, Assistant Professor Service as Assistant Professor I Dr. Ankur Ojha, Assistant Professor Department of Food technology, PanniwalaMota, Sirsa, Haryana Department of Food Science & 9465491049 Technology, Guru Nanak Dev Professor Chivity Sirght Amritsar 143002 Rrishi Vigyan Kendra 9814245666 Krishi Vigyan Kendra 9814245666 Krishi Vigyan Kendra 9814245666 Krapurthala. Campus Professor Campus Campus Campus Campus Service as Assistant Professor Service as Assistant Professor Sirsa, Haryana 3 Dr. Ankur Ojha, Assistant Professor Department of Food technology, PanniwalaMota, Sirsa, Haryana Brofessor Department of Food technology, PanniwalaMota, Sirsa, Haryana Department of Food Science & 9465491049 Technology, Guru Nanak Dev Professor Professor Chaptus Department of Food Science & 9478098069 Technology, Guru Nanak Dev Professor Profes	sociate	Three Associate Professors from the concerned disciplines/ subjects in the		Dr. Manbir Singh, Associate professor	Department of Food Science & Technology, Khalsa College, Amritsar	9815195222	manb_s@yahoo.com
Three Assistant Professors 1 Dr. Brindu, Associate Professor Krishi Vigyan Kendra 9814245666 Three Assistant Professors 1 Dr. Barinderjit Singh, Assistant Professor from the concerned disciplines/ subjects in the University / Constitute Campus by rotation on the basis of seniority to be determined by the length of service as Assistant 3 Dr. Ankur Ojha, Assistant Professor Department of FST, National 8238430214		Campus by rotation on the basis of seniority to be determined by the length of service as Associate	N	Dr. Amritpal Kaur, Associate professor	Department of Food Science & Technology, Guru Nanak Dev University Amritsar 143002	9465491049	amritfl33@yahoo.co.in
Three Assistant Professors 1 Dr. Barinderjit Singh, Assistant Professor from the concerned disciplines/ subjects in the University / Constitute Campus by rotation on the basis of seniority to be determined by the length of service as Assistant Professor 3 Dr. Ankur Ojha, Assistant Professor Department of FST, National 8238430214		Professor,	60	Dr. Bindu, Associate Professor	Krishi Vigyan Kendra	9814245666	kvk.kapurthala@pan.edu
2 Dr. Bhuipinder Singh, Assistant Professor Department of food technology, 7009361127 Chaudhary Devi Lal State Institute Of engineering And technology, PanniwalaMota, Sirsa, Haryana 3 Dr. Ankur Ojha, Assistant Professor Department of FST, National 8238430214	sistant	Three Assistant Professors from the concerned disciplines/ subjects in the University / Constitute	-	Dr. Barinderjit Singh, Assistant Professor	Napurthala. Department Food Science & Technology, IKGPTU, Main Campus	9478098069	dr.bsingh@ptu.ac.in
Dr. Ankur Ojha, Assistant Professor Department of FST, National 8238430214		Campus by rotation on the basis of seniority to be determined by the length of service as Assistant Professor		Dr. Bhuipinder Singh, Assistant Professor	Department of food technology, Chaudhary Devi Lal State Institute Of engineering And technology, PanniwalaMota, Sirsa, Harvana	7009361127	bhupimander@rediffmail.com
				Dr. Ankur Ojha, Assistant Professor	Department of FST, National	8238430214	aojha.niftem@gmail.com

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	bhupindarkhatkar@gmail.com	dnyadav1977@yahoo.co.in	ss.cpri@gmail.com	placements.ptu@gmail.com bedi.ptu@gmail.com	•	•	ap.ft@ptu.ac.in
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Entrepreneurship and Mgt, Kundli, Sonepat, Haryana	GJUST, Hisar	ICAR- CIPHET, ICAR, Ludhiana, Punjab	Central Potato Research Station (CPRS) Village Badshahpur, Jalandhar 2 KM from TV Tower towards Nakodar Jalandhar - 144 003 Punjab	Deptt. of CR&A, IKGPTU	•		Department of Food Science and Engineering, Main Campus, IKGPTU
P. Dough	Df. B.S.Khatkar , Professor	Dr. Deep Narayan Yadav	Er. Sukhwinder Singh, Scientist (SG)	Dy, Director / Assistant Director CR&A	One or more students form the concerned program for University Campus / Constitute Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS	One or more Alumni's form the concerned program for University Campus / Constitute Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS	Dr. Barinderjit Singh, Assistant Professor
Two Ontside Expert from 1		with the Dean Academics or Chairman, Board of Studies.		Chancellor in consultation 2 with the Dean Academics or Chairman, Board of Studies.	One Student of concerned 1 program from University Campus / Constitute	One Alumni of concerned 1 program form University Campus / Constitute Campus / Affiliated Colleges	One Assistant Professor I from the concerned department of the University / Constitute campus.
Outside Expert			Industry Expert / Representative			Alumni	BOS Coordinator

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Board of Studies of IKG Punjab Technical University Campus

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Springle (Publ 19) Assistant	1 Dr. Sandeep Dua Professor, GNDU Amritsar	2 Dr. Satish Pipralia Associate Professor, Malaviya National Institute of Technology, Jaipur	to be nominated by the Vice-Chancellor in consultation with the Dean Academics or Chairman, Board of Studies.	One Student of concerned 1 One or more students form the concerned program Program from University for University Campus / Campus / Constitute be called by the Coordinator in consulting with Campus Campus Chairman in the meeting of BOS	One Alumni of concerned 1 One or more Alumni's form the concerned program form University Campus / Constitute Campus / Affiliated consulting with Chairman in the meeting of BOS	One Assistant Professor 1 Ar. Jyoti Singh, Assistant Professor Department of Architecture, 9478098123 IKGPTU Moahli Campus -II University / Constitute
	9872253455 Duasandeep18@rediffmail.com	9549658126 spipralia.arch@mnit.ac.in	18040 placements.ptu@gmail.com		1	8123 pitkhunnimajra@gmail.com

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I.K. Gujral Punjab Technical University, Jalandhar
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Board of Studies (Communications)	Board of Studies (Journalism and Mass Communications)	Nos	Name & Designation	Address	Phone	Email ID
Chairman	Head of Department shall act a Chairman (Ex-officio)		Dr. Ranbir Singh Associate Professor	Head, Department of JMC, IKGPTU, Kapurthala	9478098070	ranbirdoaba@gmail.com
Professors	Three Professors from the concerned department of University / Constitute		Prof. (Dr.) Navjit Singh Johal	Department of Journalism & Mass Communication, Punjabi	9815551476	navjitjohal@redifmail.com
	basis of seniority to be determined by the length of		Prof. (Dr.) Harish Kumar	Department of Journalism & Mass Communication, MDU, Rohtak	9416051022	harishmdu@yahoo.co.in
	service of Professor.	m	Prof. (Dr.) Pradeep Naîr	Central University of Himachal Pradesh, Dharamshala (HP)	9816600218	nairdevcom@gmail.com
Associate Professors	Three Associate Professors from the concerned disciplines/ subjects in the	-	Dr. Namarta Joshi Head & Associate Professor	Department of Journalism & Mass Communication, GNDU, RC, Jalandhar	9814325202	Namartajoshi1@gmail.com
	Campus by rotation on the basis of seniority to be	2	Dr.Vikas Dogra	Department of Journalism & Mass Communication, HPU Shimla	9418033126	Vikasdogra77@gmail.com
	Service as Associate Professor.	8	Dr. Bindu Sharma	Institute of Mass Communication & Media Technology Kurukshetra	9878822706	bindusharma@kuk.ac.in
Assistant	Three Assistant Professors from the concerned disciplines/ subjects in the		Dr. Sarabjit Singh	Department of Journalism & Mass Communication	9478098061	mannrabia@gmail.com
	Campus by rotation on the basis of seniority to be	7	Dr. Shikha Rai	School of Communication Studies, IGNOU, New Delhi	9968299799	shikharai@ignou.ac.in
	determined by the length of service as Assistant Professor	e e	Dr. Ashok Kumar Sharma	Institute of Mass Communication & Media Technology Kurukshetra University, Kuruschtra	9813155366	lectashok@gmail.com

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Kapurthala

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9418168234	9414096478	9999064900	9478098040 9478098076	1	ı	9815188835
Department of Journalism & Mass Communication , HPU, Shimla	Department of Journalism & Mass Communication , Central University of Jammu	Aaj Tak TV, Noida	Deptt. of CR&A, IKGPTU		ı	Department of Journalism & Mass Communication, Main Campus IKGPTU
Prof.Virbala Aggarwal	Dr. (Prof.) Govind Singh	Sh. Munish Devgan Senior Producer	Dy. Director / Assistant Director CR&A	One or more students form the concerned program for University Campus / Constitute Campus shall be called by the Coordinator in consulting with Chairman in the mosting of DOC	One or more Alumni's form the concerned program for University Campus / Constitute Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS	Dr. Ekta Mahajan, Assistant Professor
	7	-	2			-
	Chancellor in consultation with the Dean Academics or Chairman, Board of Studies.		to be nominated by the Vice-Chancellor in consultation with the Dean Academics or Chairman, Board of Studies.	One Student of concerned program from University Campus / Constitute Campus	One Alumni of concerned program form University Campus / Constitute Campus / Affiliated Colleges	One Assistant Professor from the concerned department of the University / Constitute campus.
		Industry Expert / Representative		Student	Alumni	BOS Coordinator

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Dean (P&EP)
K. Gujral Punjeb Technical University, Jalandhar
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uedva en	Two Outside Expert from other Organizations / Universities to be nominated by the Vice-Chancellor in consultation	-	Dr. AnkushAmbardar, Assistant Professor	Department of Hotel Management and Tourism Krukshetra University, Kurukshetra (Haryana)	9466942556	ankushambardar@rediffmail.com
		7	Dr. Hardaman Singh Bhinder, Assistant Professor	Department of Tourism, Hospitality and Hotel Management, Punjabi University. Patiala	9501204656	Hardaman.bhinder@gmail.com
Representative			Dr. Sandeep Malik, Assistant Professor	Institute of Hotel Management, Maharshi Dayanand University, Rohtak	9416350585	Smalik02@gmail.com
	rank of Assistant Director to be nominated by the Vice-Chancellor in consultation with the Dean Academics or Chairman, Board of Studies.	7	Dy. Director / Assistant Director CR&A	Deptt. of CR&A, IKGPTU	9478098040	placements.ptu@gmail.com
Student	One Student of concerned program from University Campus / Constitute Campus		One or more students form the concerned program for University Campus / Constitute Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS		1	
Alumni	One Alumni of concerned program form University Campus / Constitute Campus / Affiliated Colleges		One or more Alumni's form the concerned program for University Campus / Constitute Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS		•	•
BOS Coordinator	One Assistant Professor from the concerned department of the University / Constitute campus.		Dr. Mandeep Kaur, Assistant Professor	Department of Management, Main Campus IKGPTU	9478098056	mandeeparoral.ptul@gmail.com

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Dean (PKEP)

I.K. Gujral Punjab Technical University, Jalandt.

Kapurthala

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Board of Studies of IKG Punjab Technical University Campus		ion Address Phone Email ID	Department of Physical 9465884849 amitsarin@ptu.sciences, IKG Punjab Technical University, Main	Department of Physics, 998803134 arvinders@nitj.ac.in		Department of Applied 9872150166 drdogra@yahoo.com Sciences, Beant College of Engg. and Technology,	fessor) Department of Physics, 9417119665 mittalhm@nitj.ac.in NIT Jalandhar	Professor) Department of Physics, 9888980154 dahiyah@nitj.ac.in NIT Jalandhar	Department of Physics, 9041908468 ashok@pu.ac.in Panjab University, Chandigarh	ofessor) Department of Physical 9465884828 manisaini153@gmail.com Sciences, IKG Punjab Technical University, Main camous. Kanurhala	
Board of Studies of I		Name & Designation	Dr. Amit Sarin (Associate Professor)	Dr. Arvinder Singh (Professor)	Dr. Nareshpal Singh Saini (Professor)	Dr. Rakesh Dogra (Professor)	Dr. H. M. Mittal (Associate Professor)	Dr. Harleen Dahiya (Associate Professor)	Dr. Ashok Kumar (Associate Professor)	Dr. Maninder Kaur (Assistant Professor)	Dr. Varinderjit Singh (Assistant Professor)
Suque.		Nos	T - k			m s			m		7
K 198 bruist equites fundicular assume.	Board of Studies (Physical Seterator	ues (r nysical ociences)	Head of Department shall act a Chairman (Exofficio)	Three Professors from the concerned department of	Campus by rotation on the basis of seniority to be	of service of Professor.	Three Associate Professors from the concerned disciplines/ subjects in the University	rotation on the basis of seniority to be determined by the length of service as	Associate ITOlessor.	Three Assistant Professors from the concerned disciplines/ subjects in the University	rotation on the basis of seniority to be determined
K. cythal panist, p.	Board of Stud		Chairman	Professors			Associate Professors			Assistant Professors	

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Kapurthala

Board of Studies of IKG Punjab Technical University Campus

IKG Punjab Technical University, Amritsar campus, Amritsar Department of Physics, Guru Nanak Dev University, Amritsar Department of Physics, Guru Department of Physics, Guru NATTTR, Sector 26, Department of Physics, O417324956 Divash@pu.ac.in Panjab University, Chandigarh NITTR, Sector 26, Deptt. of CR&A, IKGPTU 9478098076 Dedi.ptu@gmail.com Deptt. of CR&A, IKGPTU 9478098076 Dedi.ptu@gmail.com
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I.K. Gujral Punjab Technical University, Jalandhar
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2 Dr. Roopa Kapurthala Department of Chemical 9465884844 Sciences LK. Gujral Punjab	sistant	Three Assistant Professors from the concerned disciplines/ subjects in the University / Constitute	-	Dr. Rupesh Kumar	Institute, New Delhi Department of Chemical Sciences I.K. Gujral Punjab Technical University,	9465884829	rupesh.manak@gmail.com
I COMMISSION OF THE PRINCE OF		Campus by rotation on the basis of seniority to be determined by the length of		Dr. Roopa	Kapurthala Department of Chemical Sciences I.K. Gujral Punjab Technical University,	9465884844	roopa_noel@yahoo.co.in

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I.K. Gujal Punjab Technical University,
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with the Dean Academics or Chairman of Charmator of Chairman and Sarte from industry of Assistant Poerar from industry of Assistant Director of CR&A in the Dean Academics or Chairman and One Alumin of concerned of Constitute Campus / Constitute Campus / Constitute of Campus / Campu	itside Exper	Two Outside Expert frother Organizations Universities to nominated by the Vi	-	Professor (Dr.) B.S. Kaith	Kapurthala Department of Chemistry Dr B.R. Ambedkar National Institute of Technology,	9780684883	kaithbs@nitj.ac.in
resentative Dee Expert from industry and One Representative of CR&A, IKGPTU or below the rank of Assistant Director to be nominated by the Vice-Chancellor in consultation with the Dean Academics or Chairman, Board of Studies Campus / Constitute Campus / Campus / Campus / Campus / Campu		Chancellor in consultat with the Dean Academics Chairman, Board Studies.	7	Professor (Dr.) Subodh Kumar	Jalandhar Department of Chemistry Guru Nanak Dev University, Amritsar	9872361528	subodh_gndu@yahoo.co.ir
chancellor in consultation with the Dean Academics or Chairman, Board of Studies. Chairman from University Campus Constitute Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS One Aussitant Professor I Dr. Reshu Talwar, Assistant Professor Gepartment of the Constitute Campus in the Constitute Campus of the Constitute Campus shall be called by the Coordinator in Consulting with Chairman in the meeting of BOS One Assistant Professor I Dr. Reshu Talwar, Assistant Professor Gepartment of the Constitute Campus Studies Campus Campus Studies Campus Studi	ustry Experi	Control of the last of the las	-	Dr. Bilash Kuila	Sr. Scientist-1 (WL7), Medicinal Chemistry Aurigene Discovery Technologies Limited	9871318793	bkuila23@gmail.com
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Program form University Campus / Constitute Campus / Constitute Campus / Constitute Campus / Constitute Campus / Affiliated Colleges One Assistant Professor I Dr. Reshu Talwar, Assistant Professor Gepartment of the University / Constitute Campus / Affiliated Campus / Affiliated Consulting with Chairman in the meeting of BOS Gepartment of the University / Constitute Campus /	ent	One Student of concerned program from University Campus / Constitute Campus		One or more students form the concerned program for University Campus / Constitute Campus shall be called by the Coordinator in consulting with Chairman in the meeting of ROS		r	1
dinator from the concerned department of the University / Constitute		One Alumni of concerned program form University Campus / Constitute Campus / Affiliated Colleges		One or more Alumni's form the concerned program for University Campus / Constitute Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS			
	dinator	sistant Profe the conce nt of	-	Dr. Reshu Talwar, Assistant Professor	Department of Chemical Sciences, Main Campus IKGPTU	9463725685	reshusanan@gmail.com

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I.K. Gujral Punjab Technical University, Jalandhar Kapinethala

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Board of Studies of IKG Punjab Technical University Campus

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Head of Department shall a determined by the length of Constituen the concerned department shall a determined by the length of Satish Kumar Sharma (Ex-officio) and the concerned department of Dr. D.S. Pathania (BBSBEC, Fatchgarh Sahib 99142 determined by the length of Satish Kumar Sharma (Broffines abjects in the Associate Professor and Dr. Dr. Satish Kumar Sharma (Broffines abjects in the Constituen determined by the length of Satish Kumar Sharma (Broffines subjects in the Constituen determined by the length of Satish Kumar Sharma (Broffines subjects in the Constituen down the concerned dissiplines subjects in the Constituen determined by the length of Satish Kumar Sharma (Broffines subjects in the Constituen down the concerned dissiplines subjects in the Constituen down the concerned dissiplines subjects in the Constituen d	Board of St	Doard of Studies (Mathematical Sciences)	Nos	Namo & Doctorostin			
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basis of seniority to be determined by the length of service of Professor. Three Associate Professors Three Assistant Professor Three Associate Professor Three Assistant Profess	Professors	Three Professors from the concerned department of University / Constitute		Dr. D.S. Pathania	GNDEC, Ludhiana	9878634245	despathania@yahoo.com
Three Associate Professors I Dr. S. K. Srivastva from the concerned disciplines/ subjects in the University / Constituent Campus by rotation on the Assistant Professor I Dr. Rajesh Narula, Assistant Professor Campus by rotation on the basis of seniority to be determined by the length of Salah Narula, Assistant Professor Campus by rotation on the basis of seniority to be determined by the length of Salah Narula, Assistant Professor Campus by rotation on the concerned disciplines/ subjects in the University / Constitute Three Assistant Professors I Dr. Rajesh Narula, Assistant Professor Campus by rotation on the basis of seniority to be determined by the length of Sciences, IKGPTU, Kapurthala Sciences, I		Campus by rotation on the basis of seniority to be determined by the length of service of Professor.		Dr. Amritbir Singh	BBSBEC, Fatehgarh Sahib	9914241230 8872035201	Amritbir.singh@bbsbec.ac.in hod_ash@bbsbec.ac.in
from the concerned disciplines/ subjects in the University / Constituent by the length of service as Associate the Assistant Professors from the concerned disciplines/ subjects in the Professors of seniority to be determined by the length of the length o			8	Prof. Jaspal Aujla	Department of Mathematics, NIT, Jalandhar	9463364744	aujlajs@nig.ac.in
Hom the concerned disciplines/ subjects in the University / Constituent Campus by rotation on the basis of seniority to be determined by the length of from the concerned disciplines/ subjects in the University / Constitute Subjects in the University / Constitute Campus by rotation on the basis of seniority to be disciplined by the length of mathematical sciences, IKGPTU, Kapurthala S	Associate	Three Associate Professors	-	Dr. S. K. Srivastva			
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determined by the length of service as Associate 3 Dr. Satish Kumar Sharma Professor. Three Assistant Professors from the concerned disciplines/ subjects in the University / Constitute Campus by rotation on the basis of seniority to be determined by the length of a Assistant Professor Bepartment of Mathematical Sciences, IKGPTU, Kapurthala Sciences, IKGPTU, Kapurthala Sciences, IKGPTU, Kapurthala Sciences, IKGPTU, Kapurthala		basis of seniority to be	7	Dr. Mahender Singh	Department of Mathematica	0120000010	
Professor. Three Assistant Professors in the Concerned disciplines/ subjects in the Campus by rotation on the basis of seniority to be determined by the length of		determined by the length of			IISER, Mohali	01/22293135	mahender@iisermohali.ac.in
Three Assistant Professors I Dr. Rajesh Narula, Assistant Professor Concerned disciplines/ subjects in the University / Constitute Campus by rotation on the basis of seniority to be determined by the length of		i ii		Dr. Satish Kumar Sharma	Department of Mathematics,	9780493782	Satishk.sharma@thapar.edu
disciplines/ subjects in the University / Constitute Campus by rotation on the basis of seniority to be determined by the length of	Assistant	Three Assistant Professors	-	Dr. Rajesh Narula. Assistant Professor			
2 Dr. Megha Goyal, Assistant Professor Department of Mathematical Sciences, IKGPTU, Kapurthala	S I TOTESSOIS	from the concerned disciplines/ subjects in the University / Constitute		JOSSOIO I HIPPORON SALAMAN	Department of Mathematical Sciences, IKGPTU, Kapurthala	9478098073	dr.rknarula@gmail.com
Sciences, IKGPTU, Kapurthala		Campus by rotation on the basis of seniority to be		Dr. Megha Goyal, Assistant Professor	Department of Mathematical	0464062222	
		determined by the length of			Sciences, IKGPTU, Kapurthala	7766604046	meghagoyal2021@gmail.co m

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1000	Professor	3	Dr. Jatinder Singh, Assistant Professor	Department of Mathematics, GNDU. Amritsar	8146907778	sonumaths@gmail.com
Outside Expert	Two Outside Expert from other Organizations / Universities to be nominated by the Vice-	-	Prof. Vinay Kanwar	UIET, Panjab University, Chandigarh.	9878369981	vmithil@yahoo.co.in
	Chancellor in consultation with the Dean Academics or Chairman, Board of Studies.	7	Prof. Manoranjan Mishra	IIT, Ropar	9501705522	manoranjan@iitrpr.ac.in
Industry Expert / Representative	One Expert from industry and One Representative of Department of CR&A, IKGPTU not below the rank	-	CII Nominee			
	of Assistant Director to be nominated by the Vice-Chancellor in consultation with the Dean Academics or Chairman, Board of Studies.	2	Dy. Director / Assistant Director CR&A	Deptt. of CR&A, IKGPTU	9478098040	placements.ptu@gmail.com bedi.ptu@gmail.com
	One Student of concerned program from University Campus / Constitute Campus	_	One or more students form the concerned program for University Campus / Constitute Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS		ı	
	One Alumni of concerned program form University Campus / Constitute Campus / Affiliated Colleges		One or more Alumni's form the concerned program for University Campus / Constitute Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS	1	ı	
BOS	One Assistant Professor from the concerned department of the University / Constitute campus.		Dr. Vikramjit Singh, Assistant Professor	Department of Mathematical Science, Main Campus IKGPTU	9988600780	Vikram31782@gmail.com

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Dean (P&EP)
I.K. Gujral Punjab Technical University, Jalandhar
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Board of Studies of IKG Punjab Technical University Campus

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	Phone	9478098021	9417881189	8146562883	9876675779	86278 68400	9478098058	9779332722	9478098063	9478098064	9478098069
	Address	Technology, IKGPTU, Main Campus	Sciences and Drug Research, Punjabi University, Patiala	Moga	Department of Pharmacology, Punjab Institute of Medical Sciences, Jalandhar	Agrasen University,	Department of Chemical Sciences, IKGPTU, Main Campus	Department of Pharmacology, Punjab Institute of Medical Sciences, Jalandhar	Department Food Science & Technology, IKGPTU, Main Campus	Department Food Science & 9 Technology, IKGPTU, Main Campus	Department Food Science & 9. Technology, IKGPTU, Main
Nos Name & Designation	1 Dr. Rajneesh Kant Sachdev	Dr. R.K. Goel, Professor	2 Dr. G. D. Gupta, Professor	3 Dr. Shalini Salwan, Professor	Dr. Deepak Prabhakar Bhagwat, Associate		Dr. Megha Sood Access.	Br Const Gt	Dr. Shahir ci.h.,	Dr. Barinderiit Single Accessor	Transfer Assistant Professor
Board of Studies (Clinical Research)	Head of Department shall act a Chairman (Ex-officio)	Three Professors from the		service of Professor.	Three Associate Professors I from the concerned	University / Constituent 2 Campus by rotation on the	basis of seniority to be determined by the length of service as Associate 3	4	disciplines/ subjects in the University / Constitute Campus by rotation on the 2	determined by the length of service as Assistant Professor 3	1
Board of	Chairman	Professors			Associate Professors			Assistant Professors			

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Outside Expert T	Two Outside Expert from other Organizations / Universities to be nominated by the Vice-		Dr. Abhishek Kaler, Drug Safety Scientist	Parexel International India Pvt Ltd., Chandigarh	9888261197 8042963920	abhishek.kaier@gmail.com
	Chancellor in consultation with the Dean Academics or Chairman, Board of Studies.	7	Dr. Anoop Kumar, Assistant Professor	Department of Pharmacology & Toxicology, NIPER, Raebareli	8587022854	abitmesra@gmail.com
Industry Expert / / Representative	One Expert from industry and One Representative of Department of CR&A, IKGPTU not below the rank of Assistant Director	-	Dr. Deepti Rathee, Manager- Aggregate Reports, Worldwide Medical and Safety	Pfizer Healthcare India Pvt. Ltd., Chennai, Tamil Nadu	8248612011 7045003464	Deepti.Rathee@Pfizer.com
	to be nominated by the Vice-Chancellor in consultation with the Dean Academics or Chairman, Board of Studies.	2	Dy. Director / Assistant Director CR&A	Deptt. of CR&A, IKGPTU	9478098076	placements.ptu@gmail.com
	One Student of concerned program from University Campus / Constitute Campus	-	One or more students form the concerned program for University Campus / Constitute Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS	•		
	One Alumni of concerned program form University Campus / Constitute Campus / Affiliated Colleges		One or more Alumni's form the concerned program for University Campus / Constitute Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS		•	
BOS	One Assistant Professor from the concerned department of the University / Constitute		Dr. Shabir Sidhu, Assistant Professor	Department of Food Science and Engineering, Main Campus, IKGPTU	9478098064	shabirsidhu@ptu.ac.in

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Dean (P&EP)
I.K. Gujial Punjab Technical University, Jalandhar
Kapurthala

IK Gujral Punjab Technical University Jalandhar

(Jalandhar-Kapurthalla highway)

Notification

No.IKGPTU/Reg/Notification/ 203

Dated: 13-05-19

Subject:

Notification regarding Board of Studies (Affiliated Colleges) for the period of 2019-2021.

The IKG Punjab Technical University Jalandhar is pleased to constitute the Board of Studies (Affiliated Institutes) for a period of two years from the date of notification.

The Board of Studies for affiliated colleges (attached as Annexure-A) will work under the overall supervision of Dean (Academics) and Dr. Shabir Sidhu, Assistant Professor will coordinate as a nominee of Dean Academics for all Board of Studies.

The Functions of Board of Studies shall be:

- 1. The board of studies shall perform the following functions for affiliated colleges:
 - (a) To recommend the curriculum and course of Studies including the textbooks for various subjects of Undergraduate studies and Postgraduate studies to Academic Council through Dean Academics.
 - (b) To recommend the names of paper setters, internal and external examiners for undergraduate and postgraduate course.
 - (c) To frame academic regulations, wherever necessary, model papers for the guidance of paper setters.
 - (d) To recommend the list of reference books, periodicals, report etc., pertaining to the subject concerned, for the Library.
 - (e) To recommend measures for the periodical assessment and improvement of the standard of undergraduate and postgraduate studies.
 - (f) To act as a consultative body in regard to all references made to it and to bring to the notice of concerned authorities any matter connected with subjects under the purview of the Board.
 - (g) To recommend panel of editors for preparation of anthologies.

2. Syllabus mapping for migration of students and others cases from other Universities shall be carried out by concerned BOS

3. The BOS shall recommend the reports related to the question papers i.e. out of syllabus, misprinting errors etc

Dean (P&EP)

I.K. Gujral Punjab Technical University, Jalandhar

Kapurthala

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- 4. In addition to above, respective Board of studies shall suggest course scheme and measures to be taken for developing Teaching Departments as center of excellence in the affiliated college in addition to courses being offered at affiliated colleges.
- Meeting of the Board of studies shall be convened by the Chairman, BOS as and when considered necessary but not less than twice in a calendar year. Gap between two meetings should not be more than 180 days.
- The curriculum of all courses including B. Voc. (Bachelor of Vocations) program shall be designed and approved by the respective Board of Studies.
- One Third (1/3) of the total members of the BOS shall form the quorum for a meeting of the board of studies.
- In the absence of Chairman BOS, Vice-Chairman BOS shall act as Chairman to hold meetings of respective BOS.
- The curriculum of Ph.D course work also shall be designed and approved by the respective Board of Studies
- 10. Any BOS member, on account of continuous absence may be replaced by the Vice Chancellor on recommendation of Dean Academics / Chairperson BOS.
- Chairman, BOS may invite any subject expert(s) with additional specialization to the BOS meeting as and when required with the permission of Dean (Academics) IKGPTU.
- 12. Each BOS has one faculty as coordinator from IKGPTU. The coordinator will be responsible for making all the arrangements for conduct the BOS meeting and shall be responsible to put up all the issues / agenda related to BOS in meeting and will handover all the related records to the office of Dean (Academics), IKGPTU.
- To deal with any other matter referred to it by Dean Academics or Vice Chancellor form time to time.

14. TA/DA & Honorarium to the members and other invitees of the meeting shall be paid as per University norms.

> (Dr. Sukhbir Singh Walia) Registrar

Dean (P&EP)

I.K. Gujral Punjab Technical University, Jalandhar

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Board of Studies (Electrical Engineering, Electrical Nos

(197189] bruist Jecunics, Autosizud' 191914415 Board of Student of IKG Punjab Technical University (Affilial Colleges)

	Professors Professors			Associate Professors				Professors	Vice- Chairman		& Electronic Engineering Chairman
Dean (P&EP) I.K. Guiral Puniab Technical University, Jalanchar	Three Assistant Professors from the concerned disciplines/ subjects in the			Three Associate Professors from the concerned disciplines/ subjects in the University / Constituent Campus/ Affiliated colleges.			Campus / Affiliated colleges.	Three Professors from the concerned	Chairman of previous BOS	Vice-Chancellor in the concerned disciplines from department of University / Constitute Campus / Affiliated colleges/	& Electronics Engineering, Electronics & Electrical Engineering) Chairman The Chairman shall be
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Page 1 of 40	Dr. Arvind Dhingra	Dr. Sunil Kumar Singla	oogandeep Naur	Dr. Kanwardeep Singh	Dr. Gursewak Singh Brar	Dr. Sushii Chohan		Dr. Lakhwinder Singh	Dr. Y.S Brar, Professor	Dr. Jaspreet Singh Dhillon	
	Department of EE, DAVIET, Jalandhar	TIET, Patiala	Associate Professor, Deptt. of Electrical Eng., IKGPTU Main Campus	GNDEC Ludhiana	Professor, BBSBEC, Fatehgarh Sahib	Professor, NIT, Hamirpur	BBSBEC, Fatchgarh Sahib	Engineering, Main Campus IKGPTU		Professor, SLIET, Longowal	Address
A	9817127345	9463909829	9478098118	9501411533	9463411011		9814508213 8872007780	9478098013		9779828833	Phone
Mr. Out	arvinddhingra@gndec.ac.in	ssingla@thapar.edu	Gagan.pitk@gmail.com	kds@gndec.ac.in, kds97dee@gmail.com	hod_ee@bbsbec.ac.in	sushil@nith.ac.in	b_lakh@yahoo.com dean.academics@bbsbec.ac.in	braryadwinder@yahoo.co.in		3 jsdhillonp@yahoo.com	Email ID

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	Coordinator				Expert / Represent- ative				Outside	
Constitute campus.	One Assistant Professor from the concerned department of the University /	University Campus / Constitute Campus / Affiliated Colleges	One Student of concerned program from University Campus / Constitute Campus	Academics or Chairman, Board of Studies.	Representative of Department of CR&A, IKGPTU not below the rank of Assistant Director to be nominated by the Vice-			Organizations / Universities to be nominated by the Vice-Chancellor in consultation with the Dean Academics	Evrand Com	Affiliated Institutes by rotation.
	-		-	2			12		-	
	Dr. Deepika Bhalla, Assistant Professor	One or more Alumni's form the concerned program for Affiliated Collage/ University Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS	One or more students form the concerned program for Affiliated Collage/ University Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS	Dy. Director / Assistant Director CR&A	Er. R. S. Randhawa	Dr. Ajat Shatru Arora, Professor	Dr. Shakti Kumar	Dr. Dilbag Singh	Dr. Deepika Bhalla, Assistant Professor	Dr. Navneet Singh Bhangu
Campus IKGPTU	Department of Electrical Engineering Main	i		Department of CR&A, IKGPTU	SE, PSPCL, Jalandhar	SLIET Longowal	Director, PIET, Panipat, Haryana	NIT, Jalandhar	Department of Electrical Engineering Main Campus IKGPTU	GNDEC, Ludhiana
	9465884858	•	ı	9478098040 9478098076	9646106022	9463217074	8091300786	9888492132	9465884858	9872827229
	dbhalla@ptu.ac.in			placements.ptu@gmail.com bedi.ptu@gmail.com		ajatsliet@yahoo.com	shktik@gmail.com	singhd@nitj.ac.in	dbhalla@ptu.ac.in	nsbhangu@gndec.ac.in

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Dean (P&EP)

I.K. Gujral Punjab Technical University, Jalandhar Kapurthala

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Board of Studie. of IKG Punjab Technical University (Affiliates Colleges)

Professors (Associate Professors				Chairman	Chairman	Engineering, Engineering
concerned disciplines/ subjects in the			Three Associate Professors from the concerned disciplines/ subjects in the University / Constituent Campus/ Affiliated colleges.			department of University / Constitute Campus / Affiliated colleges.	Chairman of previous BOS	Vice-Chancellor in the concerned disciplines from department of University / Constitute Campus / Affiliated colleges/ Other Universities	Engineering, Electronics & Instrumentation Engineering,
-	ω	2	-	ω	ю		-		Nos
Dr. Baljeet Kaur	Dr. Narinder Sharma	Dr. Jagjit Singh	Dr. Amarpal Singh	Dr. Vinay Bhatia	Dr. Suyeb Ahmed Khan	Dr. Kajini	Dr. Avtar Singh Buttar	Dr. Manoj Kumar	Name & Designation
GNDEC Ludhiana	ACET, Amritsar	DAVIET, Jalandhar	BCET, Gurdaspur	CGC, Jhangeri	BKSJEC, Amritsar	SBS STC, Ferozepur	Head, Department of ECE, IKGPTU, Kapurthala	Principal DAVIET, Jalandhar	Address
9872544399	9915783952	9872201740	9855715741	9255385355	9888936408	8288012050	9478098053	9872203898	Phone
Baljeetkaur@gndec.ac.in	narinder.acet@gmail.com	Jmalhotra292@gmail.com	S_amarpal@yahoo.com	info@cgc.ac.in	Suyeb786@yahoo.co.in	director@sbsstc.ac.in	danshavtar@redifmail.com	Mk_daviet@rediffmail.com	Email ID

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			Expert 0			~	Expert / R Represent- II				E	Coordinator co
Affiliated Institutes by rotation.			Three Outside Expert from other Organizations / Universities to be nominated by the Vice-Chancellor in consultation with the Dean Academics			One Expert from industry and One	Representative of Department of CR&A, IKGPTU not below the rank of Assistant	Director to be nominated by the Vice-	Academics or Chairman, Board of Studies.	One Student of concerned program from University Campus / Constitute Campus	One Alumni of concerned program form University Campus / Constitute Campus / Affiliated Colleges	One Assistant Professor from the concerned department of the University /
. 2	ω			2 1	3 1		,		2	- 0 8 0	- C & 53 &	1 D
Dr. Tripatjot Singh Panag	Dr. Balwinder Singh Dhaliwal	D. Dalwinger Singh Dilainwal	Dr. Ravindra Kumar Sharma	Dr. N.S. Raghava	Dr. B.S. Saini	Er. Gurpreet Singh	on provident		Dy. Director / Assistant Director CR&A	One or more students form the concerned program for Affiliated Collage/ University Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS	One or more Alumni's form the concerned program for Affiliated Collage/ University Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS	
BBSBEC, Fatehgarh Sahib		GNDEC, Ludhiana	Professor ECE, Ambedkar Instt. of Advance Communication Technologies & Research Geota Colony, Delki	Professor Deptt. ECE, Delhi Technological	NIT Islandbar	DATE OF THE PARTY	Ltd. #68, 15th Cross, 1st	Banglore-560032	Department of CR&A, IKGPTU		1	Department of ECE Main Campus IKGPTU
9855764499			9811455921	9711724842	OPPO CONTRACT		9880170673		9478098040 9478098076	,	ı	9478098066
Tripatjot.singh@bbsbec.ac.in		ssg@gndec.ac.in	21_ravindra@gmail.com	nsraghava@dce.ac.in			singh@edgate.in		placements.ptu@gmail.com bedi.ptu@gmail.com			dn_dogra@rediffmail.com

Dean (P&EP)

I.K. Gujral Purjub Technical University, Jalanc'

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Board of Studies (XG Punjab Technical University (Affiliated (cges)

S	Assistant Th			Associate Th Professors co Un Af			de Cu		Dan	Production Engineer Tool Engineering, Au Aerospace and Aeros Marine Engineering)
concerned disciplines/subjects in the	Three Assistant Professors from the			Three Associate Professors from the concerned disciplines/ subjects in the University / Constituent Campus/ Affiliated colleges.			department of University / Constitute Campus / Affiliated colleges.	Chairman of previous BOS	The Chairman shall be nominated by Vice-Chancellor in the concerned disciplines from department of University / Constitute Campus / Affiliated colleges/ Other Universities	Production Engineering, Industrial Engineering, Tool Engineering, Automobile Engineering, Aerospace and Aeronautical Engineering, Marine Engineering)
		w	2	-	3	2	_	-	-	Nos
Distribution of the contract o	Dr. Kaller Grant	Dr. Neerai Rala	Dr. Balkar Singh	Dr. Jagdev Singh	Dr. R.P.S. Sukerchakia	Dr. Lakhvir Singh	Dr. Paramjit Singh Bilga	Dr. Vikas Chawla, Professor	Dr. Om Pal Singh	Name & Designation
IKGPTU Main Campus	Sahib Fatehgarh	Property of	Director Academics, IKGPTU	BCET, Gurdaspur	Principal (Rt) GNDEC, Ludhiana	Professor, BBSBEC, Fatehgarh Sahib	GNDEC, Ludhiana	IKGPTU Campus Hoshiarpur	BCET Gurdaspur	Address
9988406063	9814744303		9478098009	88727-33343	9888178881	98147744303	9815906659	9417953530	9855472079	Phone
Joojharsingh2085@gmail.com	hod_me@bbsbec.ac.in		ptubalkar@gmail.com	principalbcetgurdaspur@yahoo.com	sukerchakia@yahoo.com	98147744303 hod_me@bbsbec.ac.in	psbilga@gndec.ac.in	vikas.chawla.ikgptu2gmail.com	ompal.me@bcetgsp.ac.in	Email ID

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I.K. Gujral Punjab Technical University Japanar
Kapurthala

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	BOS Coordinator	Alumnu	Student		Expert / Represent- ative			Outside Expert		
/ Constitute campus.	One Assistant Professor from the concerned department of the	One Alumni of concerned program form University Campus / Constitute Campus / Affiliated Colleges	One Student of concerned program from University Campus / Constitute Campus	consultation with the Dean Academics or Chairman, Board of Studies.	presentative of Department &A, IKGPTU not below the ra		Academics	Three Outside Expert from other Organizations / Universities to be nominated by the Vice-Chancellor in consultation with the Dean		Affiliated Institutes by rotation.
	-			2		. ω	2		ယ	2
	Dr. Amit Bansal, Assistant Professor	One or more Alumni's form the concerned program for Affiliated Collage/ University Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS	One or more students form the concerned program for Affiliated Collage/ University Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS	Dy. Director / Assistant Director CR&A	Sarbjit Singh, General Manager	Dr. Vijay Kumar Jadon	Dr. Suresh Kumar Verma	Dr. Subhash Chander	Dr. Davinder Priyadarshi	Dr. Rachin Goyal
Main Campus IKGPTU	Department of			Department of CR&A, IKGPTU	GM-Manufacturing Honda Motorcycle and Scooter India Pvt. Ltd, IMT Manesar	Chitkara University, Rajpura	DCRUST Murthal (Sonipat) Haryana	NIT Jalandhar	DAVIET, Jalandhar	CGC, Jhanjeri
	8289000931	1	r	9478098040 9478098076	8826330006	9872993230	9416540458	9417864015	9872067770	9914150788
	dr.amitbansal@ptu.ac.in			placements.ptu@gmail.com bedi.ptu@gmail.com	Sarbjit.singh@honda2wheelersindia.com	Chitkarauniversitypublications (@chitkara.edu.in	suresh30@yahoo.co.in	chanders@nitj.ac.in ,	priyadarshidevinder@gmail.com	info@cgc.ac.in

Dean (P&EP)

< Gujral Punjab Technical University, Jalandhar

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Board of Stude of IKG Punjab Technical University (Affiliate Colleges)

		Professors	Assistant		Professors	•		Professors	Chairman	Cidillian	Engineerin
1		concerned disciplines/ subjects in the University / Constitute Campus/ Affiliated Institutes by rotation.	Three Assistant Professors from the		concerned disciplines/ subjects in the University / Constituent Campus/ Affiliated colleges.			Three Professors from the concerned department of University / Constitute Campus / Affiliated colleges.	Chairman of previous BOS	Vice-Chancellor in the concerned disciplines from department of University / Constitute Campus / Affiliated colleges/ Other Universities	Engineering, Information and Technology)
	ω	ν,	- 3	2		မ	2	-			Nos
g. Scott alia	Dr. Alok Kumar Sinoh Kushwaha	Dr. Sumesh Sond	Dr. S.K. Gupta	Dr. Harpreet Kaur Bajaj	Dr. Manju Raj Modgill	Dr. Lakhwinder Kaur	Dr. Raman Chadha	Dr. Manju Bala	Dr. Monika Sachdeva, HOD CSE	Dr. Parminder Singh	-
INGPIO Main Campus	Dinanagar	Department of CSE, TIET, Patiala	BCET, Gurdaspur	DAVIET, Jalandhar	Chandigarh Group of Colleges, Jhanjeri (Mohali)	Professor, Punjabi University, Patiala	Chandigarh Group of Colleges, Jhanjeri (Mohali)	Khalsa College of Engineering & Technology, Amritsar	Department of CSE, main campus IKGPTU	GNDEC, Ludhiana	Address
8090631394		用型	9646020532	9815577366	9888451772	9872071703	8872048016	9878402703	9465884822	9855576176	Phone
dr.alokkushwaha@ptu.ac.in	sumesh64@gmail.com	Vinay.arora@thapar.edu	principalbcetgurdaspur@yahoo.com	Preetbajan2003@gmail.com	Manu.moudgil@gmail.com	mahal2k8@gmail.com mahal2k8@yahoo.com	hodesejhanjeri@cgc.ac.in	Drmanju571@gmail.com	Monasach1975@gmail.com	parminder2u@gmail.com	Email ID

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Board of Str) bs of IKG Punjab Technical University (Affili. Ad Colleges)

/ Constitute campus.		form Camp	Alumni One Alumni	Campus	Student One Student			₩.	,	Industry One Every		nominated t
concerned department of the University / Constitute campus.	One Assistant Professor from the	form University Campus / Constitute Campus / Affiliated Colleges	Alumni of concerned program	Campus / Constitute	One Student of concerned program	with the Dean Academics or Chairman, Board of Studies,	the Vice-Chancellor in command by	CR&A, IKGPTU not below the rank of	Representation industry and One			nominated by the Vice-Chancellor in consultation with the Dean Academics
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Assistant Professor		program for Affiliated Collage/ University Campus shall be called by the Coordinator in consulting with Chairman in the meeting of	BOS	program for Affiliated Collage/ University Campus shall be called by the Coordinator in consulting with Chairman in the meeting of	One or more students from the		Dy. Director / Assistant Director CR&A	o annual culton	Dr. Harpreet Singh Bawa Placement Officer	Dr. 1.P. Sharma	an and Adil	Dr. Swots Post
Department of CSE Main Campus IKGPTU						IKGPTU		LEL, Patiala		NIT Hamirpur	GZS Campus College of Engg. & Tech., Bathinda	Jalandhar
9465884833		ı		I.		9478098040 9478098076		9417255252		01972254426	9888585202	9888582299
dr.anshubhasin@ptu.ac.in						placements.ptu@gmail.com bedi.ptu@gmail.com	bawa_hs@yahoo.co.in	hsbawa@thapar.edu bawa68.hs@gmail.com	teek@nith.ac.in		garg_shavy@yahoo.com	sikkag@nitj.ac.in

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Dean (P&EP)

I.K. Gujral Punjab Technical University, Jalandhar

Kapurthala

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Board of Studies . KG Punjab Technical University (Affiliated ()eges)

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Board of Studies and Engineering)	Chairman	Vice- Chairman	Professors			Associate Professors			Assistant Professors
Board of Studies (Physica Sciences, Nano Science and Engineering)	The Chairman shall be nominated by Vice-Chancellor in the concerned disciplines from department of University / Constitute Campus / Affiliated colleges/ Other Universities	Chairman of previous BOS	Three Professors from the concerned department of University / Constitute Campus / Affiliated colleges.			Three Associate Professors from the concerned disciplines/ subjects in the University / Constituent Campus/ Affiliated colleges.			Three Assistant Professors from the concerned disciplines/ subjects in the University / Constitute Campus/ Affiliated Institutes by rotation:
Nos				ю	ω		2	ω	
Name & Designation	Dr. Rakesh Dogra	Dr. Amit Sarin, HOD Physical Sciences	Dr. A.K. Tyagi	Dr. Arvind Sharma	Dr. Ajay Kumar Sharma	Dr. Kanchan L Singh	Dr. Munish Aggarwal	Dr. Arvind Kumar	Dr. Harleen Kaur
Address	BCET Gurdaspur	Department of Physical Sciences, main campus IKGPTU	SBS STC, Ferozepur	CGC, Jhanjeri	SBS STC, Ferozepur	DAVIET, Jalandhar	Lyallpur Khalsa College of Engineering & Tech. Jalandhar	BCET, Gurdaspur	BBSBEC, Fatehgarh Sahib
Phone	9872150166	9872998760	9463000886	9316154500	9463000886	9914001756	8360502617	9872150166	9463167212
Email ID	drdogra@yahoo.com	amit.sarin@yahoo.com	anandktyagi@gmail.com	info@cgcac.in	anandktyagi@gmail.com	kanchan_69@rediffmail.com	Sonuphy333@gmail.com	drdogra@yahoo.com	Harleen.kaur@bbsbec.ac.in

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Dean (P&EP)
I.K. Gujral Punjab Technical University, Jelandhar
Kapurthala

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Manager (Committee Depart (Selection)

Board of Studies , KG Punjab Technical University (Affiliated () leges)

		The state of the s			
manisaini153@gmail.com	9465884828 n	Department of Physical Sciences Main Campus	JOSSISHAIL LIGIESSOF		Coordinator
		1	University dinator in g of BOS	/ Affiliated Colleges One Assistant Professor from the	
3.	1		for Affiliated Collage/ University Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS One or more Alumni's form the concernd.	One Alumni of concerned program form 1	Alumni
placements.ptu@gmail.com bedi.ptu@gmail.com	9478098040 9478098076	Department of CR&A, IKGPTU	One or more students form the concerned program	7 7.2	Student
		To be nominated by CII	CII Nominee	One Expert from industry and One Representative of Department of CR&A, IKGPTU not below the rank of Assistant Director to be nominated by the Vice- 2	Expert / Represent- ative
mehrar@nitj.ac.in	9888534590	NIT Jalandhar	Dr. Rohit Mehra	3	
kks@nith.ac.in	254119	NIT Hamirpur	Dr. Kuldeep Kumar Sharma	2	
arvinders@nitj.ac.in	9988803134	NIT Jalandhar	Dr. Arvinder Singh	Three Outside Expert from other Organizations / Universities to be nominated by the Vice-Chancellor in consultation with the Dean Academics	Outside Expert
drdogra@yahoo.com	9872150166	BECT, Gurdaspur			
Ripin.kohli@gmail.com	8146585472	& Technology, Amritsar	3 Dr. Rajiv Malhotra		

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Dean (Pacp)
I.K. Gujral Purjab Technical University, Jalandhas Kapurthala

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Board of Studies . KG Punjab Technical University (Affiliated i eges)

	Assistant Professors			Associate Professors			rrolessors	Vice- Chairman	Chairman	Board of S
\ \	Three Assistant Professors from the concerned disciplines subjects in the		outer congress.	Three Associate Professors from the concerned disciplines/ subjects in the University / Constituent Campus/			Inree Professors from the concerned department of University / Constitute Campus / Affiliated colleges.	Chairman of previous BOS	The Chairman shall be nominated by Vice-Chancellor in the concerned disciplines from department of University / Constitute Campus / Affiliated colleges/ Other Universities	Board of Studies (Chemical Sciences)
A Line September 54	-	ω	2		w	ы	-	E		Nos
	Dr. Reshu Talwar	Dr. Anju Awashti	Dr. Ashwani Kumar	Dr. Lalit Sharma	Dr. J.S. Kanwar	Dr. Varinder Singh	Dr. A.P. Singh	Dr. Gaurav Bhargava, HOD Chemical Sciences	Dr. B. S. Kainth	Name & Designation
	Department of Chemical Sciences, IKGPTU Main Campus	BCET, Gurdaspur	CGC, Jhanjeri	SBS STC, Ferozepur	Director, IET Bhadhal Campus Ropar	BBSBEC Fatehgarh Sahib	Dean R&D, IKGPTU Jalandhar	Department of Chemical Sciences main campus IKGPTU	NIT Jalandhar	Address
	9463725685	01874 - 221463	8872048011	9872069500	7837336450	8872016450	01822- 282558	9478098058	9780684883	Phone
	reshusanan@gmail.com	principalbcetgurdaspur@yahoo.com	academics@cgc.ac.in	Lalitlalit64@rediffmail.com	directorsoet@ietbhaddal.edu.in deanietbhaddal@gmail.com	Virinder.singh@bbsbec.ac.in	deanric@ptu.ac.in	gauravorganic@gmail.com	kaithbs@nitj.ac.in	Email ID

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Dean (P&ER)
I.K. Gujral Punjab Technical University, Jalandhar
Kapurthala

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Board of Studies of IKG Punjab Technical University (Affiliated Colleges)

Affiliated Institutes by rotation. Affiliated Institutes by rotation. Affiliated Institutes by rotation. Dr. Rupech Kamar Manak RGFTU Main Campus Polyagination Davier Allamini Davier Allamini Davier Character of Constitute Campus Allamini Con Expert from industry and One Expert from industry and One Representatives Polyaginated by the Vice-Chancelor in consultation Dr. Bas. Kanage Dr. Dr. Drivestor Assistant Director CR&A Assistant Director to be nominated by the Vice-Chancelor in consultation Dr. Student of concerned program From University Campus / Constitute Campus Dr. One Campus And Thilated Colleges Dr. Drivestor Assistant Director CR&A Dr. Drivestor Assistant Director CR&A Dr. Drivestor Assistant Director CR&A Dr. Drivestor Constitute Dr. Compus from the concerned program Dr. Drivestor Constitute Campus Affiliated Colleges Dr. Drivestory Dr. One or more students form the concerned program in the meeting of Compus that the concerned program in the concerned pro				Book 40 - 600		~	
Affiliated Institutes by rotation. 2 Dr. Bhupinder Singh DAVIET Islandhar 8968339395 3 Dr. Rupesh Kumar Manak IKGPTU Main Campus 9914231989 1 Dr. Jaspreet K. Rajput Organizations / Universities to be consultation with the Dean Academics 2 Dr. Pamita Awasthi Dr. Jaspreet K. Rajput One Expert from industry and One consultation with the Dean Academics 2 Dr. Pamita Awasthi Dr. B.S. Kanugo 3 Dr. B.S. Kanugo 4 Constitute Campus Affiliated Conterned program on the concerned program of Affiliated Collage/ University Campus / Constitute Campus / Affiliated Colleges Consulting with Chairman in the meeting of consultation with the Dean Academics or Creampus for Affiliated Collage/ University Campus / Constitute Campus / Affiliated Colleges Consulting with Chairman in the meeting of Contended program of Affiliated Collage/ University Campus / Constitute Campus / Affiliated Colleges Consulting with Chairman in the meeting of Contended program of Affiliated Collage/ University Campus / Affiliated Collage/ University Campus / Constitute Campus / Affiliated Collage/ University Campus / Campus shall be called by the Coordinator in Consultation of Campus shall be called by the Coordinator in Consultation of Campus shall be called by the Coordinator in Consultation of Campus shall be called by the Coordinator in Consultation of Campus shall be called by the Coordinator in Consultation of Campus shall be called by the Coordinator in Campus for Affiliated Collage/ University Campus Shall be called by the Coordinator in	oopa_noel@yahoo.co.in		nt of Chemical Main				Coor
Affiliated Institutes by rotation. Affiliated Institutes by rotation. 2 Dr. Bhupinder Singh DAVIET Jalandhar 8968339395		ı		One or more Alumni's form the concerned program for Affiliated Collage/ University Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS			BOS
Affiliated Institutes by rotation. 2 Dr. Bhupinder Singh DAVIET Jalandhar 8968339395 Provided Institutes by rotation. 3 Dr. Rupesh Kumar Manak Conside Expert from other Organizations / Universities to be nominated by the Vice-Chancellor in consultation with the Dean Academics 2 Dr. Pamita Awasthi DAVIET Jalandhar 8968339395 IKGPTU Main Campus 9914231989 NIT Jalandhar 9464620971 One Expert from industry and One Representative of Department of CR&A, IKGPTU not below the rank of Assistant Director to be nominated by the Vice-Chancellor in consultation with the Dean Academics or Chairman, With the Dean Academics or Chairman, Change of Studies. Dr. Bhupinder Singh DAVIET Jalandhar 9914231989 NIT Jalandhar 9464620971 One Expert from industry and One CII One Expert from industry and One CR&A, IKGPTU 9418154100 One Expert from industry and One CII One CR&A, IKGPTU 9418154100 One Expert from industry and One CII One CR&A, Parameter of CR&A, P		1		One or more students form the concerned program for Affiliated Collage/ University Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS	iversity Campus / Constitute		All
Affiliated Institutes by rotation. 2 Dr. Bhupinder Singh Affiliated Institutes by rotation. 3 Dr. Rupesh Kumar Manak Three Outside Expert from other consultations / Universities to be nominated by the Vice-Chancellor in consultation with the Dean Academics 2 Dr. Pamita Awasthi DAVIET Jalandhar 8968339395 Br. Rupesh Kumar Manak IKGPTU Main Campus 9914231989 IKGPTU Main Campus 9914231989 NIT Jalandhar 9464620971 One Expert from industry and One CR&A, IKGPTU not below the rank of CRA&A, IKGPTU not below the r	placements.ptu@gmail.com bedi.ptu@gmail.com		Department of CR&A, IKGPTU				S
Affiliated Institutes by rotation. Dr. Rupesh Kumar Manak Three Outside Expert from other Organizations / Universities to be nominated by the Vice-Chancellor in consultation with the Dean Academics Dr. Pamita Awasthi Dr. Jaspreet K. Rajput Organizations / Universities to be nominated by the Vice-Chancellor in consultation with the Dean Academics Dr. Pamita Awasthi Dr. Jaspreet K. Rajput NIT Jalandhar 9464620971 NIT Harnipur 9418154100 SLIET, Longowal 01672-			To be nominated by CII			esent-	a Registra
Affiliated Institutes by rotation. 2 Dr. Bhupinder Singh DAVIET Jalandhar 8968339395 3 Dr. Rupesh Kumar Manak Three Outside Expert from other Organizations / Universities to be nominated by the Vice-Chancellor in consultation with the Dean Academics 2 Dr. Pamita Awasthi DAVIET Jalandhar 9914231989 IKGPTU Main Campus 9914231989 NIT Jalandhar 9464620971	hk67@rediffmail.com; harishchopra@sliet.ac.in		SLIET, Longowal				
Affiliated Institutes by rotation. 2 Dr. Bhupinder Singh DAVIET Jalandhar 8968339395 3 Dr. Rupesh Kumar Manak Three Outside Expert from other Organizations / Universities to be nominated by the Vice-Chancellor in consultation with the Dean Academics 1 Dr. Jaspreet K. Rajput NIT Jalandhar 9464620971	pamita@nith.ac.in		NIT Hamirpur				
1 Constitute Campus/ 2 Dr. Bhupinder Singh DAVIET Jalandhar 8968339395 stitutes by rotation. 3 Dr. Rupesh Kumar Manak IKGPTU Main Campus 9914231989	rajputj@nitj.ac.in		NIT Jalandhar				E 0
1 Constitute Campus/ 2 Dr. Bhupinder Singh DAVIET Jalandhar 8968339395	Rupesh.manak@gmail.com		IKGPTU Main Campus				Harali
	Bhupichem27@gmail.com		DAVIET Jalandhar		/ Constitute Campus/ astitutes by rotation.	Affilia	

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Board of Studies KG Punjab Technical University (Affiliated () leges)

	Chairman	Vice- Chairman	Professors			Associate	Professors			Assistant Professors
	The Chairman shall be nominated by Vice-Chancellor in the concerned disciplines from department of University / Constitute Campus / Affiliated colleges/ Other Universities	Chairman of previous BOS	Three Professors from the concerned department of University / Constitute Campus / Affiliated colleges.			The American Defeated	disciplines/ subject	Affiliated colleges. Campus/		Three Assistant Professors from the concerned disciplines/ subjects in the
NOS	_	-		2	ω		-	2	زنا	
Name & Designation	Dr. Rajesh Bagga	Dr. Harmeen Soach	Dr. Jaskiran Kaur	Dr. APS Sethi	Dr. Harpreet Singh		Dr. Maninder Singh Gill	Dr. Manish Bansal	Dr. Ramandeep Singh Deol	Dr. Sanjiv Bansal
Address	APJIMT, Jalandhar	IKGPTU main Campus	CGC Jhanjeri	BBSBEC Fatehgarh Sahib	GGNIMT, Ludhiana		ACET, Amritsar	MIMIT Malout	KCL Instt. of Mgt. & Technology Jalandhar	Main Campus IKGPTU
Phone	9876611268	9815041729 9478098051	8872048017	9855043335	8288099962		9888086095	9356937037	9876254045	9478098072
Email ID	rajesh.bagga@rediffmail.com	harmeensoch@yahoo.com	principalmgmt@cgc.ac.in	sethiaps@gmail.com dean_sa@bbsbec.ac.in	harpreetsinghmahal@gmail.com	ggnimt1997@gmail.com	Maninder_gill@yahoo.com	bansal_minit@yahoo.com		Sanjeevbl@webdunia.com; commerce.ptu@gmail.com

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I.K. Gujral Punjab Technical University, Jalandhar

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டி 3D A பிறியின் நொல்கு பிறியில் 'வுள்ளும்' Board of Studies | IKG Punjab Technical University (Affiliated -) leges)

	Jean K. Guji	Coordinator	BOS	Alumni	Student	Represent-	Industry		Expert	Outside	
	Dean (P&EP) K. Gujral Punjab Technical University, Jalandh. Kapurthala	concerned department of the University Constitute campus.	University Campus / Constitute Campus / Affiliated Colleges One Assistant Professor from the	University Campus / Constitute Campus One Alumni of concerned program form	the Vice-Chancellor in consultation with the Dean Academics or Chairman, Board of Studies.	Representative of Department of CR&A, IKGPTU not below the rank of Assistant Director to be nominated by	One Expert from industry and One		Organizations / Universities to be nominated by the Vice-Chancellor in consultation with the Dean Academics		Affiliated Institutes by rotation.
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	Page 14 of 40	DI. FOOJA MENTA	program for Affiliated Collage/ University Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS	1	Sonpreet Kaur, HOD Placement & Training	CT MOUNTING	CHANGE CH	Dr. B.S. Mann Dr. Mahash Gara	Dr. Bikramjit Singh Hundal	DI. Mandeep Kaur	Dr. Kapil Gupta
0		IKGPTU Main Campus	1		RIET Phagwara	To be nominated by CII	Prof. Haryana Business School, GJ University of Science & Tech. Hisar	GNDU Amritsar	GNDU Amritsar	IKGPTU Main Campus	IKGPTU Main Campus
		9478098057	1		9988596082		09896085434	9855299135	9872220765	9478098056	9478098074
	A DE	pooja24k@yahoo.com	•		jobs@riet.ac.in	14 (14 (14 (14 (14 (14 (14 (14 (14 (14 (mc_garg@yahoo.com	bikrammann@hotmail.com	bikramhundal@rediffmail.com	mandeeparoral.ptul@gmail.com	kapilfutures@gmail.com

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Board of Studies of IKG Punjab Technical University (Affiliand Colleges)

Professors	Assistant		Professors	Associate			Chairman Professors	Vice-	Science and Chairman
concerned disciplines/ subjects in the University / Constitute Campus/ Affiliated Institutes by rotation.	Three Assistant Decomo C.		concerned disciplines/ subjects in the University / Constituent Campus/ Affiliated colleges.			department of University / Constitute Campus / Affiliated colleges.	Three Professors from the concerned	Vice-Chancellor in the concerned disciplines from department of University / Constitute Campus / Affiliated colleges/ Other Universities Chairman of previous BOS	Science and Engineering) Chairman The Chairman shall be provided to
-		2	-	,	ا اد	0		-	Nos
Dr. Sanjay Goyal	Dr. Sanjeev Naval	Dr. Anshu Tomar	Dr. Rishav Garg	Di. Dai villoer Singn	D. Harriston and A. C.	Dr. H. C. Bai	Dr. K.S. Gill	Dr. Siby Johan	-
DAVIET, Jalandhar	DAVIET, Jalandhar	BBSBEC, Fatehgarh Sahib	CGC, Jhanjeri	GNDEC Ludhiana	GNDEC Ludhiana	GNDEC Ludhiana	Department of Civil Engineering Main campus IKGPTU	PEC University, Chandigarh	Address
9814234524	9914014848	7986879107	7589129099	991480096	9855225007	9872661111	9416496964	9463495575	Phone
Goelsanjay100@yahoo.com	Sanjeevnaval2005@yahoo.com	hod_civil@bbsbec.ac.in	hodeiviljhanjeri@ege.ac.in	hs@gndec.ac.in	hsrai@gndec.ac.in	kulbirgillkulbir@yahoo.co.in	Rajiv.meet@gmail.com	johnsiby1@gmail.com	Email ID

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Dean (P&EP)
I.K. Gujral Punjab Technical University, Jalandhar
Kapurthala

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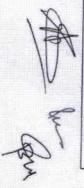
K abundhala

Board of Studies KG Punjab Technical University (Affiliated leges)

waliarinks@rediffmail.com	9914868125	Department of Civil Engg, IKGPTU Hoshiarour Campus	DE KINKU WAHA	- CO	Coordinator c
•	1		one or more Alumni's form the concerned program for Affiliated Collage/ University Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS	ersity Campus / Constitute Car iliated Colleges Assistant Professor from	
			One or more students form the concerned program for Affiliated Collage/ University Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS	University Campus / Constitute Campus One Alumni of concerned program for	Alumni
placements.ptu@gmail.com bedi.ptu@gmail.com	9478098040 9478098076	Department of CR&A, IKGPTU	Dy. Director / Assistant Director CR&A	Academics or Chairman, Board of Studies.	
*	01822- 232373	Executive Engineer, Construction Division No. 1, PWD, Kapurthala	on No. 1,		* ~
Push_kar5@yahoo.com	9815126102	Dean Consultancy and Industry Linkage, MRS PTU, Bathinda	Dr. Manjeet Bansal, Professor & HOD Civil Engg.	By Event Gara 1 July 3	Industry
chorehs@nitj.ac.in		NIT Jalandhar	Dr. H.S. Chore	2	
singhap@nij.ac.in	9814512435	NIT Jalandhar	Dr. AP Singh	Three Outside Expert from other 1 Organizations / Universities to be nominated by the Vice-Chancellor in consultation with the Dean Academics	Outside Expert
kulbirgillkulbir@yahoo.co.in	9872661111	GNDEC, Ludhiana	Dr. Puneet Pal Singh Cheema	· ·	
hodciviljhanjeri@cgc.ac.in	7589129099	CGC, Jhanjeri			

Dean (P&EP)
LK. Gujral Punjab Technical University, Jalandha
Kapurthala

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soard of Si	Board of Studies (Mathematical Sciences)	Nos	Name & Designation	Address	Phone	Email ID
Chairman	The Chairman shall be nominated by Vice-Chancellor in the concerned disciplines from department of University / Constitute Campus / Affiliated colleges/ Other Universities		Dr. D.S. Pathania	GNDEC, Ludhiana	9878634245	despathania@yahoo.com
Vice- Chairman Professions	Chairman of previous BOS	-	Dr. Ashish Arora, HOD	Department of Mathematical Science, main camping IKGPTT1	9478098067	dr.ashish10@hotmail.com
Colessons	department of University / Constitute Campus / Affiliated colleges.		Dr. Amritbir Singh	BBSBEC, Fatehgarh Sahib	9914241230 8872035201	Amritbir.singh@bbsbec.ac.in hod_ash@bbsbec.ac.in
		7	Dr. Pooja Mahajan	GIEMT, Amritsar	9915757936	directorgim@globalinstitutes.org
		8	Dr. Kiran Utrega	CGC Jhanjeri	9466017007	hodappscjhanjeri@cgc.ac.in
Associate	Three Associate Professors from the					
Professors	concerned disciplines/ subjects in the University / Constituent Campus/ Affiliated colleges.		of Kulonusnan Agnihotri	SBS STC, Ferozepur	8288012050	agnihotri69@gmail.com
		7	Dr. Harkarn Singh	KCET, Amritsar	9988485837	Harkaran78@yhaoo.in
		60	Dr. Sanjeev Kumar Srivastva	BCET, Gurdaspur	9855968325	srivastava.as@bcetgsp.ac.in
Assistant Professors	Three Assistant Professors from the concerned disciplines/ subjects in the University / Constitute Campus/		Dr. Manish Gogna	BBSBEC Fatchgarh Sahib	9914400660	Manish.gogna@bbsbec.ac.in
	Affiliated Institutes by rotation.	2	Dr. Harpreet Kaur, Assistant Professor	IKGPTU main Campus	9465884040	Maanh57@gmail.com

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Dean (P&EP)
I.K. Gujral Punjab Technical University, Jalandhar
Kapurthala

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Board of Studies of G Punjab Technical University (Affiliated Ct ges)

	Expert Organizations / Universities to be nominated by the Vice-Chancellor in consultation with the Dean Academics			stry / rt /	₽_`	ent-	
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ω —		2	ω	-	2 I		
Dr. Gurjinder Singh	Dr. Om Parkash	Dr. Satish Kumar, Associate Professor & HOD	Dr. S.S.Bhatia	CII Nominee	CII Nominee Dy. Director / Assistant Director CR&A	CII Nominee Dy. Director / Assistant Director CR&A One or more students form the concerned program for Affiliated Collage/ University Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS	ctor / Assistant Director CRA more students form the for Affiliated Collage/ shall be called by the Coug with Chairman in the meet more Allumni's form the for Affiliated Collage/ shall be called by the Coughliance Collage/ shall be called by the Coughliance Coulomb Coughliance Collage/
IKGPTU, Kapurthala	GNDU, Amritsar	TIET, Patiala	TIET, Patiala	To be nominated by CII	To be nominated by CII Department of CR&A, IKGPTU	₽U .	FD ,
9815658551	9814856017	9780493782	9646042866		9478098040 9478098076	9478098040 9478098076	9478098040 9478098076
Gurjinder l l@gmail.com	omparkash777@yahoo.co.in	ssbhatia@thapar.edu	ssbhatia@thapar.edu		placements.ptu@gmail.com bedi.ptu@gmail.com	placements.ptu@gmail.com bedi.ptu@gmail.com	placements ptu@gmail.com bedi.ptu@gmail.com

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I.K. Gujral Punjab Technical University, Jalandha
Kapurthala

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Board of Studies of G Punjab Technical University (Affiliated Ct) ges)

			Professors			Professors	Associate		Floressors	Chairman	Chairman	2
1	V		Inree Assistant Professors from the concerned disciplines/ subjects in the University / Constitute Campus/ Affiliated Institutes by rotation		Chimared colleges.	concerned disciplines/ subjects in the University / Constituent Campus/	Three Associate Professors from the		Three Professors from the concerned department of University / Constitute Campus / Affiliated colleges.	Chairman of previous BOS	The Chairman shall be nominated by Vice-Chancellor in the concerned disciplines from department of University / Constitute Campus / Affiliated colleges/ Other Universities	Chairman The Chairman Sciences and Engineering)
L	Ų.			မ	12			3 6			_	Nos
	Er. Usman Ahmed	or, supriya Babbar,	Dr. Barinderjit Singh,	Dr. Amritpal Kaur	Dr. Manbir Singh	Dr. Bindu, Associate Professor	D. P. A. Mailua	Dr. Kamlesh Prasad	Dr. Tanuja Srivastva	Dr. Rajneesh Kant Sachdeva, HOD	Dr. Balmeet S	-
	BGIET. Sangrur	Department of Management Main Campus IKGPTU	Department of Food Science and Engineering Main Campus IKGPTU	Department of Food Science & Technology, GNDU, Amritsar	Department of Food Science & Technology, Khalsa College, Amritsar	Krishi Vigyan Kendra Kapurthala.	Department of Food Engineering & Technology, SLIET	Department of Food Engineering & Technology, SLIET	Director, BGIET Sangrur	Department of Food Engineering, main campus IKGPTU	Department of Food Science & Technology GNDU, Amritsar	Address
	95257085528	9478098055	9478098069	9465491049	9815195222	9814245666	9815980054	9417741225	9814847492		Phone 9417942136	Dhama
monation with the manual com	war salandian di	Supriyabehl1@gmail.com	ap.ft@ptu.ac.in	9465491049 amritf133@yahoo.co.in	manb_s@yahoo.com	kvk.kapurthala@pau.edu	9815980054 vik164@yahoo.co.in	dr_k_prasad@rediffmail.com	tanusriva@yahoo.co.in	9478098021 pturajneesh@yahoo.com	Email ID balmeet.food@gndu.ac.in	3

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I.K. Gujral Punjab Technical University, Jalandhar
Kapurthala

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Board of Studies of G Punjab Technical University (Affiliated Co. ges)

Expert			Industry Expert / Represent-	ative	Student	Aiumni	Coordinator
Organizations / Universities to be nominated by the Vice-Chancellor in consultation with the Dean Academics			One Expert from industry and One Representative of Department of CR&A, IKGPTU not below the rank of Assistant	Director to be nominated by the Vice- Chancellor in consultation with the Dean Academics or Chairman, Board of Studies.	One Student of concerned program from University Campus / Constitute Campus	One Alumni of concerned program form University Campus / Constitute Campus / Affiliated Colleges	One Assistant Professor from the concerned department of the University / Constitute campus.
	8	w		2	-	-	-
or, mulpinder singn	Dr. Ankur Ojha	Dr. Deep Narayan Yadav	CII Nominee	Dy. Director / Assistant Director CR&A	One or more students form the concerned program for Affiliated Collage/ University Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS	One or more Alumni's form the concerned program for Affiliated Collage/ University Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS	Dr. Barinderjit Singh, Assistant Professor
Department of food technology, Chaudhary Devi Lal State Institute Of engineering And technology, Panniwala Mota, Sirsa, Haryana	Department of Food Science & Technology, National Institute of Food Technology Entrepreneurship and Management, Kundli, Sonepat, Haryana	ICAR- CIPHET, ICAR, Ludhiana, Punjab	To be nominated by CII	Department of CR&A, IKGPTU	•	•	Department of Food Science and Engineering
7009361127	8238430214	9877390942		9478098040 9478098076	r	•	9478098069
7009361127 bhupimander@rediffmail.com	aojha.niftem@gmail.com			placements.ptu@gmail.com bedi.ptu@gmail.com			ap.ft@ptu.ac.in

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Board of Studies of G Punjab Technical University (Affiliated Cc ges)

pkaurdap@gmail.com inchargemohali.ptu@gmail.com 9872253455 Duasandeep18@rediffmail.com 7837336414 | director@ietbhaddal.edu.in 9815914752 architecturegca@gmail.com pitkhunnimajra@gmail.com ar.sumit.kaur@gmail.com shrutikapoor@gmail.com asingharch@gmail.com anwarfiroz@gmail.com Email ID 9888612612 7087059276 9478098050 9855091232 9773571012 9868856130 Phone 9478098123 Department of Arch.
IKGPTU Mohali Campus
-II Jamia Milla Islami, New Delhi Professor SBS STC, Department of Arch Deptt. of Arch., IET Bhaddal Address IKGPTU Mohali Professor, GNDU CT Instt. of Arch. IGCA, Abhipur IGCA Abhipur Ferozepur Campus-II Amritsar Jalandhar Ar Mohd. Firoz Anwar, Associate Professor Dr. Gurkirpal Singh, Assistant Professor Name & Designation Dr. Prabhjot Kaur, Professor Ar. Bipin Malik, HOD Ar. Shruti H Kapoor Ar. Avinash Singh Ar. Ruchi Lakhani Dr. Sandeep Dua Ar. Sumit Kaur Nos 7 3 The Chairman shall be nominated by Vice-Chancellor in the concerned department of University / Constitute Campus / Three Professors from the concerned department of University / Constitute Campus / Affiliated colleges. Three Associate Professors from the concerned disciplines/ subjects in the Three Assistant Professors from the concerned disciplines/ subjects in the University / Constituent Campus/ Affiliated colleges/ Other Universities Chairman of previous BOS disciplines from Board of Studies (Architecture) Affiliated colleges. Chairman Professors Associate Professors Chairman Professors Assistant Vice-

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Dean (P&EP)
I.K. Gujral Punjab Technical University, Jalandhar
Kapurthala

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Board of Studies of G Punjab Technical University (Affiliated Cc Les)

	University / Constitute Campus/ Affiliated Institutes by rotation.	7	Ar. Joyti Singh	Department of Arch. IKGPTU Mohali Campus -II	9818441925	Joyti_singh_1986@yahoo.co.in
		8	Ar. Damandeep Kaur	Department of Arch. IKGPTU Mohali Campus -II	9815441925	Damandk86@gmail.com
Outside Expert	Three Outside Expert from other Organizations / Universities to be nominated by the Vice-Chancellor in	4	Ar. Bhupinder Pal Singh	MRSPTU Bathinda	9417755569	bpaldhot@hotmail.com
	consultation with the Dean Academics	7	Ar. Sohan Lal Saharan, Associate Professor	CCA Chandigarh	9417303195	Saharan.sohan@hotmail.com
		m	Ar. Mohd Saqib, Associate Professor	Jamia Milla Islami, New Delhi	9773571012	anwarfiroz@gmail.com
Industry Expert / Represent-	One Expert from industry and One Representative of Department of CR&A, IKGPTU not below the rank of Assistant Director to be nominated by the Vice-	-	Chief Architect, Punjab / Representative	Govt. of Punjab		
	Chancellor in consultation with the Dean Academics or Chairman, Board of Studies.	2	Dy. Director / Assistant Director CR&A	Department of CR&A, IKGPTU	9478098040	placements.ptu@gmail.com bedi.ptu@gmail.com
Student	One Student of concerned program from University Campus / Constitute Campus		One or more students form the concerned program for Affiliated Collage/ University Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS	1 (1)	•	
Alumni	One Alumni of concerned program form University Campus / Constitute Campus / Affiliated Colleges	-	One or more Alumni's form the concerned program for Affiliated Collage/ University Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS			
BOS Coordinator	One Assistant Professor from the concerned department of the University /	_	Ar. Md. Fuzail Jawaid	IKGPTU Campus, Kapurthala	9465884806	ar.fuzail@gmail.com

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Board of Studies (Communications)	Chairman K JDH K HAB	Vice- Chairman	Professors			Associate Professors			Assistant	#1977 TE	
Board of Studies (Journalism and Mass Communications)		Chairman of previous BOS	Three Professors from the concerned department of University / Constitute Campus / Affiliated colleges.			Three Associate Professors from the concerned disciplines/ subjects in the	Affiliated colleges.		Three Assistant Professors from the concerned disciplines/ subjects in the University / Constitute Campus/	Affiliated Institutes by rotation.	
Nos	-	-		7	3	-	63	6	-	2	3
Name & Designation	Dr. Kamlesh Singh Duggal	Dr. Ranbir Singh	Dr. Navjit Singh Johal	Dr. Harish Kumar	Dr. Mohanmeet Khosla	Dr. Vikas Dogra	Dr. Bindu Sharma	Dr. Namarta Joshi	Dr. Ekta Arora	Dr Rubal Kanozia	Dr. Ashok Kumar Sharma
Address	GNDU RC, Jalandhar	Head, Department of JMC, IKGPTU, Kapurthala	PU Patiala	MDU, Rohtak	PU,Chandigarh	HPU Shimla	KU, Kurusehtra	GNDU, RC, Jalandhar	IKGPTU, Kapurthala	Central University, Bathinda	KU, Kurukshetra
Phone	9815471622	9478098070	9815551476	9416051022	9872866660	9418033126	9878822706	9814325202	9815188835	9855023314	9813155366
Email ID	kamleshsduggal@gmail.com	ranbirdoaba@gmail.com	navjitjohal@redifmail.com	harishimdu@yahoo.co.in	mkhosla@pu.ac.in	Vikasdogra77@gmail.com	bindusharma@kuk.ac.in	Namartajoshi1@gmail.com	Ekta79@gmail.com	indianrubal@gmail.com	lectashok@gmail.com

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Dean (P&EP)

I.K. Gujral Punjab Technical University, Jalandhar

Kapurthala

Board of Studies of G Punjab Technical University (Affiliated Ct. ges)

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Outside Expert	Three Outside Expert from other Organizations / Universities to be nominated by the Vice-Chancellor in	-	Prof. Virbala Aggarwal	HPU, Shimla	9418168234	9418168234 Virbala.aggarwal@rediffmail.com
7	consultation with the Dean Academics	2	Dr. (Prof.) Govind Singh	Central University, Jammu	94140964787	govindsingh@uou.ac.in
		3	Dr. Mohanmeet Khosla	PU, Chandigarh	9872866660	mkhosla@pu.ac.in
Industry Expert Represent- ative	One Expert from industry and One / Representative of Department of CR&A, IKGPTU not below the rank of Assistant Director to be non-inneed to	-	Dr. Lakhwinder Singh Johal	PEX, Doordarshan	9417194812	lakhwinderjohal@yahoo.com
	the Vice-Chancellor in consultation with the Dean Academics or Chairman, Board of Studies.	2	Dy. Director / Assistant Director CR&A	Department of CR&A, IKGPTU	9478098040	placements.ptu@gmail.com
Student	One Student of concerned program from University Campus / Constitute Campus	-	One or more students form the concerned program for Affiliated Collage, University Campus shall be called by the Coordinator in		1	1
Alumni	One Alumni of concerned program form University Campus / Constitute Campus / Affiliated Colleges			i	i	
BOS Coordinator	BOS One Assistant Professor from the Coordinator concerned department of the University / Constitute campus.	-		IKGPTU, Kapurthala	9815188835	Ekta79@gmail.com

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Board of Studies
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Board of S	Board of Studies (Pharmacy)	Nos	Name & Designation	Address	Phone	Email ID
Chairman	The Chairman shall be nominated by Vice-Chancellor in the concerned disciplines from department of University / Constitute Campus / Affiliated colleges/ Other Universities	-	Prof. (Dr.) G. D. Gupta Director-Cum-Principal	ISF College Of Pharmacy, Gt Road, Ghal Kalan, Moga – 142 001	8146562883	drgdg@rediffnail.com
Vice- Chairman	Chairman of previous BOS	-	Dr. Chander Mohan	RBIP, Hosiarpur	9988891210	cmlotia@hotmail.com
Professors	Three Professors from the concerned department of University / Constitute Campus /	4	Dr. D. N. Prasad,	Principal Shivalik College of Pharmacy, Nangal	9417184090	Debu663@rediffnall.com
	Affiliated colleges.	2	Dr. M. Arockia Babu Principal	Chandigarh College Of Pharmacy Landran, Mohali	9781925277	Director.Ccp@Cgc.Edu.In
		3	Dr. Gurpreet Kaur	Akal College of Pharmacy, Mastuana	9463165970	
Associate Professors	Three Associate Professors from the concerned disciplines/ subjects in the University / Constituent Campus/ Affiliated colleges.	_	Dr. Puncet Utereja	PCTE-GROUP OF INSTITUTES Ferozepur Road, Near Baddowal Carit, Ihandey I udhiana	9781125155	Drutreja@Gmail.Com
		8	Dr. Shamsher Singh	ISF College of Pharmacy, GT Road, Bhal Kalan, Moga-142001		shamshersinghbajwa@gmail.com
		3	Dr. Anjoo Kamboj	Chandigarh College of Pharmacy, Landran	9781925296	anjookamboj@gmail.com
Assistant Professors	Three Assistant Professors from the concerned disciplines/ subjects in the University / Constitute		Dr. Pradeep Saha Assistant Professor	SHIVALIK COLLEGE OF PHARMACY NANGAL	9876403997	Shivalikcollegeofpharmacy01@Rediffmail.Com
	Campus/ Affiliated Institutes by rotation.	2	Dr. Jagdeep Singh Dua	SHIVALIK COLLEGE OF PHARMACY NANGAL	9417220859	Shivalikcollegeofpharmacy01@Rediffmail.Com

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I.K. Gujral Punjab Technical University, Jalandhar

Kapurthala

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Board of Studies of G Punjab Technical University (Affiliated Co ges)

	Expert (Expert / R. Represent- C	Sh in no			Coordinator con
	Three Outside Expert from other Organizations / Universities to be nominated by the Vice-Chancellor in consultation with the Dominated Property of the Propert	Academics Will the Dean		One Expert from industry and One Representative of Department of CR&A IKGPTII and Laborated	nominated by the Vice-Chancellor in consultation with the Dean Academics or Chairman, Board of Studies.	One Student of concerned program from University Campus / Constitute Campus	One Alumni of concerned program form University Campus / Constitute Campus / Affiliated Colleges	One Assistant Professor from the concerned department of the University// Constitute campus.
	-	2	ω	-	10		-	
	Dr. Anupam Sharma Professor	Dr. Pawan Krishan Professor	Dr. Subit Jain	CII Nominee	Dy. Director / Assistant Director CR&A	One or more students form the concerned program for Affiliated Collage/ University Campus shall be called by the Coordinator in consulting with Chairman in the meeting of ROS	One or more Alumni's form the concerned program for Affiliated Collage/ University Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BCs.	Dr. Shabir Sidhu, Assistant Professor
Pharmacy, Kharar	University Institute Of Pharmaccutical Sciences, PU. Chd	Department Of Pharamceutical Sciences, Punjab	Deptt. of Pharmaceutical Sciences, GNDU	To be nominated by	Department of CR&A, IKGPTU		•	Main Campus IKGPTU
941/2/92/3	9872021661	9417874747	9815899705		9478098040 9478098076	,		9478098064
Vandana.scope@gmail.com	Anupamsharma@Pu.Ac.In	Pawankrishan@Rediffmail.Com	subheetjain@rediffmail.com		placements.ptu@gmail.com bedi.ptu@gmail.com			shabirsidhu@ptu.ac.in

Dean (P&EP)
I.K. Gujral Punjak
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Board of Addies of IKG Punjab Technical University (A1. Atted Colleges)

and Travel	and Travel Management) 335 335	Nos	Name & Designation	Address	Phone	Email ID
Chairman	The Chairman shall be nominated by	-	Dr. Mohinder Chand Professor	7		
H. Tudio	Vice-Chancellor in the concerned disciplines from department of University / Constitute Campus / Affiliated colleges/Other Universities		Dr. Mohinder Chand, Professor	Department of Hotel Management and Tourism Krukshetra University,	9466620957	mohinderchand@rediffmail.com
Vice-	Chairman of previous BOS	-	X-D	Kurukshetra (Haryana)		
Chairman	Community of Providing BOS		Mr. Deepak Paul	Innocent Heart Institute of Hotel Management,	9216194628	Deepak_paul9@yahoo.com
FIOIESSOIS	Life Professors from the concerned department of University / Constitute Campus / Affiliated colleges.	-	Dr. Bharat Kapoor, Director	C.T Group of Institutions, Shahpur	7508003070	7508003070 Bharatkapoor22@gmail.com
		2	Mr. Ariban Gupta	PCTE, Badhowal, Ludhiana	6280823335	anirban@pcte.edu.in
		w	Dr. Tejdeep Singh Ahluwalia	Vidya Jyoti Institute of Hotel & Catering	8146046665	Reg.vjes@gmail.com
Professors	concerned disciplines/ subjects in the	-	Mr Amit Hasija	Global institute of Hotel Management, Amritsar	9877434760	deanhmct@globalinstitutes.org
	Affiliated colleges.	1	Mr. Gagandeep Singh	HOD Pyramid Institute of Hotel Magement	9814093336	gagandeep.singh@pyramidcollege.edu.in
Assistant		u	Mr. Vivek Sharma	HOD KC Institute	7087753349	chefvivekhm@gmail.com
Professors	Three Assistant Professors from the concerned disciplines/ subjects in the University / Constitute Campus/ Affiliated Institutes by rotation.	-	Dr. Neeraj Aggarwal, Assistant Professor	University Institute of Hotel, Tourism Management, Panjab University, Chandigarh	7017839239	neerajhod@gmail.com
		K	Dr. Jaswinder Kumar, Assistant Professor	University Institute of Hotel, Tourism Management, Panjab	9464679830	9464679830 jaswinderkumarsharma@gmail.com
		ယ	Dr. AnkushAmbardar, Assistant Professor	Department of Hotel Management and Tourism Krukshetra University	9466942556	9466942556 ankushambardar@rediffmail.com
				Kurukshetra (Harvana)		

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Gujral Punjab Technical University, Jalandhar

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Board of Adies of IKG Punjab Technical University (A. lated Colleges)		Ur. Sandeep Malik, Assistant Professor	3 Dr. Prashant. K. Gautam	- /	2 Dy. Director / Assistant Director CR&A	One Student of concerned program 1 One or more students form the concerned from University Campus / Constitute Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS	-	One Assistant Professor from the 1 Dr. Mandeep Kaur, Assistant Professor Department of Concerned department of the University / Constitute campus.
olleges)	đ	-		lot	9478098040		1	
	9501204656 Hardaman.bhinder@gmail.com	9416350585 Smalik02@gmail.com	9815976444 Prashant.k.gautam@gmail.com	9501188331 Gm.cd@lemontreehotels.com	placements.ptu@gmail.com bedi.ptu@gmail.com	•		9478098056 mandeeparoral.ptu1@gmail.com

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Board of Studies of G Punjab Technical University (Affiliated Ca les)

Sciences)	Chairman	Vice- Chairman	Professors			Associate Professors			Assistant Professors
Sciences)	The Chairman shall be nominated by Vice-Chancellor in the concerned disciplines from department of University / Constitute Campus / Affiliated colleges/ Other Universities	Chairman of previous BOS	Three Professors from the concerned department of University / Constitute Campus / Affiliated colleges.			Three Associate Professors from the concerned disciplines/ subjects in the University / Constituent Campus/ Affiliated colleges.			Three Assistant Professors from the concerned disciplines/ subjects in the
Nos		-		22	ω		2	ω	-
Name & Designation	Dr. Pratap Kumar Pati	Dr. Balwant Singh, Professor	Dr. Vanita Mahajan	Dr. Rohit Sharma	Dr. Baljinder Kaur	Dr. Manoj Baranwal	Dr. Minni Singh	Dr. Zarina Begum	Dr. Anupma Mahajan
Address	Professor & Head Biotechnology, GNDU, Amritsar	SSCMT, Amritsar	SSCMT, Amritsar	Department of Biotechnology, PU, Chd	Department of Biotechnology, Punjabi University, Patiala	Department of Biotechnology, Thapar University Patiala	Department of Biotechnology, Punjabi University, Patiala	SUCET Tangori	SUCET Tangori
Phone	0161605166	9888869461	9888869461	9914461545	99145170148	9501262551	9779932011	9417569903	9915354904
Email ID	pkpati@yahoo.com	balwantsingh50in@yahoo.com	balwantsingh50in@yahoo.com	rohit28@pu.ac.in	baljinderbt@hotmail.com	baranwal@thapar.edu	minnisingh@pbi.ac.in	zarina.begum09@gmail.com	anumahajan1964@gmail.com

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I.K. Gujral Punjab Technical University, Jalandhar

Kapurthala

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n d		Boa	Board of Studies of G Punjab Technical University (Affiliated Cc ges)	sity (Affiliated Cc ges)		
	Affiliated Institutes by rotation.	7	Dr. Rachna Hora	Department of Molecular biology and Biochemistry	9888384495	rachnahora@gmail.com
		m	Er. Gazal Shamra	IKGPTU Kapurthala	9478098063	gazalsharma@ptu.ac.in
Outside Expert	Three Outside Expert from other Organizations / Universities to be nominated by the Vice-Chancellor in	-	Dr. Prakash Chandra Mishra	Biotechnology, GNDU, Amritsar	98888384495	mypem@yahoo.co.in
	consultation with the Dean Academics	2	Dr. Navneet Agnihotri	Department of Biochemistry, PU, Chd	9815992186	agnihotri.navneet@gmail.com
		3	Dr. Naveen Kumar	Department of Biotechnology, IIT Roorkee	7088275555	navingbs@iitr.ac.in
Industry Expert / Represent-	One Expert from industry and One Representative of Department of CR&A, IKGPTU not below the rank of	211	CII Nominee	To be nominated by CII		
	Assistant Director to be nominated by the Vice-Chancellor in consultation with the Dean Academics or Chairman, Board of Studies.	2	Dy. Director / Assistant Director CR&A	Department of CR&A, IKGPTU	9478098040	placements.ptu@gmail.com bedi.ptu@gmail.com
Student	One Student of concerned program from University Campus / Constitute Campus		One or more students form the concerned program for Affiliated Collage/ University Campus shall be called by the Coordinator in	1		
Alumni	One Alumni of concerned program form University Campus / Constitute Campus / Affiliated Colleges	_	One or more Alumni's form the concerned program for Affiliated Collage/ University Campus shall be called by the Coordinator in			
BOS Coordinator	One Assistant Professor from the concerned department of the University		consulting with Chairman in the meeting of BOS Dr. Gazal Sharma, Assistant Professor	IKGPTU, Kapurthala	9478098063	gazalsharma@ptu.ac.in

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* Gujal Punjab Technical University, Jalandha

Board of Studies of G Punjab Technical University (Affiliated Ct. ges)

Organi		Auminace		Assistant Three Ass	Allillated colleges.	Professors concerned University				campus /
zations / Universities to be		Annual of mistings by rotation.	concerned disciplines/ subjects in the University / Constitute Campus/		colleges,	Three Associate Professors from the concerned disciplines/ subjects in the University / Constituent Campus/				Inree Professors from the concerned department of University / Constitute Campus / Affiliated colleges.
_	No.	N	800,000	- ω	બ	-	3	2	2	
Mr. Madan Lal	Ms. Chhavi Rai	Ms. Rajwinder Kaur	Ms. Ruchi Chopra	Dr. Chhaya Verma	Dr. Anu H. Gupta	Er. Reeti Pal singh	Ms. Sangeeta Diwan	Dr. Harinder Kaur Saggu		Dr. Simrita Singh
LKA, Chandigarh	KMS College of IT & Mgt. Hoshiarpur	NIFT, Ludhiana	PCTE, Baddowal, Ludhiana	Govt. Home Science College, Sec-10, Chandigarh	PU, Chandigarh	IKGPTU, Kapurthala	GHS College, Chandigarh	PAU, Ludhiana		NIIFT, Mohali
9814904403	9914331470	8725803344	8194853377	9417862612	9417424322	9478098044	8146030934	9779677700		9815754000
Madan_artist@yahoo.com	9914331470 creativ_inst@yahoo.co.in	niiftludhiana@hotmail.com singh.inrajbir1@gmail.com	ruchi@pcte.edu.in	chhayaghsc@gmail.com	guptaanupu@gmail.com	en_rps@yahoo.com	sangitasing17@yahoo.co.in	harsaggu@yahoo.co.in		singhsimrita@hotmail.com

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Board of Studies of G Punjab Technical University (Affiliated Co. ges)

9478098044	O/o Director Main Campus IKGPTU	Associate Professor		Contraction of the last	Coordinator
		Er Reeti Pol Sinch Agentin in the meeting of BOS		One Assistant Professor from the	BOS
	ı	program for Affiliated Collage/ University Campus shall be called by the Coordinator in		University Campus / Constitute Campus / Affiliated Colleges	
		program for Affiliated Collage/ University Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS	-	University Campus / Constitute Campus One Alumni of concerned program form	Alumni
		One or more students form the commend	-	One Student of concerned program from	Student
fCR&A,	Department of CR&A, IKGPTU	Dy. Director / Assistant Director CR&A	, b	the Dean Academics or Chairman, Board of Studies.	
Savi Internation and AM International "Jalandhar	Savi Interna Internationa			Representative of Department of CR&A, IKGPTU not below the rank of Assistant Director to be nominated by	Expert / Represent- ative
garh	PU, Chandigarh			One Expert from industry and One	Industry
s Science c-10,	Govt.Home Science College,Sec-10, Chandigarh			consultation with the Dean Academics	·

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Dr. Parveen Bansal, Dr. Parveen Bansal, Professor Professo	Vine	Vice-Chancellor in the concerned disciplines from department of University / Constitute Campus / Affiliated colleges/ Other Universities	-	Dr. Malkit Singh	Department of Medical Microbiology PGIMER Chandigarh	9855503098	drmalkitpgi@gmail.com
Three Professors from the concerned 1 Dr. Promita Sama, department of University / Constitute Campus Dr. GID Gupta, and Concerned disciplines/ subjects in the Assistant Professors from the Oconcined disciplines/ subjects in the Associate Professor from the University / Constitute Campus Dr. Bhairav Pasad Dr. Bhairav Pa	Chairman	Cuairman of previous BOS		Dr. Parveen Bansal, Professor	Baba Farid University of Health Sciences, Faridkot	09814135703	
2 Dr. Gib Gupta, ISF college of Pharmacy, 8146562883 3 Dr. Monika Gupta, Read, Department of Pharmacy, Brotessor Professor	rrofessors	Three Professors from the concerned department of University / Constitute Campus / Affiliated colleges.	-	Dr. Promila Sama, HOD MLS	BIS Institute, Gagra Kalan, Moga	8288094609 9872825773	drpromilasama@yahoo.com
Three Associate Professors from the Campus Affiliated colleges. Three Associate Professors from the Assistant Professor MLS Institutes by rotation.			7	Dr. GD Gupta, Director	ISF college of Pharmacy, Moga	8146562883	drgdg@rediffmail.com
Three Associate Professors from the Concerned disciplines, subjects in the Assistant Professors from the Concerned disciplines, subjects in the Assistant Professors from the Concerned disciplines, subjects in the			e	Dr. Monika Gupta, Professor	Head, Department of MLS, SASIS College of Pharmacy. Bela Roner	8146891785	monikaguptaa@gmail.com
University Constituent Campus/ Affiliated colleges. Three Assistant Professors from the Concerned disciplines/ subjects in the University / Constitute Campus/ Affiliated Institutes by rotation. University Cahruigarh University Gahrun, Mohali, Pb DMC Ludhiana BUNG Ludhiana Associate Professor Three Assistant Professor MLS Assistant Professor (MLS) Mohali, Pb DMC Ludhiana Punjab Institute of Medical Sciences, Jalandhar, Punjab Ovidya Jyoti Group of Institutes Badowal, Ludhiana Ovidya Jyoti Group of Institutes, Badowal, Ludhiana	rofessors	Three Associate Professors from the	-	Dr. Shiv Kumar,	1000		
Three Assistant Professors from the Campus, Coordinator & Assistant Professor Milated Institutes by rotation. 2 Dr. Dinesh Jain, Associate Professor Three Assistant Professors from the Coordinator & Assistant Professor MLS Affiliated Institutes by rotation. 2 Dr. HS Lamba Associate Professor Assistant Professor MLS DMC Ludhiana PRISS2533 Punjab Institute of PRISS14853 Redical Sciences, Jalandhar, Punjab Vidya Jyoti Group of Institutions, Derabassi, Mohali, Punjab Assistant Professor (MLS) Institutes, Badowal, Ludhiana Ludhiana DMC Ludhiana PRISS2533		University / Constituent Campus/ Affiliated colleges,		Prof. & Head,	th h	9815651637	shivkumarpgi@gmail.com
Three Assistant Professors from the Concerned disciplines/ subjects in the University / Constitute Campus/ Affiliated Institutes by rotation. 2 Mr. Lalit Kumar Affiliated Sciences, Jalandhar, Punjab Coordinator & Assistant Professor (MLS) Carbay of Institutes, Badowal, Ludhiana Ludhiana				Dr. Dinesh Jain, Associate Professor	DMC Ludhiana	9815532533	drjaindinesh@yahoo.co.in
Three Assistant Professors from the concerned disciplines/ subjects in the University / Constitute Campus/ Affiliated Institutes by rotation. 2 Mr. Lalit Kumar Affiliated Institutes Badowal, Ludhiana				Dr. HS Lamba Associate Professor	Punjab Institute of Medical Sciences		lambahsdr@gmail.com
2 Mr. Lalit Kumar Assistant Professor MLS Institutions, Derabassi, Mohali, Punjab. PCTE Group of P88657574 Institutes, Badowal, Ludhiana	Sistant	Three Assistant Professors from the		Dr. Bhairav Prasad			
Assistant Professor (ML.S) PCTE Group of 1988657574 Institutes, Badowal, Ludhiana		University / Constitute Campus/ Affiliated Institutes by rotation.		Coordinator & Assistant Professor MLS	abassi,		bhairavmicro@gmail.com
				Assistant Professor (MLS)			Kumarlalit1985@yahoo.com

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Board of Studies of G Punjab Technical University (Affiliated C. ges)

STEATING FY

Industry One Expert from industry and One Expert / Representative of Department of Represent- CR&A, IKGPTU not below the rank of	Outside Three Outside Expert from other Organizations / Universities to be nominated by the Vice-Chancellor in consultation with the Dean Academics	* % > % > %
One 1	other 1 to be for in mics 2	ယ
Mr. YS Walia	Dr. Renu Bansal Dr. Madan Lal, Professor and Head Microbiology, Dr Radha Krishanan Govenment Medical College Hamirpur. HP.	Mr Savinder Singh Assistant Professor
Ludhiana 141015 Punjab. Walia Clinical Laboratory, 627, Model		Head MLS A&M institute of Computer and
9417211440	9815809999 9914095909 8847219796	9877908261
Waliaclinicallab@yahoo.com	balbirshah@homail.com ucer_renu@yahoo.com Drmadanlal1953@gmail.com	Savindersingh2020@gmail.com

Dean (P&EP)
K. Gujral Punjab Technical University, Jalandhar
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Board of Studies of G Punjab Technical University (Affiliated Ct. Jes)

CGC Technical Campus Jhanjeri
Senior Scientist (Plant Breeding) Division of Plant Breeding, IARI, New Delhi
HOD Agriculture, KCET, Amritsar
Head, Department of Food Engineering, IKGPTU, Kapurthala
Global Institute of Management, Amritsar
CGC Technical Campus Jhanjeri
ACET, Amritsar
Punjab Agricultural University, Ludhiana
H.No. 13, Ajit Nagar, Gali No. 1, Kapurthala 144601
Address

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Dean (P&EP)

I.K. Gujral Punjab Technical University, Jalandhar

Kapurthala

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Board of Studies of G Punjab Technical University (Affiliated Coges)

Dr. Jaswant Singh Dr. Jaswant Singh Dr. Joginder Singh Dr. Pardeep Kumar Dr. Pardeep Kumar Dr. Pirector / Assistant Director CR&A One or more students form the concerned program for Affiliated Collage/ University Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS One or more Alumni's form the concerned program for Affiliated Collage/ University Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS Dr. Amoljit Singh Gill, Assistant Professor	*		<i>د</i> ا أس	Dr. Baljit Kaur Dr. Salesh lindel	PCTE Group of Institutes, Ludhiana	9814005935	drkang@pcte.edu.in kapilprashar@pcte.edu.in
ert Organizations / Universities to be nominated by the Vice-Chancellor in consultation with the Dean Academics 2 Dr. Jaswant Singh Prof. (Rt.), Entomologist, PAU, 4B Shashtri Nagar, Ludhiana Prof. (Rt.), Economist, Pau, 4B Shashtri Nagar, Ludhiana Prof. (Rt			u	Dr. Salesh Jindal	PAU, Ludhiana	896876660	0
consultation with the Dean Academics 2 Dr. Jaswant Singh Prof. (Rt.), Entomologist, PAU, 4B Shashtri Nagar, Ludhiana Stry One Expert from industry and One or nore students of the Urice-Chancellor in consultation with the Dean Academics or Chairman, Board of Studies. ent One Student of concerned program from University Campus / Constitute Campus One Alumni of concerned program form University Campus / Constitute Campus One Assistant Professor from the concerned program for Affiliated Collage/ University Campus / Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS One Assistant Professor from the concerned program for Affiliated Collage/ University Campus / Affiliated Collage/ University Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS One Assistant Professor from the concerned program for Affiliated Collage/ University Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS One Assistant Professor from the concerned program for Affiliated Collage/ University Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS One Assistant Professor from the concerned program for Affiliated Collage/ University Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS Department of CR&A, IKGPTU I Dr. Pardeep Kumar Prof (Rt.), Entomologist, PAU, 4B Shasttri Nagar, Ludhiana Prof (Rt.), Entomologist, PAU, 4B Shasttri Nagar, Ludhiana Prof (Rt.), Entomologist, PAU, 4B Shasttri Nagar, Ludhiana Punjab Agriculture University, Farm Advisory Service Centre, (SASC) Kapurthala Department of CR&A, IKGPTU I Dr. Amoljit Singh Gill, Assistant Professor Mechanical Engineering Min Campus IKGPTU	Outside Expert	Outside zations / ited by the	-	Dr. T.R. Sharma,	HPAU, Palampur	0941805760	
stry One Expert from industry and One ert / Representative of Department of CR&A, IKGPTU not below the rank of Assistant Director to be nominated by the Vice-Chancellor in consultation with the Dean Academics or Chairman, Board of Studies. ent University Campus / Constitute Campus / Affiliated Colleges One Alumni of concerned program form University Campus / Affiliated Colleges One Assistant Professor from the concerned program form the concerned program for Affiliated Colleges One Assistant Professor from the consulting with Chairman in the meeting of BOS Consulting with Chairm		consultation with the Dean Academics	2	Dr. Jaswant Singh	Prof. (Rt.), Entomologist, PAU, 4B Shashtri Nagar, Ludhiana	9855541579	
One Expert from industry and One resent: CR&A, IKGPTU not below the rank of CR&A, IKGPTU not below the rank of Assistant Director to be nominated by the Vice-Chancellor in consultation with the Dean Academics or Chairman, Board of Studies. ent One Student of concerned program from University Campus / Constitute Campus One Alumni of concerned program form University Campus / Constitute Campus / Affiliated Colleges One Assistant Professor from the concerned department of the University Campus. / Constitute campus / Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS / Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS / Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS / Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS / Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS / Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS / Campus shall be called by the Coordinator in consulting with Chairman in the meeting of B			ω		Prof (Rt.) Agri. Economist, PAU, 44 Shant Parka, Ludhiana	9814435516	100000000000000000000000000000000000000
with the Dean Academics or Chairman, Board of Studies. ent One Student of concerned program from University Campus / Constitute Campus // Affiliated Colleges One Assistant Professor from the concerned department of the University // Constitute campus. Department of CR&A, IKGPTU II One or more students form the concerned program for Affiliated Collage/ University Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS One Assistant Professor from the concerned program for Affiliated Collage/ University Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS One Assistant Professor from the concerned program for Affiliated Collage/ University Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS One Assistant Professor from the concerned program for Affiliated Collage/ University Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS One Assistant Professor from the concerned program for Affiliated Collage/ University Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS One Assistant Professor Mechanical Engineering Main Campus IK CPT11	Expert / Represent- ative	Representative of Department of CR&A, IKGPTU not below the rank of Assistant Director to be nominated by			Punjab Agriculture University, Farm Advisory Service Centre, (SASC) Kapurthala	9501023334	
ent One Student of concerned program from University Campus / Constitute Campus One Alumni of concerned program form University Campus / Constitute Campus / Affiliated Colleges One Assistant Professor from the concerned by the Coordinator in consulting with Chairman in the meeting of BOS / Affiliated Colleges One Assistant Professor from the concerned by the Coordinator in consulting with Chairman in the meeting of BOS Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS One Assistant Professor from the concerned program for Affiliated Collage/ University Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS One Assistant Professor from the concerned program for Affiliated Collage/ University Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS One Assistant Professor from the concerned program for Affiliated Collage/ University Campus Shall be called by the Coordinator in consulting with Chairman in the meeting of BOS One Assistant Professor Mechanical Engineering Main Campus IKGPTII		with the Dean Academics or Chairman, Board of Studies.			Department of CR&A, IKGPTU	9478098040 9478098076	
University Campus / Constitute Campus / Affiliated Colleges One Assistant Professor from the concerned department of the University / Constitute campus. One Alumni's form the concerned uprogram for Affiliated Collage/ University Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS Department of Mechanical Engineering Main Campus IK GPT11		One Student of concerned program from University Campus / Constitute Campus		One or more students form the concerned program for Affiliated Collage/ University Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS	-	f	
dinator concerned department of the University Dr. Amoljit Singh Gill, Assistant Professor Department of Department of Department of Department of Mechanical Engineering Constitute campus. Main Campus KGPT1		One Alumni of concerned program form University Campus / Constitute Campus / Affiliated Colleges	_	One or more Alumni's form the concerned program for Affiliated Collage/ University Campus shall be called by the Coordinator in consulting with Chairman in the meeting of BOS	1		THE STATE OF STREET
Of Intil Shalling with a	dinator	One Assistant Professor from the concerned department of the University Constitute campus.			Department of Mechanical Engineering Main Campus IKGPTU	9988700421	

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Vive-State Viv	Chairman	The Chairman shall be nominated by	1				Email ID
Three Professors from the concerned department of University / Constituer Campus Affiliated colleges. Three Associate Professors from the University / Constituer Campus / Affiliated colleges. Three Assistant Professors from the University / Constituer Campus / Affiliated colleges. Three Assistant Professors from the University / Constituer Campus / Affiliated colleges. Three Assistant Professors from the University / Constituer Campus / Affiliated colleges. Three Assistant Professors from the University / Constituer Campus / Connected discipliness subjects in the University / Constituer Campus / Connected discipliness subjects in the University / Constituer Campus / Connected discipliness subjects in the University / Constituer Campus / Affiliated notitutes by rotation. 3 Dr. Monika Affiliated National Raur Associate Professor (CA), Jahandhar Associate Professor (CA), Jahandhar Assistant Professor (CA), Jahandhar Assistant Professor (CA), Professor (CA), Dr. Kuliwant Kaur Assistant Professor (CA), Dr. Kuliwant Kaur Asini Assistant Professor (CA), Dr. Kuliwant Kaur Asini Assistant Professor (CA), Dr. Kuliwant Kaur Asini Assistant Professor (CA		Vice-Chancellor in the concerned disciplines from department of University / Constitute Campus / Affiliated colleges/ Other Universities			Professor, Punjabi University, Patiala		amardeepdhiman@gmail.com
Three Professors from the concerned department of University / Constitute Campus / Affiliated colleges. Dr. Amit Verma Dr. Kapil Prashar Dr. Kapil Prashar Campus / Affiliated colleges. Dr. Amit Verma Dr. Kapil Prashar College, Landran, Mohali Dr. Kapil Prashar Concerned disciplines/ subjects in the University / Constitute Campus Dr. Dr. Monika	iliman	Cuantilian of previous BOS		Dr. Akshay Girdhar	Professor, Deptt. of IT, GNDEC, Ludhiana	9855961620	1000
Three Associate Professors from the University / Constitute Campus/ Affiliated Institutes by rotation. Three Associate Professors from the Affiliated Institutes by rotation. Three Assistant Professors from the Assistant Professor from the University / Constitute Campus/ Affiliated Institutes by rotation. Three Assistant Professors from the Assistant Professor from the University / Constitute Campus/ Affiliated Institutes by rotation. Three Assistant Professor & Dr. Kulwant Kaur Assistant Professor & Dr. Kulwant Kaur Assistant Professor & HOD. Sumesh Sood Assistant Professor & HOD. Sumesh Sood Assistant Professor & HOD. Sumesh Sood Assistant Professor & HOD. Survey & Affiliated Institutes by rotation. Three Assistant Professor & HOD. Survey & Assistant Professor & HOD. Strike Profess	essors	Three Professors from the concerned department of University / Constitute Campus / Affiliated colleges,		Dr. Kulwinder Singh	Professor Deptt. of IT, GNDEC Ludhiana	9915507920	
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Three Associate Professors from the Concerned disciplines/ subjects in the Assistant Professors from the Assistant Professors from the Concerned disciplines/ subjects in the University / Constitute Campus/ Affiliated Institutes by rotation.			m	Dr. Shabnam Kaur	Principal, KMS College, Hoshiarpur	9530781100	kmscollegedasuya@gmail.com
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Expert	Organizations / Universities to be nominated by the Vice-Chancellor in consultation with the Dean Academics		Dr. Pankaj Deep Kaur	Dept. of CSE, GNDU Regional Campus, Jalandhar	782888889787	pankajdeepkaur@gmail.com
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Industry Expert / Represent- ative	One Expert from industry and One Representative of Department of CR&A, IKGPTU not below the rank of Assistant Director to be nominated by the Vice-	-	Mr. Gurpreet Singh	Director, GTB Infotech, 24, Chotti Baradari-1, Jalandhar	9815927278	info@gtbinfotech.com
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Student	One Student of concerned program from University Campus / Constitute Campus	-	One or more students form the concerned program for Affiliated Collage/ University Campus shall be called by the Coordinator in the most of the consulting with Chairman in the most of the consulting with Chairman in the most of the consulting with Chairman in the consulting with Chairm		ı	1
Alumni	One Alumni of concerned program form University Campus / Constitute Campus / Affiliated Colleges	_	BOS One or more Alumni's form the concerned program for Affiliated Collage/ University Campus shall be called by the Coordinator in consulting with Chairman in the meeting of		ı	
BOS Coordinator	One Assistant Professor from the concerned department of the University / Constitute campus.	-	BOS Dr. Pooja Sharma	Assistant Professor (CA) Main Campus IKGPTU	9888947360	sharma_pooja@live.com

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Expert			Expert / Represent- ative		Student	Alumnu	BOS Coordinator
Organizations / Universities to be nominated by the Vice-Chancellor in	Source Pour Ventalities		Representative of Department of CR&A, IKGPTU not below the rank of Assistant Director to be nominated by	with the Dean Academics or Chairman, Board of Studies.	One Student of concerned program from University Campus / Constitute Campus	One Alumni of concerned program form University Campus / Constitute Campus / Affiliated Colleges	One Assistant Professor from the concerned department of the University / Constitute campus.
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Dr. Harsangeet Pal Kaur, Professor Defense Studies	Dr. Gurpreet Kaur Assistant Professor English	Dr. K.K. Dass Professor (Rt). History	CII Nominee	Dy. Director / Assistant Director CR&A	One or more students form the concerned program for Affiliated Collage/ University Campus shall be called by the Coordinator in consulting with Chairman in the Coordinator in	One or more Alumni's form the concerned program for Affiliated Collage/ University Campus shall be called by the Coordinator in	Dr. Jagmeet Bawa, Assistant Professor Human Value
Department of Distance Education, Punjabi	Shaheed Baba Jiwan Singh Khalsa College, Sultani Sahib, (GNDU Amritsar)	Professor (Rt) History, Central University of Manipur, Imphal Now	,	Department of CR&A, IKGPTU	1		IKGPTU Campus, Kapurthala
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Annexure "B"

To review the implementation of Choice Based Credit System (CBCS) of University.

Agenda Item No. 3.9.4

Sr. No	Department Name	Status	Annexure
1	Electrical Engineering	-	-
2	Electronics Communication on Engineering	Only credit system is implemented.	-
3	Civil Engineering	The CBCS has been adopted by the BoS with the provision of a Minor & honors degree. The detaining work on the same has started will be taken up in subsequent meetings of BoS.	
4	Management	Credit based system as approved by examination department of IKGPTU (Annexure-III) has been implemented in the curriculum of MBA and BBA programs. The option of major and minor has been incorporated in the revised curriculum of MBA (Annexure-IV), whereas option of discipline specific electives has been incorporated in the revised curriculum of BBA (Annexure-V).	Annexure- III,IV,V
5	Mechanical Engineering	Implemented by BOS of Mechanical Engineering.	-
6	Chemical Sciences	CBCS already implemented.	•
7	Physical Sciences	1. To review the implementation of CBCS: University has to decided to implement CBCS in letter of sprit, The decision have to be taken by the Academic council as per the recommendation of the concerned BOS with approval of BOG.	
		2. For including more minor elective subjects to be offered in the department for CBCS. Department shall require more regular faculty with desired specialization. At present elective subjects as per faculty specialization are already being offered in the department.	
8	Journalism & Mass Communication on	We follow credit based system.	
9	Humanities Languages Cultural Studies	The implementation of CBCS has to be taken up at the controller of Exam/University level.	•

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CREDIT BASED SYSTEM (CBS) APPLICABLE TO

CAMPUSES, AUTONOMOUS & AFFILIATED COLLEGES/INSTITUTIONS OF I. K. GUJRAL PUNJAB TECHNICAL UNIVERSITY

DEPARTMENT OF ACADEMICS I.K. GUJRAL PUNJAB TECHNICAL UNIVERSITY JALANDHAR FIREITHIUE)

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- 1. PREAMBLE
- 2. WHY CHOICE BASED CREDIT SYSTEM
- 3. APPLICABILITY OF CHOICE BASED CREDIT SYSTEM
- 4. DEFINITIONS OF KEY WORDS
- 5. COURSE STRUCTURE/ PATTERN
- 6. EVALUATION OF ACADEMIC PERFORMANCE OF STUDENTS
- 7. EXAMINATION AND ASSESSMENT
- 8. COMPUTATION OF SGPA and CGPA
 - 8.1. Semester Grade Point Average (SGPA)
 - 8.2. Cumulative Grade Point Average (CGPA)
- 9. CONVERSION OF CGPA TO PERCENTAGE
- 10. EVALUATION SYSTEM FOR CONSTITUENT AND AFFILIATED

COLLEGES/INSTITUTIONS OF IKGPTU

- 10.1. Grading for Theory courses
 - a. Internal Evaluation
 - b. External Evaluation
- 10.2. Grading for Practical courses
 - a. Internal Evaluation
 - b. End semester Examination

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1. PREAMBLE

I. K. Gujral Punjab Technical University (IKGPTU) (Formly known as Punjab Technical University), Jalandhar was established in the Year 1997 under the Punjab Technical University Act, 1996 (Punjab Act No. 1 of 1997) to enhance technical education and development thereof in the State of Punjab and for matters connected therewith. The University is aware of the urgent need to move towards Choice-Based Credit System (CBCS) and Grading system as per guide lines of UGC. The university has already implemented Credit Based System from the Academic session- 2015-16. The University is committed to implement CBCS in future.

2. WHY CHOICE BASED CREDIT SYSTEM

The Choice Based Credit System (CBCS) enables a student to obtain a degree by accumulating required number of credits prescribed for that degree. The student also has choice in selecting courses out of those offered by various departments. The grade points earned for each course reflects the student's proficiency in that course. The CBCS enables the students to earn credits across departments and provides flexibility in duration to complete a Program of study. The CBCS facilitates transfer of credits earned in different Departments/Centres of other recognized / accredited universities or institutions of higher education in India and abroad.

3. APPLICABILITY OF CHOICE BASED CREDIT SYSTEM

The Choice Based Credit System (CBCS) shall apply to all Under Graduate/Post Graduate Courses of IKGPTU's Campuses, Autonomous Institutions and affiliated Colleges/Institutions. Under CBCS the requirement for awarding a degree is prescribed in terms of number of credits and students are given choices from the pool of elective courses.

4. DEFINITIONS OF KEY WORDS

- 4.1. Hon' able Vice Chancellor (VC): Means the Hon' able Vice Chancellor (VC) of the I. K. Gujral Punjab Technical University, Jalandhar.
- 4.2. Dean (Academics): Means the Dean (Academics) of the I. K. Gujral Punjab Technical University, Jalandhar.
- 4.3. Academic Year: Two consecutive (one odd + one even) semesters constitute one academic year.

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- 4.4. Credit Based System (CBS): The CBS provides choice for students to select from the prescribed courses (core, elective and inter-disciplinary courses).
- 4.5. Program/Discipline: An educational program/discipline leading to award of a Degree/Diploma/Certificate.
- 4.6. Course: Usually referred to, as 'subject' is a component of a program/discipline. All courses need not carry the same weight. The courses should define learning objectives and learning outcomes. A course may be designed to comprise lectures/ tutorials/laboratory work/ field work/ outreach activities/ project work/ vocational training/viva/ seminars/ term papers/assignments/ presentations/ self-study etc. or a combination of some of these.
- 4.7. Credit: A unit by which the course work is measured. It determines the number of hours of instructions required per week. One credit is equivalent to one hour of teaching (Lecture or Tutorial) or two hours of practical work/field work per week.
- 4.8. Credit Point: It is the product of grade point and number of credits for a course.
- 4.9. Credit Based Semester System (CBSS): Under the CBSS, the requirement for awarding a degree/diploma/certificate is prescribed in terms of number of credits to be completed by the students.
- 4.10. Grade Point: It is a numerical weight allotted to each letter grade on a 10-point scale.
- 4.11. Letter Grade: It is an index of the performance of students in a said course. Grades are denoted by letters O, A+, A, B+, B, C, P and F.
- 4.12. Semester: Each semester will consist of 15-18 weeks of academic work equivalent to 90 actual teaching days. The odd semester may be scheduled from July to December and even semester from January to June.
- 4.13. Semester Grade Point Average (SGPA): It is a measure of performance of work done in a semester. It is ratio of total credit points secured by a student in various courses registered in a semester and the total course credits taken during that semester. It shall be expressed up to two decimal places.
- 4.14. Cumulative Grade Point Average (CGPA): It is a measure of overall cumulative performance of a student over all semesters. The CGPA is the ratio of total credit points secured by a student in various courses in all semesters and the sum of the total credits of all courses in all the semesters. It is expressed up to two decimal places.

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- 4.15. Grade Card or Certificate: Based on the grades earned, a grade certificate shall be issued to all the registered students after every semester. The grade certificate will display the course details (code, title, number of credits, grade secured) along with SGPA of that semester and CGPA earned till that semester.
- 4.16. End Semester Examination: The examination conducted by the University at the end of the semester.
- 4.17. Internal Evaluation: The Midterm Sessional Tests (MST) quizzes/ group discussion/ class discussion/ attendance/ seminars / projects/ case studies etc. comprise the internal evaluation.
- **4.18.** Degree: An award conferred by university signifying that the student has satisfactorily completed a program/discipline of study.

5. COURSE STRUCTURE/ PATTERN

The Under Graduate/ Post Graduate degree courses will consist of three major components i.e., Core Courses, Elective Courses and Inter Departmental Courses.

- 5.1. Core courses: These are offered by the parent department and are totally related to the major/discipline course. The core courses also include subjects related to Basic Sciences and Humanity. The components like Practicals, Projects, Group Discussions, Viva, Field Visits etc. will be the part of the core course. The credits for Basic Sciences/Humanity and Core courses will be 10%-20% and 55%-75% of the total credits of a program/discipline respectively.
- 5.2. Elective courses: These are also offered by the parent department. These courses will provide choice and flexibility within the department. The student can choose his/her elective paper. Elective is related to the major course. The difference between core course and elective course is that the core course is a regular course as the part of the curriculum whereas in elective course, there is choice for the student. The credits for Elective courses will be 10%-15% of the total credits of a program/discipline.
- 5.3. Inter Disciplinary Elective courses: The department is at liberty to offer three to four Inter Disciplinary Elective courses and these courses are called as inter-departmental courses. These courses are offered by a department for the students belonging to other departments. The objective is to provide mobility and flexibility outside the parent department. These courses are introduced to make every course multi and inter-disciplinary in nature. These courses are to be chosen from a list of

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courses offered by various departments. The credits for Inter Departmental Courses will be 5%-10% of the total credits of a program/discipline.

6. EVALUATION OF ACADEMIC PERFORMANCE OF STUDENTS

The academic performance of student in each course will be evaluated as per Table 1.

Table 1: Structure of grading academic performance

S. No.	Grade	Qualitative Meaning	Grade points
1	0	Outstanding	10
2	A ⁺	Excellent	9
3	A	Very good	8
4	B ⁺	Good	7
5	В	Above Average	6
6	С	Average	5
7	P	Marginal/Pass	4
8	F	Failed	0
9	Ab	Absent	0
10	1	Incomplete	•
11.	Е	Detained	0
12	S/US	Satisfactory/Unsatisfactory	4

Description of Grades:

- 6.1. "O" Grade stands for outstanding achievement. The "P" grade stands for marginal/Pass performance. It is the minimum passing grade in any course.
- 6.2. "I" grade denotes incomplete performance. It may be awarded to a student if he/she does not appear in End Semester Examination due to some extraordinary circumstances.
- 6.3. "E" grade is awarded if student is detained i.e., attendance in theory class/laboratory is less than 75% and the student will have to repeat the course as and when offered.
- 6.4. "F" grade is given to the student who has appeared in the End Semester Examination but failed to get "minimum qualified marks".

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* SECURITION UNIVERSITY, JAILANDES

6.5. "Ab" grade is awarded if the student is absent in the End Semester Examination without any valid reason.

Corresponding to earned letter grade for each course, the particular grade points are as given in Table 1. The Grade Point Average (GPA) is calculated by taking the number of grade points a student earned in a given period of time divided by the total number of credits undertaken for the studies. Each course is assigned with a weightage called credits. Table 2 shows the procedure to be followed to calculate number of credits for one hour of teaching per week for each course.

Table 2: Credits corresponding to one hour of Lecture/Tutorial/ Practical

S. No.	Teaching component	Credit(s)
1	Lecture	01 credit for 01 lecture hour per week
2	Tutorial/Studio*	01 credit for 01 tutorial/studio hour per week
3	Practical/Field Visit*	01 credit for 02 practical/Field visit hour per week. Three/four Laboratory hours per week shall be assigned two credits. Five/six Laboratory hours per week shall be assigned three credits. Seven/eight Laboratory hours per week shall be assigned four credits.
4	Seminar	01 credit for 01 practical/study hour per week
5	Project	01 credit for 01 hour per week or as defined in the syllabus
6	Dissertation	01 credit for 01 practical/study hour per week or as prescribed in the program/discipline.
7	Industrial Training	Equivalent to one semester though comprehensive evaluation mechanism as per defined norms.

^{*}Applicable for Architecture

7. EXAMINATION AND ASSESSMENT

The performance of student in each course shall be evaluated through continuous assessment consisting of examinations/tests/quizzes etc. as per the guide lines given in Table 3. An academic calendar indicating the schedule of continuous assessment will be notified by the University before the start of the academic session.

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Table 3: Continuous Assessment Criterion

Examination (Theory)	Syllabus to be covered in the examination	Time allotted for the examination	Weightage (Marks)	Remarks
Midterm Sessional Test (MST)-I	Upto 33%	1.5 Hour	24%	Best two tests shall be
Midterm Sessional Test(MST) - II	33 % to 66 %	1.5 Hour		considered and in any
Midterm Sessional Test (MST) - III	66% to 100%	1.5 Hour		case no special test will be
Quizzes/Group discussion / Class discussion/ attendance/ seminars / projects/ case studies assignments etc.	As per discretion of teacher	As per discretion of teacher	16%	conducted for the students who remained absent in any of the MST. MST-I, II, III and quizzes etc constitute internal evaluation.
End Semester Examination	100% Syllabus	3 Hours	60%	Checking of answer sheets will be done at the University level. This component is called external evaluation.
Total			100%	Marks may be rounded off to nearest integer
Practical				8
Daily evaluation of practical records/Assignment/Viva Voce/Attendance etc.			60%	Internal evaluation
Final Practical Performance + Viva Voce	100% Syllabus	3 Hours	40%	External evaluation
Total			100%	Marks may be rounded off to nearest integer

There must be an overall Coordinator at the Institution/Department level to coordinate for the proper implementation of the same. Coordinator will ensure that syllabus covered before internal and external evaluation must be as per Table 3.

The marks computed out of 100 shall be used to find grade and grade points for each course/component. Finally grade points of all courses shall be used to compute SGPA and then CGPA.

- 7.1. All evaluations of different components of a course shall be done in marks for each student. The marks obtained in theory/practical courses or other teaching components shall be scaled to 100 (40 internal evaluation+60 external evaluation for Theory paper and 60 internal evaluation +40 external evaluation for Practical paper) up to next integer value. Finally the grades will be assigned to each student in each course as per following guidelines:
 - (a) Absolute grading will be used for class having less than 30 (<30) registered students. The criterion is outlined in Table 4.

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Table 4: Absolute grading criterion

Sr. No.	Marks	Grade	Grade points
1	≥ 90 &≤100	0	10
2	≥ 80 & <90	A+	9
3	≥ 70 & <80	A	8
4	≥ 60 & <70	B+	7
5	≥ 50 & <60	В	6
6	≥ 45 & <50	C	5
7	≥ 40 & <45	P	4
8	<40	F	0

Note:-The grade boundaries as indicated above may be marginally adjusted

(b) Relative grading will be used for a class having 30 or more (\geq 30) registered students as statistical distributions are suitable for samples having 30 or more number of elements. The criterion is outlined in Table 5. Workout example for different values of σ and μ and corresponding grades has been given in Annexure-I.

Table 5: Relative grading criterion

Sr. No.	Marks	Grade	Grade points
1	≥ µ+1.80σ	0	10
2	$\geq \mu+1.35\sigma$ and $\leq \mu+1.80\sigma$	A+	9
3	$\geq \mu + 0.85\sigma$ and $\leq \mu + 1.35\sigma$	A	8
4	$\geq \mu + 0.35\sigma$ and $\leq \mu + 0.85\sigma$	B+	7
5	$\geq \mu$ and $< \mu + 0.35\sigma$	В	6
6	$\geq \mu$ -0.35 σ and $\leq \mu$	C	5
7	≥ 40% Marks and < µ-0.35σ		4
8	<40% (Marks)	F	0

Note:

I. μ is mean and σ is standard deviation of marks obtained in the class (Annexure II)

2. The grade boundaries as indicated above may be marginally adjusted if there is any violation of upper or lower limits

3. Lower and higher outliers can be separated before awarding the grades

7.2. "F", "Ab", "I", and "P" grades:

a) It is compulsory to secure at least 20% marks in each course to be considered for grading. If a student secures less than 20% marks he/she will be awarded "F" grade in that course.

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- b) It is also compulsory to appear in the End Semester Examination. If student does not appear in the End Semester Examination without the permission of Hon'able Vice Chancellor/ Dean (Academics), he/she will be awarded "Ab" grade in that course.
- c) "I" grade (Incomplete) would be awarded to the student who has not appeared in the End Semester Examination due to a justified reasons in extraordinary circumstances. "I" grade shall be awarded to the student only after approval from Hon'able Vice Chancellor/ Dean (Academics). In case a student get "I" grade, he/she has to appear only in End Semester Examination. His/her internal assessment marks will be freezed and he/she will be given grade as per mean and standard deviation of his/her original class without modification in grades of other students. In case, absolute grading is applicable then fixed thresholds will be used as per Table 4.
- d) "P" grade shall not be awarded for percentage of marks less than 40%. Still further, no student having 40% or more marks will be awarded failing grade "F" i.e. any student having 40% or more marks will get atleast "P" grade.
- 7.3. A student can apply for improvement in grade of any course in which he/she has got "P" grade. He/she will be allowed to appear only in End Semester Examination and will be evaluated as per performance of his original class. In any case grade of other students of his/her original class shall not change. The student can improve to the most in two subjects and maximum grade can be up to "A" grade if CGPA is more than 6.0 at the end of degree. However, student can improve more than two subjects and maximum grade can be up to "A" grade to attain the 6.0 CGPA (or 60% marks) if CGPA is less than 6.0 at the end of the degree.
- 7.4. A student who secures "F" or "Ab" grade will have an option to appear in End Semester Examination i.e. external component. His/her internal assessment marks will be freezed and he/she will be given grade as per mean and standard deviation of his/her original class without modification in grades of other students. In case, absolute grading is applicable then fixed thresholds will be used as per Table 4.

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Moreover he/she will also have the option to repeat the course by re-registering in that course, whenever it is offered next time.

- 7.5. Every class instructor teaching a class will take attendance till the last instructional day in the semester. The statement of the attendance with marks in MST should be displayed on the notice board and submitted to the department within one week of conduct of the MST. The next day after the last instructional day, a statement of shortage of attendance i.e. detainee student list may be submitted to the department.
- 7.6. A student shall have to attend 75% of Lectures (including tutorials) of a course(s) otherwise he/she will be detained in that course(s).
 Dean (Academics) of the University in case of University/constituent College and Principal/Director in case of affiliated institutions may condone attendance shortage upto 10% in the total for the reasons to be recorded in writing (owning to serious illness, calamity, participation in any game/sports/competitions with the approval of the Institution etc.). However, under no circumstances, a student who has an aggregate attendance of less than 65%, in a semester shall be allowed to appear in the End Semester Examination.
- 7.7. A student is detained in a course, whatever may be the reason for the shortfall in attendance, will not be permitted to sit for the End Semester Examination in the course. He/she will be awarded E grade for the course. In order to earn credits for this course, the student will have to re-register for the course, whenever it is offered next time. The department will not make any adjustment in time table for such students. In case a student is detained in the elective course, atleast one time in one year such course has to be offered to such student by making appropriate arrangements for conducting the classes.
- 7.8. There are no grade points for "F", "Ab", "I" and "E" grades, so they are not considered for SGPA and CGPA. However for calculating total number of credits, all the courses allotted in the semester(s) are considered for calculation of SGPA and CGPA.

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- 7.9. SGPA and CGPA shall be calculated up to two decimal place, after rounding off the third decimal to the nearest second place integer decimal i.e. 0.005 is to be increased to 0.01. CGPA should be computed after every semester.
- 7.10. To obtain "O", student has to appear in all the teaching/evaluation component of the course. However, in the view of the merit of the student, the teacher may consider to award "O" grade for a student who has not gone through all the component of the course.
- 7.11. An honors degree will be conferred at CGPA of 8.0 or above provided student should not have obtained even a single "F", "Ab" or "E" in any course during whole duration of the course.

8. COMPUTATION OF SGPA and CGPA

The performance of a student will be evaluated in terms of two indices, viz., semester grade point average (SGPA) and cumulative grade point average (CGPA) for the completed semesters at any point in time. SGPA and CGPA shall be calculated up to two decimal places, thus 0.005 to be rounded off to 0.01.

8.1. Semester Grade Point Average (SGPA): The performance of a student in a particular semester will be measured by semester grade point average (SGPA), which is a weighted average of the grades secured in all the courses/teaching components taken in a semester and scaled to a maximum 10.

Let the grade points associated with the letter grades awarded to a student in assigned courses are g_1, g_2, g_3, g_4, g_5 and the corresponding credits are w_1, w_2, w_3, w_4, w_5 , the SGPA will be calculated as

SGPA =
$$\frac{w_1g_1 + w_2g_2 + w_3g_3 + w_4g_4 + w_5g_5}{w_1 + w_2 + w_3 + w_4 + w_5}$$

In general, it can be written as

$$SGPA = \frac{\sum_{i=1}^{m} w_i g_i}{\sum_{i=1}^{m} w_i}$$

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Where,

 w_i is credit of i^{th} course, g_i is grade point of i^{th} course and m is number of courses in one semester.

Here,
$$g_i = p_s g_{is} + p_{ese} g_{iese}$$

ps is the prescribed percentage weightage to Internal Evaluation
pesse is the prescribed percentage weightage to End Semester Evaluation
gis is grade point obtained in Internal Evaluation
gesse is grade point obtained in End Semester Evaluation

For instance, suppose a student is registered for one 5-credit course, four 4-credit courses and one 3-credit course during a semester i.e., a total 24 (5+4×4+3)-credits. If he/she secures O, A+, A, B+, B & P grades respectively in these courses in internal evaluation having 40% weightage and A, B, C, P, B & C grades respectively in end semester examination having 60% weightage, his/her SGPA can be calculated as follows:

SGPA=

 $\frac{(0.4 \times 10 + 0.6 \times 8) \times 5 + (0.4 \times 9 + 0.6 \times 6) \times 4 + (0.4 \times 8 + 0.6 \times 5) \times 4 + (0.4 \times 7 + 0.6 \times 4) \times 4 + (0.4 \times 6 + 0.6 \times 6) \times 4 + (0.4 \times 4 + 0.6 \times 5) \times 3}{24}$

$$= \frac{44 + 28.8 + 24.8 + 20.8 + 24 + 13.8}{24} = \frac{156.2}{24} = 6.51$$

SGPA will be calculated up to two decimal place only.

8.2. Cumulative Grade Point Average (CGPA): The cumulative grade point average (CGPA) indicates the overall academic performance of a student in all the courses registered upto and including the latest completed semester. It is computed in the same manner as the SGPA, considering all the courses (say n), and is given by

$$CGPA = \frac{\sum_{i=1}^{n} w_i g_i}{\sum_{i=1}^{n} w_i}$$

The grades of any and all repeated courses shall be included in the official transcripts. However once a student repeats and passes a course in which he/she had failed earlier, the earlier fail grade do not enter into the computation of CGPA.

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9. CONVERSION OF CGPA TO PERCENTAGE

The conversion of SGPA or CGPA to Percent score will be carried out by multiplication of respective SGPA or CGPA by a factor of 9.5. The equivalence between important percentages in absolute marks system and CGPA is given in Table 6.

Table 6: Equivalence between Percentages in absolute marks system and CGPA

CGPA (X)	4	5	6	7	8	9	10
Percentage (Y)	38	47.5	57	66.5	76	85.5	9.5

Percentage $(Y) = CGPA(X) \times 9.5$

CGPA of 6 is equivalent to 57 percent.

10. EVALUATION SYSTEM FOR CONSTITUENT AND AFFILIATED COLLEGES/INSTITUTIONS OF IKGPTU

10.1. Affiliated Institutions

For affiliated Institutions, the End Semester Examination (Theory) will be held at the University level, as per the pattern followed by the University time to time. The grading will be prepared by the University based on the marks obtained by the students in Internal and External Evaluation, both for Practical as well as Theory courses using Absolute Criteria. The Students are allowed for re-evaluation for End semester Examination.

10.2. Academic Autonomous Institutions

Relative grading for Internal Evaluation as well as End Semester Examination will be followed by the Institutions having the Academic Autonomy. The grading will be done at Institute level. The grading will be done after showing the Answer sheets to the students and thereafter no re-evaluation will be done for End Semester Examination for these Autonomous Institutions.

Jurisdiction: All disputes will be settled under the jurisdiction of Jalandhar Court.

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Annexure-I

Work-out example for different values of '\mu' & '\sigma' with corresponding Grades

п	≥µ+1.80c	≥ µ+1.35σ and <µ+1.80σ	≥ μ+0.85σ and < μ+1.35σ	≥ μ+0.35σ and < μ+0.85σ	≥ μ and < μ+0.35σ	≥ μ-0.35σ and < μ	≥ 40% Marks and < µ-0.35σ	< 40% (Marks)
50 10	894	> 63.5and <68	>58.5and <63.5	>53.5and <58.5	50≥and <53.5	>46.5 and <50	>40 and <46.5	< 40
50 20	98<-	>77 and <86	>67 and <77	> 57and <67	50≥and <57	≥43 and <50	≥40 and <43	05>
55 10	≥73	≥68.5 and <73	263.5 and <68.5	>58.5and <63.5	55>and <58.5	>51.5 and <55	>40 and <51.5	< 40
55 20	<u> </u>	>82 and <91	≥72 and <82	≥ 62 and <72	55>and <62	≥48 and <55	≥40 and <48	249 749
60 10	≥78	≥73.5 and <78	>68.5 and <73.5	263.5and <68.5	60>and <63.5	>56.5 and <60	>40 and <56.5	< 40
60 20	96€	>87 and <96	≥77 and <87	≥67 and <77	60≥and <67	>53 and <60	>40 and <53	94
Grade	0	*	A	B+	8	C		T.

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Annexure-II Work-out example for Calculating 'μ' & 'σ'

Roll	Marks obtained(X ₁)	(Xtair)	(Х ₁ -μ.) ²
IKGPTU-1	25	0.82	0.68
IKGPTU-2	0	-24.18	584.46
IKGPTU-3	24	-0.18	0.03
IKGPTU-4	33	8.82	77.87
IKGPTU-5	25	0.82	0.68
IKGPTU-6	24	-0.18	0.03
IKGPTU-7	0	-24.18	584.46
IKGPTU-8	24	-0.18	0.03
IKGPTU-9	26	1.82	3.33
IKGPTU-10	24	-0.18	0.03
IKGPTU-11	44	19.82	393.00
IKGPTU-12	29	4.82	23.27
IKGPTU-13	33	8.82	77.87
IKGPTU-14	26	1.82	3.33
IKGPTU-15	24	-0.18	0.03
IKGPTU-16	25	0.82	0.68
IKGPTU-17	36	11.82	139.81
IKGPTU-18	30	5.82	33.92
IKGPTU-19	32	7.82	61.22
IKGPTU-20	24	-0.18	0.03
IKGPTU-21	24	-0.18	0.03
IKGPTU-22	25	0.82	0.68
IKGPTU-23	39	14.82	219.76
IKGPTU-24	30	5.82	33.92
IKGPTU-25	27	2.82	7.98
IKGPTU-26	26	1.82	3.33
IKGPTU-27	24	-0.18	0.03
IKGPTU-28	26	1.82	3.33
IKGPTU-29	24	-0.18	0.03
IKGPTU-30	24	-0.18	0.03
KGPTU-31	27	2.82	7.98
KGPTU-32	40	15.82	250.41
IKGPTU-33	12	-12.18	148.25
IKGPTU-34	7	-17.18	295.00

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IKGPTU-35	28	3.82	14.63	
IKGPTU-36	26	1.82	3.33	
IKGPTU-37	24	-0.18	0.03	
IKGPTU-38	24	-0.18	0.03	
IKGPTU-39	24	-0.18	0.03	
IKGPTU-40	24	-0.18	0.03	
IKGPTU-41	24	-0.18	0.03	
IKGPTU-42	24	-0.18	0.03	
IKGPTU-43	26	1.82	3.33	
IKGPTU-44	24	-0.18	0.03	
IKGPTU-45	25	0.82	0.68	
IKGPTU-46	0	-24.18	584.46	
IKGPTU-47	24	-0.18	0.03	
IKGPTU-48	11	-13.18	173.60	
IKGPTU-49	24	-0.18	0.03	
IKGPTU-50	24	-0.18	0.03	
IKGPTU-51	26	1.82	3.33	
IKGPTU-52	7	-17.18	295.00	DON'T HE W
IKGPTU-53	32	7.82 snr		
IKGPTU-54	27	2.82	7.98	is dinner
IKGPTU-55	37	12.82	164.46	
IKGPTU-56	24	-0.18	0.03	
IKGPTU-57	24	-0.18	0.03	
IKGPTU-58	27	2.82	7.98	
IKGPTU-59	0	-24.18	584.46	
IKGPTU-60	24	-0.18	0.03	
IKGPTU-61	24	-0.18	0.03	
IKGPTU-62	27	2.82	7.98	
IKGPTU-63	25	0.82	0.68	
IKGPTU-64	28	3.82	14.63	
IKGPTU-65	0	-24.18	584.46	
IKGPTU-66	24	-0.18	0.03	
KGPTU-67	25	0.82	0.68	
KGPTU-68	26	1.82	3.33	
KGPTU-69	25	0.82	0.68	
KGPTU-70	30	5.82	33.92	
KGPTU-71	24	-0.18	0.03	
KGPTU-72	26	1.82	3.33	

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IKGPTU-73	34	9.82	96.52
IKGPTU-74	24	-0.18	0.03
TOTAL	1789		5606.72
No. of Stude	nts (N)	74	
Mean (μ) =T /No. of Stude	otal Marks obtained	24.18	
$ \sqrt{\frac{1}{N-1} \sum_{i=1}^{n} (X_i)} $	DEVIATION (σ) $-\mu$) ²	√5606.7 =8.76	2/73

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Study Scheme and Syllabus of

Master of Business Administration (MBA)

Batch 2018 onwards



Department of Academics

IK Gujral Punjab Technical University

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Courses & Examination Scheme:

First Semester

Course	Course Type	Course Title	Load	Alloca	tions	Marks D	istribution	Total	Credits
Code			L*	T*	Р	Internal	External	Marks	
MBA 101-18	Core Theory	Foundations of Management	4	0	0	40	60	100	4
MBA 102-18	Core Theory	Managerial Economics	4	0	0	40	60	100	4
MBA 103-18	Core Theory	Quantitative Techniques	4	0	0	40	60	100	4
MBA 104-18	Core Theory	Accounting for Management and Reporting	4	0	0	40	60	100	4
MBA 105-18	Core Theory	Business Environment and Indian Economy	4	0	0	40	60	100	4
MBA 106-18	Core Theory	Business Ethics and CSR	4	0	0	40	60	100	4
MBA 107-18	Core Theory	Business Communication for Managerial Effectiveness	4	0	0	40	60	100	4
	TOTAL		28	0	0	280	420	700	28

Second Semester

Course	Course Type	Course Title	Load	Alloca	tions	Marks D	istribution	Total	Credits
Code			L*	T*	P	Internal	External	Marks	
MBA 201-18	Core Theory	Business Analytics for Decision Making	4 -	0	0	40	60	100	4
MBA 202-18	Core Theory	Legal Environment for Business	4	0	0	40	60	100	4
MBA 203-18	Core Theory	Marketing Management	4	0	0	40	60	100	4
MBA 204-18	Core Theory	Human Resource Management	4	0	0	40	60	100	4
MBA 205-18	Core Theory	Production and Operations Management	4	0	0	40	60	100	4
MBA 206-18	Core Theory	Corporate Finance and Indian Financial System	4	0	0	40	60	100	4
MBA 207-18	Core Theory	Entrepreneurship and Project Management	4	0	0	40	60	100	4
MBAGE 201-18	General Elective	Computer Applications for Business	2	0	0	40	60	100	2
	TC	TAL	30	0	0	320	480	825	30

Note: After second semester every student will be required to undergo summer training of six weeks duration in the corporate sector.

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Third Semester

EI HVPE101-18 AI	Course Type	Course Title	Load	Alloc	ations		arks ibution	Total Marks	Credits
		一旦美俚李拉斯 。 发音	L*	T*	P	Internal			
MBA 301-18	Core Theory	Organizational Behaviour & Design	4	0	0	40	60	100	4
MBA 302-18	Core Theory	Marketing Research	4	0	0	40	60	100	4
	Elective	Major-I	4	0	0	40	60	100	4
	Elective	Major-II	4	0	0	40	60	100	4
	Elective	Minor-I	4	0	0	40	60	100	4
	Elective	Minor-II	4	0	0	40	60	100	4
HVPE101-18	Ability Enhancement Compulsory Course (AECC)	Human Values, De-addiction and Traffic Rules	3	0	0	40	60	100	3
HVPE 102-18		Human Values, De-addiction and Traffic Rules (Lab/ Seminar)	0	0	2	25	•	25	1
MBA 303-18	Core Theory	Seminar on Summer Training Report		2		50		50	2
		TOTAL	27	0	2	355	420	775	30

Note: Students will opt any two of the following groups (1 as Major and 1 as Minor).

List of Electives:

Group A: Marketing

Course Code	Course Type	Course Title	Load Allocations			Marks D	istribution	Marks	Credits
			L*	T*	P	Internal	External	Marks	
MBA 921-18	Elective	Consumer Behaviour	4	0	0	40	60	100	4
MBA 922-18	Elective	Services Marketing	4	0	0	40	60	100	4

Group B: Finance

Course Code	Course Type	Course Title	Load	Alloca	tions	Marks D	istribution	Total Marks	Credits
展 海拔			L*	T*	P	Internal	External		
MBA 911-18	Elective	Investment Analysis and Portfolio Management	4	0	0	40	60	100	4
MBA 912-18	Elective	Management of Financial Services	4	0	0	40	60	100	4

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Group C: Human Resource Management

Course	Course Course Type	Course Title	Load Allocations		Marks D	istribution	Total Marks	Credits	
Code			L*	T*	P	Internal	External		
MBA 931-18	Elective	Organizational Change and Development	4	0	0	40	60	100	4
MBA 932-18	Elective	Employee Relations	4	0	0	40	60	100	4

Group D: Management Information Systems

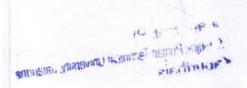
Course	Course Type	Course Title	Load	Alloca	tions	Marks D	istribution	Total Marks	Credits
Code		经工程等	L	Т	P	Internal	External		
MB 941-18	Elective	Data Mining for Business Decisions	4	0	0	40	60	100	4
MB 942-18	Elective	E-Commerce and Digital Markets	4	0	0	40	60	100	4

Fourth Semester

Course	Course Type	Course Title	Load	Alloca	tions	Marks D	istribution	Total Marks	Credits
Code			L*	T*	P	Internal	External		
MBA 401-18	Core Theory	Corporate Strategy	4	0	0	40	60	100	4
	Elective	Major-III	4	0	0	40	60	100	4
	Elective	Major-IV	4	0	0	40	60	100	4
	Elective	Major-V	4	0	0	40	60	100	4
	Elective	Major-VI	4	0	0	40	60	100	4
MBA 402-18	Project / Dissertation			4			100	100	4
MBA 403-18	Core Theory	Workshop on Indian Ethos	2	0	0	40	60	100	2
		TOTAL	22	0	4	240	360	600	26

Note: Four papers of any one group chosen in the $3^{\rm rd}$ Semester will be studied as electives of Major in the $4^{\rm th}$ semester.

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I.K.G. Punjab Technical University MBA Batch 2018 onwards <u>List of Electives:</u>

Group A: Marketing

Course Code	Course Type	Course Title	Load	Alloca	tions	Marks D	istribution	Total Marks	Credits
	Communication and Sales Management		L*	T*	Р	Internal	External		
MBA 923-18	Elective	Communication and Sales	4	0	0	40	60	100	4
MBA 924-18	Elective	Retail Management	4	0	0	40	60	100	4
MBA 925-18	Elective	International and Social Media Marketing	4	0	0	40	60	100	4
MBA 926-18	Elective	Product and Brand Management	4	0	- 0	40	60	100	4

Group B: Finance

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Course Code	Course Type	Course Title	Load Allocations			Marks Distribution		Total Marks	Credits
			L*	T*	Р	Internal	External		
MBA 913-18	Elective	Behavioural Finance	4	0	0	40	60	100	4
MBA 914-18	Elective	Mergers, Acquisition and Corporate Restructuring	4	0	0	40	60	100	4
MBA 915-18	Elective	International Finance and Financial Derivatives	4	0	0	40	60	100	4
MBA 916-18	Elective	Taxation and Personal Financial Planning	4	0	0	40	60	100	4

Group C: Human Resource Management

Course Code	Course Type	Course Title	Load Allocations			Marks Distribution		Total Marks	Credits
			L*	T*	P	Internal	External		
MBA 933-18	Elective	International Human Resource Management	4	0	0	40	60	100	4
MBA 934-18	Elective	Strategic HRM	4	0	0	40	60	100	4
MBA 935-18	Elective	Leadership and Team Dynamics	4	0	0	40	60	100	4
MBA 936-18	Elective	Performance and Compensation Management	4	0	0	40	60	100	4,

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Group D: Management Information Systems

Course Code	Course Type	Course Title	Load Allocations			Marks Distribution		Total Marks	Credits
			L	Т	P	Internal	External	, and a	
MB 943-18	Elective	Managing Software Projects	4	0	0	40	60	100	4
MB 944-18	Elective	Managing Digital Information and Transformation	4	0	0	40	60	100	4
MB 945-18	Elective	IT Consulting	4	0	0	40	60	100	4
MB 946-18	Elective	Strategic Management of IT	4	0	0	40	60	100	4

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Program Educational Objectives (PEOs)

PEO1: To inculcate knowledge in students with experiential learning and prepare the for advance study and life long learning.

PEO2: To develop strategic understanding of fundamental principles of business and competencies in the area of accounts, marketing, interpersonal skills, human resource management and entrepreneurship.

PEO3: To train the students for dynamic business environment and apply their perspectives through innovation and creativity.

PEO4: To develop competencies in qualitative and quantitative techniques to analyse the business data as well as developing an understanding of economic, legal and social environment of Indian business.

PEO5: To inculcate leadership skills, professionalism, effective communication skills, interpersonal skills and team work in students so as to enable them to manage and collaborate in diverse work environments.

PEO6: To develop responsiveness to social issues and ability to identify business solutions to address the same. Students will also be able to understand the issues of business ethics.

· - upo Punjac Technical University, calandre Program Outcomes (POs) Piralinus)

The program outcomes specify the knowledge, skills, values and attitudes students are expected to attain in courses or in a program. The six outcomes of MBA program are as below:

- 1. Business Environment and Domain Knowledge: Economic, legal and social environment of Indian business.. Graduates are able to improve their awareness sand knowledge about functioning of local and global business environment and society. This helps in recognizing the functioning of businesses, identifying potential business opportunities, evolvement of business enterprises and exploring the entrepreneurial opportunities.
- 2. Critical thinking, Business Analysis, Problem Solving and Innovative Solutions: Competencies in quantitative and qualitative techniques. Graduates are expected to develop skills on analysing the business data, application of relevant analysis, and problem solving in other functional areas such as marketing, business strategy and human resources.
- 3. Global Exposure and Cross-Cultural Understanding: Demonstrate a global outlook with the ability to identify aspects of the global business and Cross Cultural Understanding.
- 4. Social Responsiveness and Ethics: Developing responsiveness to contextual social issues / problems and exploring solutions, understanding business ethics and resolving ethical dilemmas. Graduates are expected to identify the contemporary social problems,

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exploring the opportunities for social entrepreneurship, designing business solutions and demonstrate ethical standards in organizational decision making. Demonstrate awareness of ethical issues and can distinguish ethical and unethical behaviors.

5. Effective Communication: Usage of various forms of business communication, supported by effective use of appropriate technology, logical reasoning, articulation of ideas. Graduates are expected to develop effective oral and written communication especially in business applications, with the use of appropriate technology (business presentations, digital communication, social network platforms and so on).

6. Leadership and Teamwork: Understanding leadership roles at various levels of the organization and leading teams. Graduates are expected to collaborate and lead teams across organizational boundaries and demonstrate leadership qualities, maximize the usage of diverse skills of team members in the related context.

(Source: Model Curriculum for Management programs (MBA) Janauary, 2018, AICTE, New Delhi. www.aicte.india.org)

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MBA 101-18

FOUNDATIONS OF MANAGEMENT

Objective: This course presents a thorough and systematic coverage of management theory and practice. The course aims at providing fundamental knowledge and exposure of the concepts, theories and practices in the field of management. It focuses on the basic roles, skills and functions of management, with special attention to managerial responsibility for effective and efficient achievement of goals.

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1: Describe fundamental concepts and principles and conventions of accounting.

CO2: Explain the role and responsibilities of managers and adapt to the various styles of management across organizations.

CO3: Develop analytical abilities to face the business situations.

CO4: Apply various tools that would facilitate the decision making process in the business.

CO5: Develop peer based learning and working in groups and teams.

CO6: To comprehend the application of various controlling techniques in management.

Unit I

Introduction: Definition, nature, scope, importance, Functions of management and manager, Managerial roles and skills.

Evolution of management thought and Management thinkers: Classical Approach, Neo Classical Approach, Quantitative approach, Behavioral approach, Systems approach, Contingency approach. Contributions of F. W. Taylor, Henry Fayol, Mary Parker Follet, Chester Bernard, Max Weber, Peter, F. Drucker, Gilbreths, Henry Gantt, Abraham Maslow, Herzberg and McGregor. SECTION OF "

Unit II

Planning: Importance, types of plans, and process of planning, business forecasting, MBO: Concept, importance, process, benefits and limitations.

Strategic management: Nature, importance, purpose, types, process and major kinds of strategies, McKinsey's 7-S Approach.

Decision-Making: Importance, types, steps and approaches, Decision Making in various conditions, Decision tree.

Unit III

Organizing: Concept and process of organizing, Formal Vs Informal organization, of Organizational structure, Organizational structure: Types Departmentalization. Line &Staff: concept, line-staff conflict.

Authority & Power: concept, responsibility and accountability. Delegation: concept, importance, factors affecting delegation, effective delegation, Span of Management,

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Decentralization and centralization, **Staffing**, importance and process. **Coordination**: Concept, importance, difficulties and techniques to ensure effective coordination.

Unit IV

Control: Concept, importance, characteristics, process of control, types and techniques of control.

Comparative study: Japanese Management and Z-culture of American Companies, Chinese Style Management,

Modern management techniques: an overview of various latest techniques: Business process Re-engineering, Business outsourcing, knowledge management, E-Business Management.

Note: Relevant Case Studies should be discussed in class.

Suggested Readings:

- Harold Koontz, and Heinz Weihrich, Essentials of Management: An International Perspective, New Delhi, McGraw-Hill, 2010.
- Richard L Daft, The New Era of Management, New Delhi, Thomson, 2007.
- Stephen P Robbins, Mary Coulter and Neharika Vohra, Managemnt, New Delhi, Pearson, 2011.
- · VSPRao & VH Krishna, Management, Excel Books
- P.Subba Rao, Principles of Management, Himalaya Publishing
- Dubrin, Management: Concepts & Cases, Cengage Learning
- · Ferrell, Business: A Changing World, Tata McGraw Hill
- Mukherjee, Principles of Management and Organisational behaviour, Tata McGraw Hill.
- · Bateman, T. S., and Snell, S. A. (2008). Management TMH

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MBA 102-18 Managerial Economics

Objective: The objective of the paper is to acquaint the students with the economic concepts and principles and to enable them to use them to address business problems in a globalized economic environment.

Course Outcomes: After completing this course,, students shall be able to:

CO1: Understand the basic concepts of economics and relate it with other disciplines and identify the importance of economics in managerial decision making.

CO2: Measure price elasticity of demand, understand the determinants of elasticity and apply the concepts of price, cross and income elasticity of demand.

CO3: Analyze the demand and supply conditions and assess the position of a company and explain the concepts of factors of production, collective bargaining and the underlying theories of factors of production.

CO4: Recognize the relationship between short-run and long-run costs and will also be able to establish the linkage between production function and cost function

CO5: Compare and contrast four basic types of market i.e. perfect, monopoly, monopolistic and oligopoly and can determine price and output under different market types.

CO6: Understand basic concepts of macroeconomics and shall be able to measure national income using different approaches.

Unit-I

Introduction to Managerial Economics: Managerial Economics: Meaning, Nature, Scope & Relationship with other disciplines, Role of managerial economics in decision Making, Opportunity Cost Principle, Production Possibility Curve, Incremental Concept, Scarcity Concept.

Demand: Demand and its Determination: Demand function; Determinants of demand; Demand elasticity – Price, Income and cross elasticity, Use of elasticity for analyzing demand, Demand estimation. **Demand forecasting,** Demand forecasting of new product. **Indifference Curve Analysis:** Meaning, Assumptions, Properties, Consumer Equilibrium, Importance of Indifference Analysis, Limitations of Indifference Theory.

Unit-II

Production Function: Production function Meaning, Concept of productivity and technology, Short Run and long run production function, Isoquants; Least cost combination of inputs, Producer's equilibrium; Returns to scale; Estimation of production function. **Theory of Cost:** Cost Concepts and Determinants of cost, short run and long run cost theory, Modern Theory of Cost, Relationship between cost and production function. **Revenue Curve:** Concept of Revenue, Different Types of Revenues, concept and shapes of Total Revenue, Average revenue and marginal revenue,

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Relationship between Total Revenue, Average revenue and marginal revenue, Elasticity of Demand and Revenue relation.

Unit-III

Market Structure: Meaning, Assumptions and Equilibrium of Perfect Competition, Monopoly, Monopolistic Competition, Oligopoly: Price and output determination under collusive oligopoly, Price and output determination under non-collusive oligopoly, Price leadership model. Supply: Introduction to supply and supply curves. Pricing: Pricing practices; Commodity Pricing: Economics of advertisement costs; Types of pricing practices. Factor Pricing: Demand and supply of factors of production; Collective bargaining, Concept of rent, profit, interest- Rate of return and interest rates; Real vs. Nominal interest rates. Basic capital theory—Interest rate and return on capital, Measurement of profit.

Unit-IV

Product market: Saving and Investment function, Consumption function, Aggregate supply and Aggregate demand, Investment multiplier, Foreign trade and budget multiplier. Money market: Motive for holding money; Liquidity preference, Money demand, Money market equilibrium. IS-LM Analysis: Derivation of nominal IS-LM and equilibrium. National Income: Conceptual Framework, Measures of National Income, Methods of Measurement, Limitations of National Income. Consumption Function: Meaning, and Nature, Determinants and Measures to Raise Propensity to Consume. Keynes Psychological Law of Consumption - Meaning, Properties and Implications, Inflation: Meaning, Types, Theories, Causes, Effects and Control, Unemployment Trade off, Trade Cycles: Concept and Theories of trade cycles.

Note: Relevant Case Studies will be discussed in class.

Suggested Readings/ Books:

- D. M. Mithani, Managerial Economics Theory and Applications, Himalaya Publication
- Peterson and Lewis, Managerial Economic, Prentice Hall of India
- Gupta, Managerial Economics, Tata McGraw Hills
- Geetika, Managerial Economics, Tata McGraw Hills
- Froeb, Managerial Economics, Cengage Learning
- Koutsoyiannis, A, Modern Micro Economics, Palgrave Macmillan Publishers, New Delhi, 2.
- Thomas Christopher R., and Maurice S. Charles, Managerial Economics Concepts and Applications, 8th Edition,
- Peterson and Lewis, Managerial Economics, 4th Edition, Prentice Hall of India Pvt. Ltd., New Delhi.
- Shapiro, Macro Economics, Galgotia Publications.
- H. L Ahuja Advanced Economic Analysis, S. Chand & Co. Ltd, New Delhi. 7.
- G.S Gupta, Managerial Economics, Tata McGraw Hill.
- · Goel Dean, Managerial Economics, Prentice Hall of India, Pvt. Ltd., New Delhi
- K.K. Dewett, Modern Economic Theory, S. Chand Publication

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MBA 103-18 QUANTITAIVE TECHNIQUES

Course Objective: The objective of this paper is to acquaint the students with quantitative and operations research techniques that play an important role in managerial decision-making.

CO1: To have a deeper and rigorous understanding of fundamental concepts in business decision making under subjective conditions.

CO2: To apply the concepts of central tendency and variation in managerial decision making.

CO3: To enhance knowledge in probability theory and normality and its distribution concepts.

CO4: To understand the concept of correlation regression analysis and their applications.

CO5: To apply the learnt techniques to build the best fit route of transportation for carrying schedule of activities.

CO6: To apply the operations techniques in reality to market scenario.

Unit I

Introduction to Statistics: Meaning, Definition in singular and plural sense, Features of statistics, Importance, Functions, Scope and Limitations of Statistics.

Measures of Central Tendency: Mathematical averages including arithmetic mean, geometric mean and harmonic mean, properties and applications. Positional Averages: Mode and median (and other partition values including quartiles, deciles and percentile. Graphic presentation of measures of central tendency.

Measures of Variation: Absolute and relative measures. Range, quartile deviation, mean deviation, standard deviation and their coefficients. Properties of Standard Deviation and Variance. Moments Concept, calculation and Significance. Skewness: Meaning, Measurement using Karl Pearson and Bowley Measures. Concept of Kurtosis.

Unit II

Simple Correlation Analysis: Meaning of Correlation:Simple ,multiple and partial,linear and non linear correlation, correlation and causation ,scatter diagram,pearson's correlation coefficient,calculation and properties of coefficient,Rark Correlation.

Simple Regression Analysis: Meaning of Regression, Principle of least square and regression analysis, Calculation of regression coefficient, properties of regression coefficient, Relationship between correlation and regression coefficientg.

Theory of Probability: Meaning of Probility, Approaches to the calculation of probabability.calculation of event probabbilities, Addition and Multiplication Laws of Probabbility (Proof not required), Conditional Probability and Bayes' Theorem (Proof not required).

Unit III

Probabability Distribution: Binomial Distribution, Poission Distribution and Normal Distribution with threir properties ad applications.

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Linear Programming; Formulation of linear programming problems. Solution by Graphic method and by using Simplex method algorithm including Big-M method. Business applications of LP. Degeneracy. Duality. Post-optimality analysis.

Game Theory: Two-person zero-sum games. Games of pure strategies and Games of mixed strategies. Rule of dominance. Graphic solution to games. Business applications.

Unit IV

Transportation: Transportation problem: Initial feasible solution using North-west Corner Rule; Least Cost Method; and Vogel's Approximation Method. Testing optimality using MODI method.

Assignment Problems: Assignment problem: Solution using Hungarian Assignment Method.

Project Scheduling: PERT/CPM: Project networks. Scheduling of projects with known activity times – Critical path and scheduling of activities.

Suggested Readings:

- · Levin, Richard and David S. Rubin. "Statistics for Management". 7th Edition,
- Prentice Hall of India, New Delhi.
- Render, B. and Stair, R. M. Jr., "Quantitative Analysis for Management", 7th Edition, Prentice-Hall of India, New Delhi.
- Siegel, Andrew F, Practical Business Statistics. International Edition, 5th Edition (2001), McGraw Hill Irwin.
- Berenson, L.M., Krehbiel, T.C., Vishwanathan, P.K. and Levine, D.M.,
 "Business Statistics: A First Course", 4th Edition (2008), Pearson Education.
- Anderson, David R., Dennis J. Sweeney and Thomas A., Williams, An Introduction to Management Science, South-Western.
- Taha, Hamdy A, Operations Research An Introduction, Prentice-Hall of India Private Ltd., New Delhi.
- Hillier, Frederick S. and Gerald J. Lieberman, Introduction to Operations Research, McGraw Hill India (Pvt) Ltd.
- Vohra, N.D., Quantitative Techniques in Management, McGraw Hill Education Private Limited, New Delhi.
- Sharma, J. K., Operations Research; Theory and Applications, Macmillan Indian, New Delhi.
- Winston, Wayne L., S. Christian Albright and Mark Broadle, Practical Management Science, Duxbury – Thompson learning, Australia.
- Gupta C B, Gupta V, "An Introduction to Statistical Methods", 23rd Edition (1995), Vikas Publications.

Note: Latest edition of the readings may be used.

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MBA 104-18 ACCOUNTING FOR MANAGEMENT AND REPORTING

Objective: This course aims to familiarize the students with various accounting concepts, tools and techniques and its application in managerial decision making. It also acquaints the students with the latest accounting practices and reporting standards.

Course Outcomes:

CO1 – To familiarize the students about the basic concepts, principles and process of accounting and to make them aware about the formats of financial statements of public limited, banking and insurance companies.

CO2 - To explain the students about the concepts of cost and various intricacies for preparing the cost sheet.

CO3 – To acquaint students about the decision making techniques using the concepts of marginal costing, standard costing and budgetary control.

CO4 – To enable the students to analyse financial statements using various tools for financial analyse and interpret the financial position of a business organization.

CO5 - To familiarize the students about the contemporary developments in the accounting.

CO6 – To make students aware about the recent developments in financial reporting and regulations so that they may understand and appreciate the concept and process of harmonization of financial reporting practices.

Unit I

Introduction to Accounting: Accounting as an information system, Accounting Process, concepts, convention and principles of Accounting, Role of accountant in an organization. Branches of accounting: Financial, Cost and Management Accounting and their inter-relationships, Exposure to format of schedule VI of Public Limited, Banking and Insurance Companies.

Unit II

Cost Accounting: Meaning, Objectives, Scope and Classification of costs, Preparation of Cost Sheet. Marginal Costing —Concept of Marginal Cost; Marginal Costing Vs Absorption Costing; Cost-Volume-Profit Analysis; Break-Even Analysis; Assumptions and its practical applications for managerial Decision making with special reference to pricing, make or buy decisions, selection of Sales-Mix.

Standard Costing: Introduction, Variance Analysis, types of Variances- Materials and Labour Variances. Budgetary Control- Types of Budgets Master budget Zero base budgeting, Fixed Budget and Flexible Budgets, Zero Base Budget, Participative Budget and Performance Budget.

Unit III

Financial Statement Analysis: Concepts and objectives, Tools of Financial Analysis: trend analysis, common size statements, comparative statements, Ratio analysis-Liquidity, solvency, profitability, turnover ratios, Cash flow statements and funds flow statements.

Unit IV

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Recent Developments in Accounting: Introduction to concept of Price Level Accounting, Human Resource Accounting, Transfer Pricing. Target Costing, Kaizen costing, Activity based costing, Life Cycle Costing.

Financial Reporting and Regulations: Meaning, objectives, principles and environment of financial reporting; Introduction to Accounting Standards issued by ICAI, US GAAPs, International Accounting Standards, IFRS, Applicability of various accounting standards, comparison and the process of harmonization.

Suggested Readings:

- Ahuja, N. L. and Dawar, V. 'Financial Accounting and Analysis' Taxmann Publishers
- Khan and Jain, 'Management Accounting', Tata McGraw.
- · J. Madegowda, 'Accounting for Managers', Himalaya Publishing.
- . 4. Horngren, Charles T., Gary L. Sundem and William O. Stratton, "Introduction to
- Management Accounting", Pearson Education Asia.
- · Ramchandran, 'Financial Accounting for Management', Tata McGraw
- · Jawahar Lal, 'Accounting for Management', Himalaya Publishing
- · Pandey, I.M, "Essentials of Management Accounting", Vikas Publishing House.
- Sehgal, A. and Sehgal, D., 'Advanced Accounting Financial Accounting I, Taxmann Publications
- Shukla, M.C. and Grewal, T.S. Advanced Accounts Vol. I & Vol. II, S. Chand and Co.
- Horngren, C. T., Sundem, G. L. and Stratton, W. O., 'Introduction to Management Accounting', Pearson Education
- · Elliott, B. and Elliott, J., 'Financial Accounting and Reporting', Pearson
- Gibson, C. H., 'Financial Reporting Analysis (Using Financial Accounting Information)', South-Western Publications
- · Christopher, N. and Parker, R., 'Comparative International Accounting', Prentice Hall
- Bhattachrya, S.K. and John Dearden, "Accounting for Management Text and Cases", Vikas Publishing House.
- Arora, M.N., "Cost Accounting Principles and Practice", Vikas Publishing House.

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I.K.G. Punjab Technical University MBA Batch 2018 onwards MBA 105-18 BUSINESS ENVIRONEMENT AND INDIAN ECONOMY

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Course Objective: This course aims at providing knowledge of the environment in which businesses operate, the economic, political, legal and social framework with a basic idea of the Indian Economy.

Course Outcomes: At the end of the course, student should be able to

CO 1: Outline how an entity operates in a complex business environment.

CO 2: To systematically learn impact of legal & regulatory, macroeconomic, cultural, political, technological, global and natural environment on Business enterprise.

CO 3: To examine the critical opportunities and threats that arise from an analysis of external business conditions by applying scenario planning to synthesize trends prevailing in the external environment.

CO 4: To describe how various types of economic systems play a significant role in the success of a business.

CO 5: To understand the nature of Indian Economy and various issues relating to Indian Economy having a direct or indirect impact on business environment.

CO6: To discuss various development strategies in India.

UNITI

Business Environment: Meaning, Types: Internal Environment; External Environment; Micro and Macro Environment, Components of Business Environment. Political Environment: Three political institutions: Legislature, Executive and Judiciary, Fundamental rights, Directive Principles, Rationale and extent of state intervention. Economic Environment: Concept, features of various economic systems, New Industrial policy and industrial licensing, new economic policies, aspects of economic reforms and their effects on business and emerging economies. Effect of recession on Business and remedies for that, Economic Planning in India: Objectives, Strategies and Evaluation of current five year plan, Monetary and Fiscal Policy.

UNIT II

Legal Environment: Company Regulatory Legislations in India, FEMA, EXIM policy, Competition Law, Right to Information Act 2005.

Public Sector in India: Concepts, Philosophy and Objectives, Performance, Problems and Constraints. Disinvestment and Privatisation, Joint sector and Cooperative sector in India, Deficit Financing and its implications for the Indian Economy; Analysis of current year Annual Budget.

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Consumerism: Role of Consumer Groups with Special Reference to India; Consumer Protection Act, 1986 with Latest Amendments.

Ecological Environment: Concepts of Green Management, Global Warming, Carbon Foot Printing, The Environment Protection Act 1986.

UNIT III

Technological Environment: Impact of Technology on Business, Technological Policy, Intellectual Property Rights, Import of Technology, Appropriate Technology, Problems in Technology Transfer.

International Environment: Emergence of Globalisation, Control of Foreign Direct Investment, Benefits and Problems from MNCs. WTO, its role and functions, Implications for India. Trading Blocks, Foreign Trade: SEZ (Special Economic Zones), EPZ (Export processing zone), EOU (Export Oriented Units), Dumping and Anti-Dumping measures.

Introduction to Indian Economy: Colonialism and Development of Indian Economy, Framework of Indian Economy, Demographic Features and Indicators of Economic Growth and Development, Rural-Urban Migration and issues related to Urbanization, Poverty debate and Inequality, Nature, Policy and Implications.

Unit IV

Unemployment-Nature, Central and State Government's policies, policy implications, Employment trends in Organized and Unorganized Sector

Development Strategies in India: Agricultural- Pricing, Marketing and Financing of Primary Sector, Changing structure of India's Foreign Trade. The Economic Policy and Infrastructure Development: Energy and Transport, Social Infrastructure- Education, Health and Gender related issues, Social Inclusion, Issues and policies in Financing Infrastructure Development.

Suggested Readings:

- Paul Justin, Business Environment, Latest Edition, McGraw Hill Education, New Delhi.
- V.K. Puri & S.K. Misra, Economic Environment of Business, Latest Edition, Himalaya Publishing House, New Delhi.
- A.C. Fernando, Business Environment, Latest Edition, Pearson Publication, New Delhi.
- V. Neelamegam, Business Environment, Latest Edition, Vrinida Publications, Delhi.
- Francis Cherunilam, Business Environment, Latest Edition, Himalaya Publishing House, New Delhi.
- K. Aswathappa, Essentials of Business Environment, Latest Edition, Himalaya Publishing House, New Delhi.
- Govt. of India, Five Years Plan Documents.

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MBA 106-18

BUSINESS ETHICS AND CORPORATE SOCIAL RESPONSIBILITY

Objective: This Paper introduces students to the relationship between business and ethics, and tries them to understand how ethical principles could influence management decisions. It also signifies the concept of CSR and its implications on business.

Course Outcomes: At the end of the course, the student will be able to:

CO1: To integrate and apply contemporary Ethics & Governance issues in a business context

CO2: To analyse and apply ethics to contemporary business practices.

CO3: To analyse key perspectives on corporate social responsibility and their application.

CO4: To evaluate different corporate ownership structures and their key governance features.

CO5: To understand the ethical decision making, ethical reasoning, the dilemma resolution process.

CO6: To analyse and apply corporate governance perspectives to contemporary business practices.

Unit I

Business Ethics: Characteristics, Principles, Types, Importance, Factors highlighting the importance of Business Ethics, Myths about Business Ethics. Ethical Values, Theories of Ethics, Absolutism verses Relativism, Teleological approach, the Deontological approach, Kohlberg's six stages of moral development (CMD), Code of Ethics.

Business Ethics and Social Responsibilities of the firm - relationship of the firms with customers, competitors, stockholders, dealers and suppliers. Ethics v/s Ethos, Indian v/s Western Management, Globalisation and Business Ethics, Emerging issues of Business Ethics.

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Unit II

Ethical Dilemma; Characteristics, ethical decision making, ethical reasoning, the dilemma resolution process.

Ethical Considerations in Marketing, Ethics in Accounting and Finance, Ethical Implications at Top Level. Ethical considerations in Human Resource Management, Environmental Ethics.

Note: Relevant Case Studies regarding ethical issues in Marketing, HRM, Accounting and Finance and Environment Management should be discussed in the class.

Unit III

Corporate Social Responsibility: Concept, Definition, Need, Arguments in favour of and against CSR. Historical Phases of Corporate Social Responsibility, Perspectives of CSR. Models of CSR, Drivers of CSR, Corporate Governance, Business Ethics and CSR. Corporate Social Responsibility and Corporate Sustainability: Meaning, Need and importance of Sustainability, Sustainability Case Studies-Triple Bottom Line (TBL).

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Corporate Sustainability Reporting Frameworks- Global Reporting Initiative Guidelines, National Voluntary Guidelines on Social, Environmental and Economic Responsibilities of Business.

Unit IV

Corporate Social Responsibility within the organisation, CSR and Society, Strategic Planning and CSR, Environmental Aspects of CSR, CSR under the Companies Act, 2013, CSR Practices in India, Case Studies of Major CSR Initiatives. Corporate Governance: Introduction, Need, Models.

References:

- Fernando, A. C. (2010). Business Ethics and corporate governance. Pearson Education.
- Velasuez, M. G. (2011). Business Ethics: Concepts and Cases.. PHI Learning.
- Gosh, B. N. (2009). Business Ethics and Corporate Governance. Tata McGraw Hill. T
- Thomas M. Garrett Business Ethics The times of India Press Bombay.
- Peter Pratley The essence of Business Ethics prentice Hall of India (P) Ltd., New Delhi.
- Chackraborty S.K. Ethics in Management Vedantic Perspectives Oxford University Press, Delhi.

· Keith Davis Business and Society Mc Graw Hill.

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MBA 107-18

BUSINESS COMMUNICATION FOR MANAGERIAL EFFECTIVENESS

Objective: This course presents communication as integral to management and as a critical component for success in the workplace. The students will develop a foundation for designing effective messages, both written and oral, from concept to delivery. They will use various communication models to identify objectives, analyze audiences, choose information, and create the most effective arrangement and channel for that message. Particularly, the course emphasizes elements of persuasive communication: how to design messages for diverse and possibly resistant audiences and how to present that information in a credible and convincing way.

Specifically, students will practice drafting and editing clear, precise, and readable written business documents as well as learn to design documents to make information easily accessible to a busy, executive-level reader. In addition, they will develop and deliver an individual presentation, using appropriate and effective visual support, in which they will present a persuasive argument that demonstrates relevance and benefits to an audience at different levels of expertise or interest and will learn and practice group communication.

Course Outcome:

Course Outcomes: At the end of the course, the student will be able to:

CO1 - To understand the basics of communication and its process, and the various barriers in the communication.

CO2 - To learn the listening skills and comprehend the value of business etiquettes

CO3- To comprehend Non - Verbal communication skills and its application for effective Communication.

CO4 - To learn the skills of writing effective business messages, letters and reports

CO5- To develop the presentation skills and learning to organize and structure a Presentation using visual aids

THE PURISO SCHOOL UNIVERSITY WILL CO6 - To prepare the students for interview, employment messages and resume writing skills

UNIT-1

Understanding the Foundations of Business Communication: Business Communication concept, Communication Models, Communication Process, Characteristics of effective business communication, Barriers in communication environment, Communication and Ethics, Cross Cultural Communication;

Guidelines for successful collaborative writing, Social networking technologies in business communication, Importance of listening, business etiquette & nonverbal Communication

UNIT - II



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The Three-Step Writing Process: Importance of analyzing the situation before writing a message, Information-gathering options, Information organization, Writing Business Communication: Adapting to your audience, Crafting brief messages, Crafting messages for electronic media, Writing routine and positive messages, Writing negative messages; Planning, Writing, and Completing Reports and Proposal and Emails.

UNIT-III

Designing and Delivering Oral and Online Presentations: Developing oral and online presentations, Enhancing presentations with slides and other visual aids, Just-A-Minute Presentation, Individual/Group Presentations, Feedback and overcoming Glossophobia, Group discussion.

UNIT-IV

Writing Employment Messages and Interviewing for Jobs: Employment strategy, Planning, writing and completing your resume, Applying and Interviewing for Employment: Understanding, preparing and follow-up, Role Play and Simulation games – Employer - employee and Interviewer – interviewee relationship.

Suggested Readings:

- Penrose/Rasberry/Myers Business Communication for Managers (5th edition) Cengage Learning.
- Courtland/John/Roshan Business Communication Today (13th edition)
 Pearson
- · Rizvi Effective Technical Communication Tata Mcgraw Hills
- Raymond/Marje/Kathryn/Neerja Business Communication Tata Mcgraw Hills

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MBA 201-18

Business Analytics for Decision Making

Course Objective: The course aims at equipping students with an understanding of the research process, tools and techniques in order to facilitate managerial decision making.

Course Outcomes: At the end of the course, the student will be able to:

CO1: To have a deeper and rigorous understanding of fundamental concepts in business decision making under subjective conditions

CO2: To enhance knowledge in probability theory and normality and its distribution concepts

CO3: To conduct research surveys through multiple regression and multiple correlation

CO4: To design a good quantitative purpose statement and good quantitative research questions and hypotheses

CO5: To know the various types of quantitative sampling techniques and conditions to

CO6: To utilize the time series method to predict the future of sales in a concern.

Unit I

Introduction to Statistics: Meaning, Importance, Applications of inferential statistics in managerial decision making. Collection of Data: concept of primary data and secondary data, sources of primary data and secondary data, Classification and Tabulation of Data: Concept and types of classification, construction of frequency distributions, tabulation of data: role of tabulation, parts of table, rules of tabulation, review of table, types of table.

Sampling: Concept, definitions, census and sampling, probability and non probability methods of sampling, relationship between sample size and errors.

Unit II

Sampling Distributions: Concept and standard error.

Hypothesis Testing: Formulation of hypothesis, procedure of hypothesis testing, errors in testing of hypothesis, tests of significance for large samples, tests of significance for small samples, application of t-test, Z-test, F-test and Chi-square test and Goodness of fit, ANOVA.

Techniques of association of attributes.

Unit III

Business Forecasting: Introduction, Role of forecasting in business, Steps in forecasting and methods of forecasting.

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Correlation: Partial and Multiple correlation.

Regression Analysis: Multiple regression analysis, Testing the assumptions of regression: multicolinearity, heteroscedasticity and autocorrelation.

Unit IV

Index Number: Definition, importance of index number in managerial decision making, methods of construction, tests of consistency, base shifting, splicing and deflation, problems in construction.

Time Series Analysis: Meaning, component and, methods of time series analysis. Trend analysis: Least square method, linear and non linear equations, applications of time series in business decision making.

Suggested Readings:

- Levins, Krehbiel, Business Statistics, Pearson Berenson
- Levin & Rubin, Statistics for Management, Prentice Hall
- . S P Gupta, Statistical Methods, Sultan Chand
- . Beri, Business Statistics, Tata Mc Graw Hill
- Croucher, Statistics: Making Business Decisions, Tata McGraw Hill
- C.R. Reddy, Quantitative Techniques for Management Decisions, Himalaya Publishing
- Anderson Statistics for Business & Economics, Cengage Learning
- · Levin, Richard and David S. Rubin. "Statistics for Management". 7th Edition,
- Prentice Hall of India, New Delhi.
- Render, B. and Stair, R. M. Jr., "Quantitative Analysis for Management", 7th Edition, Prentice—Hall of India, New Delhi.
- Siegel, Andrew F, Practical Business Statistics. International Edition, 5th Edition (2001), McGraw Hill Irwin.
- Berenson, L.M., Krehbiel, T.C., Vishwanathan, P.K. and Levine, D.M.,
 "Business Statistics: A First Course", 4th Edition (2008), Pearson Education.

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MBA 202-18 Legal Environment for Business

Course Objective: The objective of this paper is to give an exposure to students about important commercial, corporate and taxation laws, so that they are able to relate the impact of these legal enactments on business in an integrated manner.

Course Outcomes: Following are the expected outcomes of the course:

- 1. Students shall be able to understand the legal and regulatory framework of business environment.
- 2. Students shall be able to identify the fundamental legal principles behind contractual agreements.
- 3. Students shall be able to understand the legal provisions of sales of goods.
- 4. Students shall be able to understand the concept of negotiable instruments as well as rules pertaining to crossing, transferring and dishonouring of negotiable instruments.
- 5. Students shall have understanding of legal rules governing admission, retirement and death of partner and dissolution of partnership firm.
- **6.** Students shall be able to understand the legal framework relating to the process of incorporation of Joint Stock Company

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UNIT-I

Introduction to Business Laws:- Business Management and Jurisprudence; Structure of the Indian Legal Systems: sources of Law. Law of Contract: Definition, features of a valid contract, offer and Acceptance, Consideration, Capacity of parties, Free consent, Legality of Object, Performance and Discharge of Contract, breach of a contract and its remedies. Meaning and types of agents. Special Contracts-Laws of Agency; Principal-Agent Problem-Bailment, Pledge, Guarantee and Indemnity.

UNIT-II

Sales of Goods Act- Principles of Sales of Goods- Transfer of Ownership& Property-Performance of contract.

Unit III

Partnership Act: Introduction to Partnership Act, admission of partner, retirement and death of partner, dissolution of partnership firm.

Negotiable Instrument: Bills of Exchange, Promissory Note, Cheque and Rules Regarding the Crossing of Cheques, Dishonour of cheques and liability of banker and drawer.

UNIT-IV

I.K.G. Punjab Technical University MBA Batch 2018 onwards

Company law: Definition and features of company; concept of corporate veil; distinction between company and partnership firm; type of companies, Process of formation and incorporation of Company, Memorandum of Association and Articles of Association, Definition, qualification, rights, duties and position of Directors, Constitution of Board of Directors, Chairman of Board, independent and executive directors, Introduction to meetings and resolution.

SUGGESTED READINGS:

1. Bansal, C. L. 'Business Laws' Taxmann Publishers (Edition-2011)

 Kuchhal, M. C. and Kuchhal, Vivek-'Business Legislations for Management' Vikas Publications (4th Edition 2014).

3. Maheshwari,S.N. and Maheshwari,S.K.-A Manual of Business Laws- Himalya Publishing House Pvt. Ltd. (7th Edition-2018)

4. Singhania, V. and K., Singhania, K. and Singhania, M. 'Direct Taxes – Law & Practice', Taxmann's Publication, Pvt. Ltd.(60th Edition 2018-19)

 Swain, Dr. Anil Kumar and Agrawal, Mr. Gopal Prasad, GST Concepts and Applications, Himalya Publishing House Pvt. Ltd. (1st Edition-2018)

 Tulsian, P.C. and Tulsian, Bharat, Business Laws, McGraw Hills Education, (3rdEdition-2014)

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I.K.G. Punjab Technical University MBA Batch 2018 onwards MBA 203-18 Marketing Management



Course Objective: The course aims at making students understand concepts, philosophies, processes and techniques of managing the marketing operations of a firm in turbulent business environment. This course will provide better understanding of the complexities associated with marketing functions, strategies and provides students with the opportunity to apply the key concepts to practical business situations.

Course Outcomes: At the end of the course, the student will be able to:

CO1 - To learn the basics of marketing, selling, marketing mix and its core concepts.

CO2 – To understand the intricacies of the marketing environment and marketing information systems for effective marketing planning and strategies.

CO3- To equip the students with necessary skills for effective market segmentation, targeting and positioning

CO4 – To prepare the students for understanding the various components of product mix, product life cycle and comprehend the new product development process.

CO5- To develop an understanding of promotion mix and strategies for successful promotion

CO6 - To gain knowledge about the emerging trends in marketing and pyramid marketing.

Unit-I

Understanding Marketing and Consumers: Introduction to Marketing Management.

Definition, Importance, Scope, Basic Marketing Concepts, Marketing Mix, Marketing vs Selling, Customer Value, techniques and relevance. Marketing Environment and Competition: Analyzing Marketing Environment-Micro, Macro, Impact of environment on marketing. Corporate Strategic Planning: Defining role of marketing strategies, marketing planning process. Marketing Information System: Concept, and Components. Consumer Behaviour: Consumer buying process, Factors Influencing Consumer Buying Behaviour,

Unit-II

Market Segmentation & Targeting: Product differentiation, Positioning for competitive advantage, Product Decisions: Product Mix, Packaging and Labelling Decisions, Branding, Brand value & Brand Equity. New Product Development, Consumer Adoption Process, Product Life Cycle and marketing mix strategies. Services Marketing and 7Ps framework. Pricing Decisions: Objectives, Factors Affecting Pricing Decisions, Pricing Methods, Price Changes, Pricing Strategies.

Unit-III

Delivering and Promoting Product: Supply Chain Decisions Nature, Types, Channel Design and Channel Management Decisions, Retailing, Wholesaling, **Personal Selling**: Personal Selling Process, Managing the Sales Force. **Promotion Mix**: Advertising, Sales



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Promotion, Public Relations. **Emerging Trends in Marketing**: Green Marketing, Event Marketing, Network Marketing, Social Marketing, Buzz Marketing/ Viral Marketing, Customer Relationship Management (CRM), Global Marketing, Rural Marketing, E-Commerce: Marketing In The Digital Age.

Unit -IV

Bottom of Pyramid Marketing: Understanding poverty and the Base of the Pyramid, understanding the BoP consumer: their basic needs wants and demands, Design-Develop-Distribute approach towards BoP. Consumption and marketing practices in BoP contexts: few challenges-The institutional context of BoP markets.-Conducting Marketing Research in BoP Markets-BoP Consumers and Producers-Producers and Entrepreneurs at the BoP. Concept of Informal Economy-Alternative Market initiatives at BoP-Ethical issues associated with BoP.

Suggested Readings:

- · Kotler & Koshy, Marketing Management, Pearsons Education
- · Ramaswamy & Namakumari, Marketing Management, McMillian.
- McMEtzel, Walker, Stanton, and Pandit, Marketing Management, Tata McGraw Hill
- Kurtz & Boone, Principles of Marketing, Cengage Learning
- Kotler & Armstrong, Principles of Marketing, Prentice Hall
- Biplab S. Bose, Marketing Management, Himalaya Publications
- · Subhash c. Jain, Marketing Management, Cengage Learning
- Rajan Saxena,, Marketing Management, Tata McGraw Hill.

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MBA 204-18

Human Resource Management

Course Objective: The objective of the paper is to make student aware of the various functions and importance of HR department in any organization. It is basically concerned with managing the human resources, whereby the underlying objective is to attract retain and motivate the human resources in any organization.

Course Outcomes: At the end of the course, the student will be able to:

CO1- To explain the basics of Human Resource Management and analyse the evolution of HRM.

CO2- To comprehend the environment of HRM.

CO3: To appraise various functions of HRM that facilitate employee hiring viz. human resource planning, job analysis recruitment and selection.

CO4: To understand the role of training, development, career planning and performance appraisal functions in human resource development.

CO5: To examine the provisions of employee health, safety and welfare.

CO6: To analyse the concerns of government, employees and employers in establishing Industrial relations.

CO7: To illustrate mechanisms adopted by the organizations for settlement of disputes and grievances

Unit I

Human Resource Management (HRM): Nature, Scope, Objectives and functions of HRM. Evolution of HRM, HR as a factor of competitive advantage. Organization of HR department, Line ad staff responsibility of HR managers, competencies of HR Manager. Personnel Policies and Principles. Strategic HRM: Introduction, Integrating HR strategy with Business Strategy, Difference between SHRM and HRM. HRM Environment and Environment Scanning. Human Resource Planning: Meaning, Process and importance, factors affecting Human Resource Planning. Job Analysis:

Process, methods of Job Description & Job Specification.

Unit 2

Recruitment & Selection: Meaning & Concept, Process & Methods Recruitment & Selection, Induction & Placement. Training & Development: Meaning & Concept of Training & Development, Methods of Training & Development, Evaluating training effectiveness. HRM vs. HRD. Career Planning & Development: concept of career, career planning, career development, process of career planning and development, factors affecting career choices, responsibilities of Employers / managers, organization and employees in career planning and development, career counseling. Internal Mobility: Promotion, Transfer, Demotion, Separation, downsizing and outplacement.

Unit 3

Performance Appraisal: Meaning & Concept of Performance Appraisal, Methods & Process of Performance Appraisal, Issues in Performance Appraisal, Potential Appraisal. Compensation Management- Concept and elements of compensation, Job evaluation, Wage / Salary fixation, Incentives Plans & Fringe Benefits. Quality of work life (QWL): Meaning, Concept, Techniques to improve QWL. Health, Safety & Employee

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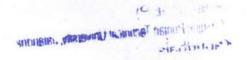
Welfare, Social Security. Quality Circles: Concept, Structure, Role of Management, QCs in India.

Unit 4

Industrial Relations: Government's concerns, Union's concerns, Management concerns; Approaches of IR; Dispute Resolution Machinery. Collective Bargaining: Meaning, Scope, Objectives, Issues and Strategies, steps of collective bargaining, negotiation skills. Participative Management, Grievance Handling, Disciplining and Counseling of employees, HRIS, HR Audit. Ethical Issues in HRM. Human Resource Management practices in India.

Suggested Readings:

- Dessler, Gary, "Human Resource Management", New Delhi, Pearson Education Asia. 2017 15th Edition
- Aswathappa, K., Human Resource Management, Text and Cases (7th ed.). Mc Graw Hill.
- Flippo, E. Human Resource Management (5th ed.). McGraw Hill.
- Ivancevich, J. Human Resource Management (12th ed.). Tata Mc Graw Hill.
- Gomez Mejia, L. Managing Human Resources (8th ed.). Pearson Education.
- Bratton, J. and Gold, J. Human Resource Management: Theory and Practice (6th ed.). Palgrave.
- Mirza S, Saiyadain, Human Resources Management (4th ed.). Tata McGraw Hill.
- Dale Yoder, Personal Management & Industrial Relations, Tata McGraw Hill





MBA 205-18

Production & Operations Management

Course Objective: It is a subject where a student learns various steps of product design, development, production, plant location, storage, production planning and control. The students are motivated to apply concepts and principles of management to become more effective professional

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1: Understand ever growing importance of Production and Operations management in uncertain business environment.

CO2: Gain an in-depth understanding of resource utilization of an organization.

CO3: Appreciate the unique challenges faced by firms in services and manufacturing.

CO4: Understand the subject as a crucial part of functional management.

CO5: Develop skills to operate competitively in the current business scenario.

CO6: Understand the concepts of inventory and purchasing management.

Unit- I

Operations management: concept, functions, transformation process model: inputs, process and outputs; classification of operations; responsibilities of operations manager, contribution of Henryford, Deming, Crossby, Taguchi.

Facility Location – importance, factors in location analysis, location analysis techniques. Product Design and Development – product design and its characteristics, product development process (technical), product development techniques. Process selection- project, job, batch, mass and process types of production systems. operations management in corporate profitability and competitiveness

Unit-II

Facility Layout – Objectives, Advantages, Basic Types of Layouts, Problems in facility layout. **Production Planning & Control (PPC):** –Concepts, Objectives, and Functions, work study – Productivity: Method study; Work measurement. **Capacity Planning** – Concepts, Factors affecting Capacity Planning, Capacity Planning Decisions.

Unit- III

Quality Management: Introduction, Meaning, Quality Characteristics of Goods and Services, Juran's Quality Trilogy, Deming's 14 principles, Tools and Techniques for Quality Improvement, Statistical Process Control Chart, Quality Assurance, Total Quality Management (TQM) Model Concept of Six Sigma and its Application.

Acceptance Sampling – Meaning, Objectives, Single Sample, Double Sample and Multiple Sample Plans with sated risk, Control charts for variables – Averages and Ranges, Control Charts for Defectives – Fraction Defective and Numbers Defective.

Unit- IV

JIT and Lean Production System: JIT Approach, Implementation requirements, Services, Kanban System. Inventory Management: Concepts, Classification, Objectives, Factors affecting Inventory Control Policy, Inventory Costs, Basic EOQ Model, Re-order level, ABC analysis. Logistics and Franchising. Purchasing Management – Objectives, Functions, Methods, Procedure.

Value Analysis: Concepts, Stock Control Systems, Virtual Factory Concept and Production Worksheets.

Note: Relevant Case Studies should be discussed in class.

Suggested Readings / Books:

- Mahadevan B, Operations Management: Theory and Practice (2nd Ed.).
 Pearson Education
- Krajewski & Ritzman, Operations Management (5th Ed.) Pearson Education
- Buffa & Sarin, Modern Production/Operations Management, (8th Ed.) John Wiley
- · Chary, Production and Operations Management, Tata McGraw-Hill
- Johnston R et al, Cases in Operations Management, Pitman
- · McGregor D, Operations Management, McGraw-Hill

• Nair, Production & Operations Management. Tata McGraw

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MBA 206-18

Corporate Finance and Indian Financial System

Course Objective: To provide an in-depth understanding of the core finance functions and decisions in the area of corporate financial management. Further provide a practical and problem insight for effective financial decision-making.

Course Outcomes: After completing the course, the students shall be able to:

CO1- To explain the evolution, objectives and functions of corporate finance and interface of corporate finance with other functional areas.

CO2- To illustrate the concept of time values of money and valuation of securities.

CO3: To comprehend the significance of capital structure theories in capital structure decisions.

CO4: To understand the applications of approaches of working capital management.

CO5: To be able to describe the role of various financial institutions on Indian financial system.

CO6: To discuss the evolution of financial markets and various financial instruments.

Unit-I

Introduction to Financial Management and Corporate Finance: Meaning, nature, evolution, objectives, functions and scope of corporate finance. Interface of financial management with other functional areas, environment of corporate finance, functions and role of financial manager.

Time Value of Money-Introduction, types of cash flows, future value of single cash flow, multiple flows and Annuity.

Valuation of Securities: Concept of Valuation, Methods for valuation of equity, debt and hybrid securities.

Unit-II

Capital Structure Decision-Capital Structure Theories: Meaning and features of capital structure decision, Net Income Approach, Net Operating Income Approach, Traditional Approach, Modigliani-Miller Hypotheses with special reference to the process of arbitrage and Agency Cost.

Capital Budgeting Decision: Nature of investment decisions; process of capital budgeting, investment evaluation criteria: Discounted and Non-Discounted Methods (Pay-Back Period, Average rate of return, Net Present Value, Benefit Cost Ratio and Internal Rate of Return). Risk analysis in capital budgeting and Capital rationing.

Unit-III

Dividend Decision-: Issues in dividend decisions. forms of dividend, theories of relevance and irrelevance of dividends.

Management of Working Capital: Meaning, nature, objectives and Approaches of Working Capital (Conservative, Matching and Aggressive approaches), Static vs. Dynamic View of Working Capital. Factors determining the amount and composition of Working Capital .Methods for financing of working capital.

Unit-IV

Introduction to Financial System: Overview, evolution of Indian financial system. Structure and functions of Indian financial system. Financial sector reforms-major reforms in the last decade. Financial Institutions: Introduction to Reserve Bank of India, Securities and Exchange Board of India, Insurance Regulatory and Development

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Authority of India, Introduction to commercial banks, co-operative banks, NBFCs, insurance companies, mutual funds, stock exchanges, commodity exchanges, and Depositories.

Financial Markets: Introduction, evolution, capital market and money market, functions and operations of primary market and secondary market. **Financial Instruments**: Shares, Debentures, Bonds, Money Market Instruments, Derivatives, Global Depository Receipts, Foreign Currency Convertible Bonds

Suggested Readings:

- Pandey, I. M. (2015). Financial Management, 11th Edition. Vikas Publishing House.
- 2. Khan, MY. and Jain, PK. (2014). Financial Management, 7th Edition. Tata McGraw Hill, New Delhi.
- 3. Chandra, Prasanna. (2015).Financial Management: Theory and Practice, 9th Edition. Tata McGraw Hill, Delhi.
- Van Horne. J.C. and J.M. Wachowicz. (2015). Fundamentals of Financial Management, 13th Edition. Prentice Hall, Delhi.
- Brealey, Richard A; Stewart, C. Myers and Allen, F. (2017). Principles of Corporate Finance, 11th Edition. McGraw Hill, New York.
- Bhole, L. M. (2017). Financial Institutions and Markets, 6th Edition. McGraw Hill.
- 7. Srivastava, R. M and Divya, N. (2014). Management of Indian Financial Institutions, 9th Edition. Himalaya Publishing House.
- Varshney, P. N. and Mittal, DK. (2010). Indian Financial System, 11th Edition. Sultan Chand & Sons.

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MBA 207-18

Entrepreneurship Development and Project Management

Course Objective: To provide a comprehensive understanding of the concept of an Entrepreneur and intricacies involved in managing entrepreneurial projects. The prime aim is to imbibe the necessary entrepreneurial competencies among students and motivate them choose Entrepreneurship as a feasible and desirable career option.

Course Outcomes: After completing the course, the students shall be able to:

CO1- To explain the characteristics, functions and traits of an entrepreneur.

CO2- To illustrate the concept of corporate entrepreneurship and development of the same in the organizations.

CO3: To comprehend the significance of women entrepreneurs, rural entrepreneurship and social entrepreneurship.

CO4: To examine entrepreneurial strategies to explore new entry opportunities, methods of enhancing creativity and generation of ideas.

CO5: To be able to develop an effective business plan.

CO6: To explain the basic concepts of project management and analyse different phases of project management viz. generation and screening of project ideas, project analysis, selection, financing, implantation and review.

Unit I

Introduction to Entrepreneur: Concept, Characteristics, functions of an entrepreneur, Entrepreneur Vs Manager, Types of entrepreneur, Entrepreneurial Mind Set, Key attributes of an entrepreneur, desirable and acquirable traits and behaviours, Readiness of the entrepreneur: Right age, right time and right conditions, Myths and Realities of entrepreneurship. Entrepreneurship and Intrapreneurship: Similarities and variance, Developing Corporate Entrepreneurship.

Women entrepreneurs:-Meaning, role, problems for women entrepreneurs, Rural entrepreneurship, social entrepreneurship, Entrepreneurship Development, Entrepreneurial support systems and role of government in Entrepreneurship Development..

Unit II

Entrepreneurial Motivation: Concept and Theories, Entrepreneurial Strategy: Generating and Exploiting New Entry Opportunities, Generation of new Entry Opportunity, entry Strategy, Risk reduction strategies for New Entry Exploitation Creativity and Business Idea Generation: Concept of creativity, ideas from trend, analysis, sources of new ideas, Methods of generating new ideas, Creative problem solving, creativity and entrepreneurship. Entrepreneurial Innovation: Concept and types, Opportunity Recognition and opportunity assessment plan, product planning and development process..

Unit III

Protecting Ideas and Legal issues for the entrepreneur. Concept of IPR, Patents, Trademarks, Copyrights, Licensing, Product Safety, Other Legal Issues in Setting Up An Organisation. Business Plan Creating and Starting the Venture: Concept of Business Plan, Scope and Value, Writing the business plan, Using and implementing business plan. Succession Planning and Strategies for Harvesting and Ending Venture: Exit Strategy, succession of Business, Selling off, bankruptcy

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Reasons of failure of business plan, Reasons for the failure of entrepreneurial ventures.

Unit IV

Project Management: Concept, facets and Key Issues of project management. Generation and screening of project ideas, Project Analysis: Market and demand analysis, Technical analysis, Financial estimates and projection, Project Selection: Investment criteria, Risk analysis, Social Cost Benefit analysis.

Project Financing: Financing of projects, Concept of Venture Capital in detail, Difference between Venture Capital and Private Equity. **Project Implementation:** Project planning and control, Network techniques for project management: PERT and CPM Models, **Project Review:** Post Audit and Administrative Aspects.

Relevant case studies related to the topics should be discussed.

Suggested readings:

- Chandra, P. (2017). Projects: Preparation, Appraisal, Budgeting and Implementation. New Delhi: 8th Edition, Tata Mcgraw.
- Desai, V. (2017). Project Management and Entreprenueurship. New Delhi: 2nd Edition, Himalaya Publishing House.
- Fyffe, D. S. (2001). Project Feasibility Analysis. New York: John Wiley and Sns.
- Hisrich, R. D, Peters, M.P, and Shephers, D.A.(2016). *Entrepreneurship*. New Delhi:10th Edition, Tata mc graw.
- Mohanty, Sangram Keshari (2017). Fundamentals of Entrepreneurship, Revised Edition, PHI Learning Pvt Ltd.
- Natrajan, K. and Gordon, E. (2017). Entreprenuership Development. New Delhi: 6th Edition, Himalaya Publishing House.

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MBAGE 201-18

Computer Applications for Business

Course Objective: The purpose of this course is to provide a through exposure to the operating and office management tools available in different packages. A student can be exposed to the working knowledge of Windows based operating systems and software packages such as Windows-95, 98, 2000-Professional, windows -XP and MS -Office.

Course Outcomes: After completing the course, the students shall be able to:

CO1: Develop understanding of computer fundamentals, functions and their classifications

CO2: Develop a clear understanding and knowledge about the functioning of a Computer software and window operating system

CO3: Demonstrate proficiency in Microsoft word & Excel.

CO4: Apply formatting and editing features to enhance worksheets.

CO5: Use styles, themes, and conditional formats to customize worksheets.

CO6: apply the concepts of data base and Access for editing Data; managing reports and labels, Managing Multiple Tables.

Unit I

Introduction to Computer: Definition of Computer, Features of Modern Computer, Classification of Computer on the Basis of Generation.

Components of Computer: Input Unit, Output unit, Central Processing Unit Various Input Devices and Output Devices, Internal and External Memory Storage, RAM, ROM, PROM, EPROM, Hard Disc, Magnetic Tapes

Unit II

Operating System: Concepts, Definition of Operating System (as Resource Manager, Processor Manager and Information Manager)

Window: Introduction to Window (Working of Windows, Manipulation of Icon, Menus and opening different applications simultaneously), Various Versions of Windows, Başic commands of windows (Creating, Moving, Renaming, Deleting Files/Folders). MS-Office: Introduction, Components of Office.

Unit III

MS-Word: History, Creating, Saving, Opening, Importing, Exporting and Inserting document, Formatting pages, Alignment, Paragraphs and Sections.

Indents and Outdents, creating lists and numberings Formatting Commands: Headings, Styles, Fonts and Size editing, Viewing Text, Finding and Replacing text, Headers and Footers, Inserting page breaks, Page numbers, Special Symbols and Dates Mail merge, Preview and Printings command.

MS-PowerPoint: History, Creating, Saving, Opening, existing presentation, Creating and Saving a Presentation using Auto Content Wizard, Design Template, Blank

I.K.G. Punjab Technical University MBA Batch 2018 onwards

Presentation the Slide Sorter View, Slide Show, Inserting pictures and graphics and Printing Slides.

Unit IV

MS-Excel: Introduction, Components of Excel History, Creating, Saving, Opening, Spreadsheet, Formatting numbers and Text, Graph and Chart Formatting Commands, Menu Bar, Toolbars, Producing Charges, Protecting Cell Macro and Printing Operation, Spell Checking, Cell Editing, Calculation of various Financial and Statistical Functions using Formulas.

MS Access: Introduction to Data Base and Access: Viewing and Editing Data; Sorting and Indexing Printing Reports and Labels, Managing Multiple Tables. Forms, Queries, Reports.

Suggested Readings:

- Ram, B.(2018). Computer Fundamentals Architecture and Organization. New Delhi: Age Publications
- Sinha, P.K. and Sinha, P. (2017). Foundation of computing. New Delhi: BPB Publications.
- Arora, A.(2015) Computer fundamentals and applications. Vikas Publishing.
- Rajaraman, V.(2014). Fundamentals of Computers. Delhi: Prentice-Hall.
- Roger, J. (2010) Microsoft Access 2010. Delhi: Pearson Education.
- Forouzan, (2009). Basics of Computer Science. India: Cengage Learning
- Levi, D.S., Kaminsky, P. (2007) Designing and Managing the Supply Chain. McGraw Hill
- Turban, E., Aronson JE., Liang, TP. (2005). Decision Support Systems and Intelligent Systems (7th Edition). Pearson Publishers.

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MBA 301-18 Organizational Behaviour & Design

Course Objective: The course aims to provide an understanding of basic concepts, theories and techniques in the field of human behaviour at the individual, group and organizational levels in the changing global scenario at workplace.

Course Outcomes: Upon completion of this course, students will be able to:

CO1- To explain the basics of Organizational behaviour and various challenges for OB in national and global environment.

CO2- To illustrate the foundations of Individual Behaviour and analyse the influence of individual level factors viz. learning, personality, perception, attitude and motivation on behaviour in organizations.

CO3: To assess the significance of leadership and role of leadership styles in effectiveness of the team. **CO4:** To examine the dynamics of group development, group properties and formation of organizational culture.

CO5: To demonstrate dimensions of organisational design and types of organisational structure and to analyse the influence of environment on organisational design.

CO6: To interpret the effect of political climate (conflict, power and politics) on human behaviour.

Unit 1

Organisational Behaviour: Meaning, foundations, contributing disciplines to OB, Challenges and opportunities for OB.

Individual Behaviour: Foundations of individual behaviour, Determinants of individual behaviour.

Learning and Reinforcement: Theories of learning, Schedules of reinforcement, Behaviour modification.

Emotions and Moods: Types and sources of emotions, emotional intelligence, managing emotions at work place.

Unit 2

Personality: Determinants of personality, The Myers-Briggs Type Indicator model of personality, The Big five model of personality, traits of personality.

Attitudes & Values: sources and types of attitude, cognitive dissonance theory, Types of attitudes at work place, attitude change.

Perception: factors influencing perception, process of perception, attribution theory of perception, perceptual distortions and improving perceptions.

Motivation: early and contemporary theories of motivation, application of motivation process.

Leadership: nature and significance of leadership, theories of leadership, behavioural styles of leaderships, leadership traits, transactional leadership, concept of charisma leaders.

Unit 3

Transactional analysis: Ego states, life positions, Johani window model.

Foundations of Group Behaviour: Nature and concept of group, Group formation, stages of group formation, theories of group formation, Types of teams, issues in team management.

Group Properties: Roles, norms, status, size, cohesiveness and decisions making in groups.

Stress management: sources of stress, approaches for stress management.

Organizational culture: meaning, concept and dimensions of organizational culture, developing organizational culture, cultural differences.

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Unit 4

Understanding Organisations: Meaning and importance of organisations, Organisational theory, Organizational life cycle. Organization and environment: General vs specific environment, actual vs perceived environment, environmental uncertainty. Organisational Design: Meaning, factors influencing organisational design: organizational strategy, size, technology, environment. Dimensions of Organizational design: Complexity, formalization, centralization. Common organizational designs: Traditional designs and contemporary designs. Organisational structure: Meaning and Types of organisational structures.

Conflict Management: Meaning, types and sources of conflict, Process of conflict management, approaches to conflict management. **Learning Organizations:** Meaning of learning organisations, creating learning organisations.

Power and politics in organizations: Nature & concepts, sources and types of power, tactics and techniques of politics.

Suggested Readings /Books:

- Robbins, Organization Behaviour, Pearson Education
- Luthans , Organization Behaviour, Tata McGraw Hill
- Newstrom, Organizational Behaviour: Human Behaviour at work, Tata McGraw Hill
- Kalliath, Organization Behaviour, The McGraw -Hill
- · Griffin& Moorhead, Introduction to Organisational Behaviour, Cengage Learning
- · Hersey, Management of Organizational Behaviour, Prentice Hall India
- Parikh, Gupta, Organisational Behaviour, Tata McGraw Hill
- · Aswathappa, Organization Behaviour, Himalaya Publications
- Locum, Fundamentals of Organisational Behaviour, Cengage Learning.
- · Saiyadain , M.S. : Organization Behaviour , Tata McGraw Hill
- Steven L. McShane, Mary Ann Von Glinow, Radha R Sharma, *Organisational Behaviour*, New Delhi, Tata McGraw Hill, 2007.
- Udai Pareek, *Understanding Organizational Behaviour*, New Delhi, Oxford University Press, 2007.
- P.G Aquinas, Organization Structure and Design-Applications and Challenges, New Delhi, Excel Books, 2010.
- Stephen, P. Robbins and Mary Mathew, Organizational Theory- Structure, Design and Applications, New Delhi, Pearson Education, 2009.

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MBA 302- 18 Marketing Research

Objective: The course aims to provide an understanding of basic concepts, theories and statistical techniques used in research. Students will also be given exposure to use and apply SPSS.

Course Outcomes: Upon completion of this course, students will be able to:

CO1: Understand the process of marketing research and its application in managerial decision making

CO2: Identify various sources of data for marketing research.

CO3: Examine different research methods and be able to apply them.

CO4: Identify different research designs and develop a research proposal.

CO5: Design an effective questionnaire and test reliability and validity of the scales.

CO6: Apply different methods of data preparation and data analysis.

Unit I

Marketing Research: Definition, Nature and Scope for marketing decision making. Marketing Research Process. Types of Research – Descriptive research, Exploratory Research and Causal Research.

Sources of Data: Commercial (Syndicated) and Non-commercial Sources of Secondary Data for Marketing Research.

Unit II

Casual Research Designs: Basic designs – After-only design, Before-After design, After only with control group design, Before-After with control group design, Time Series Design Latin Square Design, Factorial Design, Ex-Post Facto Design, Completely Randomized Design, Randomized Block Design.

Observation Research: Direct Observation, Indirect Observation, Observational Variables. **Developing Research Proposal:** purpose, nature and evaluation, content and format.

Unit III

Questionnaire Design: Principles of Writing Questionnaire.

Reliability and Validity: Basic concepts; True Score Model; Measurement Errors in Marketing; Scales of Measurement – Nominal, Ordinal, Interval and Ratio; Coefficient Alpha and Internal Consistency; Types of Reliability – Test-retest Reliability, Alternative Forms and Split-Half Reliability; Types of Validity – Content, Criterion, Concurrent, Predictive Convergent, Construct, Discriminant and Nomological Validity; Concept of Generalizability.

Unit IV

Data Preparation: Understanding SPSS, Creating SPSS Sheet; Entry of Data in SPSS; Basic computations of Descriptive Statistics.

Basic Data Analytic Techniques: Assessing Reliability; Computing Coefficient Alpha Scale Refinement and Item Analysis.

Advanced Data Analytic Techniques: Correlation Analysis, Factor Analysis, Regression Analysis.

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Suggested Readings:

- 1. Malhotra N.K., Marketing Research, Pearson Education, New Delhi, 2012.
- 2. DR. Cooper, &P.S, Schindler, Business Research Methods, Tata McGraw Hill.
- 3. Thomas C. Kinnear and James R. Taylor, Marketing Research-An Applied Approach, McGraw Hill
- 4. Paul, E. Green and Donald, S. Tull, Research for Marketing Decisions, Prentice Hall of India Pvt. Ltd., Delhi.
- 5. Harper, W. Boyd, (Jr.), Ralph Westfall and Tandoy, F. Stasch, Marketing Research, All India Travelers Bookseller, Delhi, 2002.
- 6. Ramanuj Majumdar Marketing Research, Wiley Eastern Ltd., New Delhi, 1991.
- 7. David J. Luck and Ronald S. Rubin, Marketing Research, Prentice Hall of India, 1990.
- 8. Nargundkar R, Marketing Research, Tata McGraw Hill, New Delhi, 2002.
- 9. Churchill & Israel, Marketing Research, Cengage Learning
- 10. Zikmund, Esgentials of Marketing Research, Cengage Learning.

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HVPE 101-18 HUMAN VALUES, DE-ADDICTION AND TRAFFIC RULES

Course Objective: This introductory course input is intended

a. To help the students appreciate the essential complementarily between 'VALUES' and 'SKILLS' to ensure sustained happiness and prosperity which are the core aspirations of all human beings.

b. To facilitate the development of a Holistic perspective among students towards life, profession and happiness, based on a correct understanding of the Human reality and the rest of Existence. Such a holistic perspective forms the basis of Value based living in a natural way.

c. To highlight plausible implications of such a Holistic understanding in terms of ethical human conduct, trustful and mutually satisfying human behavior and mutually enriching interaction with Nature.

Thus, this course is intended to provide a much needed orientational input in Value Education to the young enquiring minds.

Course Methodology

- The methodology of this course is universally adaptable, involving a systematic and rational study of the human being vis-à-vis the rest of existence.
- It is free from any dogma or value prescriptions.
- It is a process of self-investigation and self-exploration, and not of giving sermons. Whatever is found as truth or reality is stated as proposal and the students are facilitated to verify it in their own right based on their Natural Acceptance and Experiential Validation.
- This process of self-exploration takes the form of a dialogue between the teacher and the students to begin with, and within the student himself/herself finally.
- This self-exploration also enables them to evaluate their pre-conditionings and present beliefs.

Content for Lectures:

Module 1: Course Introduction - Need, Basic Guidelines, Content and Process for Value Education

- 1. Understanding the need, basic guidelines, content and process for Value Education
- 2. Self Exploration—what is it? its content and process; 'Natural Acceptance' and Experiential Validation- as the mechanism for self exploration
- 3. Continuous Happiness and Prosperity- A look at basic Human Aspirations
- 4. Right understanding, Relationship and Physical Facilities- the basic requirements for fulfillment of aspirations of every human being with their correct priority
- 5. Understanding Happiness and Prosperity correctly- A critical appraisal of the current scenario
- 6. Method to fulfill the above human aspirations: understanding and living in harmony at various levels

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Module 2: Understanding Harmony in the Human Being - Harmony in Myself! [6]

- 7. Understanding human being as a co-existence of the sentient 'I' and the material 'Body'
- 8. Understanding the needs of Self ('I') and 'Body' Sukh and Suvidha
- 9. Understanding the Body as an instrument of 'I' (I being the doer, seer and enjoyer)
- 10. Understanding the characteristics and activities of 'I' and harmony in 'I'
- 11. Understanding the harmony of I with the Body: Sanyam and Swasthya; correct appraisal of Physical needs, meaning of Prosperity in detail
- 12. Programs to ensure Sanyam and Swasthya
 - Practice Exercises and Case Studies will be taken up in Practice Sessions.

Module 3: Understanding Harmony in the Family and Society- Harmony in Human-Human Relationship

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- 13. Understanding harmony in the Family- the basic unit of human interaction
- 14. Understanding values in human-human relationship; meaning of *Nyaya* and program for its fulfillment to ensure *Ubhay-tripti*; Trust (*Vishwas*) and Respect (*Samman*) as the foundational values of relationship
- 15. Understanding the meaning of Vishwas; Difference between intention and competence
- 16. Understanding the meaning of *Samman*, Difference between respect and differentiation; the other salient values in relationship
- 17. Understanding the harmony in the society (society being an extension of family): Samadhan, Samridhi, Abhay, Sah-astitva as comprehensive Human Goals
- 18. Visualizing a universal harmonious order in society- Undivided Society (Akhand Samaj). Universal Order (Sarvabhaum Vyawastha) from family to world family!
 - Practice Exercises and Case Studies will be taken up in Practice Sessions.

Module 4: Understanding Harmony in the Nature and Existence - Whole existence as Co-existence

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- 19. Understanding the harmony in the Nature
- 20. Interconnectedness and mutual fulfillment among the four orders of nature-recyclability and self-regulation in nature
- 21. Understanding Existence as Co-existence (Sah-astitva) of mutually interacting units in all-pervasive space
- 22. Holistic perception of harmony at all levels of existence
 - Practice Exercises and Case Studies will be taken up in Practice Sessions.

Module 5: Implications of the above Holistic Understanding of Harmony on Professional Ethics [6]

- 23. Natural acceptance of human values
- 24. Definitiveness of Ethical Human Conduct
- 25. Basis for Humanistic Education, Humanistic Constitution and Humanistic Universal Order
- 26. Competence in professional ethics:

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- a) Ability to utilize the professional competence for augmenting universal human order,
- b) Ability to identify the scope and characteristics of people-friendly and eco-friendly production systems,
- Ability to identify and develop appropriate technologies and management patterns for above production systems.
- Case studies of typical holistic technologies, management models and production systems
- 28. Strategy for transition from the present state to Universal Human Order:
 - a) At the level of individual: as socially and ecologically responsible engineers, technologists and managers
 - b) At the level of society: as mutually enriching institutions and organizations

Text Book

R R Gaur, R Sangal, G P Bagaria, 2009, A Foundation Course in Value Education.

Reference Books

- 1. Ivan Illich, 1974, Energy & Equity, The Trinity Press, Worcester, and HarperCollins, USA
- 2. E.F. Schumacher, 1973, Small is Beautiful: a study of economics as if people mattered, Blond & Briggs, Britain.
- 3. A Nagraj, 1998, Jeevan Vidya ek Parichay, Divya Path Sansthan, Amarkantak.
- 4. Sussan George, 1976, How the Other Half Dies, Penguin Press. Reprinted 1986, 1991
- 5. PL Dhar, RR Gaur, 1990, Science and Humanism, Commonwealth Purblishers.
- 6. A.N. Tripathy, 2003, Human Values, New Age International Publishers.
- 7. Subhas Palekar, 2000, *How to practice Natural Farming*, Pracheen(Vaidik) Krishi Tantra Shodh, Amravati.
- 8. Donella H. Meadows, Dennis L. Meadows, Jorgen Randers, William W. Behrens III, 1972, *Limits to Growth Club of Rome's report*, Universe Books.
- 9. E G Seebauer & Robert L. Berry, 2000, Fundamentals of Ethics for Scientists & Engineers, Oxford University Press
- 10. M Govindrajran, S Natrajan & V.S. Senthil Kumar, Engineering Ethics (including Human Values), Eastern Economy Edition, Prentice Hall of India Ltd.
- 11. B P Banerjee, 2005, Foundations of Ethics and Management, Excel Books.
- 12. B L Bajpai, 2004, *Indian Ethos and Modern Management*, New Royal Book Co., Lucknow. Reprinted 2008.

Relevant CDs, Movies, Documentaries & Other Literature:

- 1. Value Education website, http://uhv.ac.in
- 2. Story of Stuff, http://www.storyofstuff.com
- 3. Al Gore, An Inconvenient Truth, Paramount Classics, USA
- 4. Charlie Chaplin, Modern Times, United Artists, USA
- 5. IIT Delhi, Modern Technology the Untold Story

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HVPE 102-18 Human Values, De-addiction and Traffic Rules (Lab/Seminar)

One each seminar will be organized on Drug De-addiction and Traffic Rules. Eminent scholar and experts of the subject will be called for the Seminar atleast once during the semester. It will be binding for all the students to attend the seminar.

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MBA 921-18

Consumer Behaviour

Course Objective: The objective of this course is to help students understanding various factors affecting consumer behavior and to understand the process of consumer buying. Based on the understanding of consumer behavior, the students are expected to design the strategy.

Course Outcomes: Upon completion of this course, students will be able to:

CO1: Provide an understanding of how consumers make decisions.

CO2: Analyze personal and environmental factors that influence consumer decisions.

CO3: Understand the processes used when individuals, group or organizations make buying decisions.

CO4: Understand how and why marketers craft particular messages to appeal to consumers.

CO5: Understand the interrelationship with other functional areas of business as a part of the management process.

CO6: Assess the process of opinion leadership and its relationship with firm's promotional strategy.

UNIT-I

Introduction to Consumer Behaviour

Consumer Behaviour: Scope, importance and interdisciplinary nature. Consumer Research Process: Qualitative and Quantitative research. Market Segmentation: Uses and bases of segmentation. Emerging trends in consumer behavior: Consumer behavior in online space. Use of Information technology and AI in consumer profiling and engagement, concept of materialistic vs spiritualistic consumption.

UNIT-II

Individual Determinants of Consumer Behaviour

Motivation: Nature and Types of Motives, Process of motivation, types of Needs. Personality: Theories, Product Personality, Self Concepts. Consumer Perception: Concept and Elements of Perception, Consumer Imagery, Perceived Risk. Consumer Learning: Behavioural and Cognitive Learning Theories. Consumer Attitude: Functions of Attitude and Sources of Attitude Development, Attitude formation Theories (Tricomponent, Multi attribute and Cognitive Dissonance), Attitude Change Strategies.

UNIT-III

External Influences on Consumer Behaviour

Group Dynamics and Reference Groups: Consumer relevant groups, Types of Family: Functions of family, Family decision making, Family Life Cycle (Modern and Traditional) Culture: Values and Norms, Characteristics and influence on Consumer Behaviour, sub culture, Cross cultural consumer behavior. Social Class: Categories, Measurement and Applications of Social Class.

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UNIT-IV

Consumer Decision Making

Process and models (Howard Sheth, Nicosia Model, Engel Blackwell and Kollat). Personal Influence and Opinion Leadership: Process of Opinion Leadership, Profile of Opinion Leader, Opinion leadership and Firm's Promotional Strategy. Diffusion of innovations: Diffusion Process, Adoption Process, and Profile of Consumer Innovators

Suggested Readings:

- 1. Schiffman, L.G. and Kanuk, L.L., Consumer Behavior, Prentice Hall of India
- 2. Loudon, D. and Bitta, D., Consumer Behaviour, Tata Mc Graw Hill
- 3. Assael, H., Consumer Behaviour in Action, Cengage Learning
- 4. Blackwell, R.D., Miniard, P.W. and Engel, J.F., Consumer Behaviour, Thomson Learning

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Services Marketing

Course Objective: The objective of this course is to help students understanding various factors affecting consumer behavior and to understand the process of consumer buying. Based on the understanding of consumer behavior, the students are expected to design the strategy.

Course Outcomes: Upon completion of this course, students will be able to:

CO1: Understand the fundamental concepts of service marketing and its functions.

CO2: Identify the role and significance of various elements of service marketing mix.

CO3: Analyze customer requirement, measure service quality and design and deliver better service.

CO4: Analyze integrated services marketing communications and services marketing triangle.

CO5: Examine various pricing strategies and pricing approaches in service sectors.

CO6: Understand service marketing applications in different service sectors.

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UNIT-I

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Introduction to Services: Growth and development of service sector economy, contribution to the Indian economy, Service Characteristics, Service Classification, Service Marketing Mix. Consumer Behavior in Services: Customer Expectation of Service, Customer Perceptions of Service. Service Quality: Integrated gaps model of service quality. Prescriptions for closing quality gaps

UNIT - II

Managing relationships in Services: Building customer loyalty, Complaint handling and Service recovery strategies. Service development and design: Challenges of service design, types of new services, core and supplementary elements, new service development process. Service blueprinting: Nature, need and process of blueprinting. Physical evidence and the Servicescapes: Nature, Importance and Types, role and its effect on Consumer behaviour.

UNIT-III

Delivering and performing service through employees and customers: service culture, employee's role, strategies to deliver quality, cycle of failure, mediocrity and success, self service technologies and Customer Participation. Delivering services through intermediaries: Nature and types of intermediaries, role of electronic channels in service delivery. Managing demand and capacity: Waiting line strategies integrated. Integrated Services Marketing Communications and Services marketing triangle

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UNIT-IV

Pricing of services: Pricing approaches, Pricing Strategies. Service Marketing Applications: Marketing of services in Financial, Healthcare and Hospitality sectors.

Suggested Readings:

- Zeithmal A Valarie and Bitner Mary, Services Marketing, Tata McGraw Hill, New Delhi.
- 2. Lovelock, Christopher H. Services Marketing, Pearson Education, New Delhi
- 3. P.K.Sinha and S.C.Sahoo, Services Marketing, Himalaya Publishing House, New Delhi

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MBA 911-18

Investment Analysis and Portfolio Management

Course Objective: This course aims to acquaint students with the market microstructure of financial markets and understanding of economic, industrial and company analysis. It shall also enable them to understand the valuable linkage between modern theories of finance and the analytical techniques used by investors for valuing securities and construct portfolios to achieve investor's investment goals.

Course Outcomes: Upon completion of this course, students will be able to:

CO1 – To familiarize the students about the basic concepts, various investment avenues, process of investment and market microstructure of financial markets.

CO2 - To enable students to understand the operation of primary as well as secondary markets in India and to understand the concepts of risk and its measurement.

CO3 – To familiarize the students with the concepts and process of fundamental analysis so that they may understand the impact of various environmental factors on investment valuation..

CO4 – To explain the concepts and process of technical analysis and enable the students to understand the role of daily price movements in portfolio management.

CO5 – To explain the concepts, process and techniques for portfolio construction, evaluation and revision.

CO6 – To familiarize the students about the financial derivatives and computation of their expected payoffs.

Unit I

Introduction: Concepts of investment, objectives of investment, various alternatives of investments, investment process, financial investments vs. real investments, differentiate investment, speculation and gambling. Risk and Return: Concept, types and measurement of risk and return.

Financial Markets - Primary and secondary markets. Introduction to primary market, design of primary market, its role and functions, types of offers in the primary market, SEBI guidelines on primary market

Secondary Market: Introduction, participants, trading and settlement Mechanism, types of orders, stop Loss, margin trading, short selling, price freeze, hair-cut, market wide circuit breakers, insider trading, bulk deals, block deals and arbitrage opportunity in the market.

Unit II

Fundamental Analysis: Meaning, scope and introduction to concept of intrinsic value. Process of conducting economic analysis; industry analysis and company analysis by using E-I-C and C-I-E approaches. Valuation of securities using fundamental analysis.

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Unit III

Technical Analysis: introduction, terminology of technical analysis, Dow theory, characteristic phases of Bull and Bear trends, critical appraisal of Dow theory, various types of charts, concept of trend, trend lines: support and resistance, Importance of trading volume, reversal patterns, continuation pattern, moving averages, other market indicators

Portfolio Management: Meaning, importance and approaches of portfolio management, portfolio analysis, portfolio evaluation and revision techniques.

Unit IV

Portfolio Theory: Markowitz Model, Capital Asset Pricing Model, Single-index model, Arbitrage Pricing Theory. Market Efficiency and Behavioral Finance

Derivatives: Introduction, features, derivative instruments, difference between forward and futures contracts, types of option contracts, computing payoffs of forward, futures and option contracts.

Suggested Readings

- Reily and Brown, Investment Analysis and Portfolio Management, Cengage, New Delhi
- 2. Bodie, Kane, Marcus and Mohanty, Investments, Tata McGraw Hill, New Delhi
- 3. Fisher DE and Jordon RJ, Security Analysis and Portfolio Management, PHI, New Delhi
- 4. Hirt and Block, Fundamentals of Investment Management, Tata McGraw Hill, New Delhi
- 5. V. A. Avdhani 'Security Analysis and Portfolio Management' Himalaya Publications
- 6. Preeti Singh 'Investment Management' Himalaya Publications

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MBA 912-18

Management of Financial Services

Course Objective: The objective of the course is to understand role of Financial Services in Business organizations and to give an insight into the strategic, regulatory, operating and managerial issues concerning select financial services. In addition, the course will examine the present status and developments that are taking place in the financial services sector and developing an integrated knowledge of the functional areas of financial services industry in the real services industry in the real world situation.

Course Outcomes: Upon completion of this course, students will be able to:

CO1: To understand the concept of financial services and their importance.

CO2: To know the structure and schemes of mutual funds.

CO3: To understand the importance and process of Dematerialisation and remateralisation.

CO4: To know the structure and system of credit rating ,leasing ,merchant banking and venture capital.

CO5: To know the process and importance of factoring and securitisation.

CO6: To understand the process of asset liability management and risk management in banks.

Unit I

Financial Services: Meaning, types and their importance. Financial sector reforms in India, Future challenges for Indian banks, Improving risk management systems, Banking and the Management of Financial Services

Mutual Funds and Pensions Funds, Insurance Services, Bank assurances, Reinsurances, Venture Capital –Private Equity –strategic secrets of private equity, Investment strategies, Hedge funds, E banking, Securitization –Indian Banking and Financial crisis, Asset Reconstruction Companies, Depositaries, Credit Cards, Micro/Macro finance, Financial Inclusion, Behavioural Finance.

Depository – Introduction, Concept, depository participants, functioning of depository systems, process of switching over to depository systems, benefits, depository system in India, Dematerialization and Re materialization. Role, objectives and functions of SEBI and its guidelines relating to depository system.

Unit II

Credit rating: The concept and objective of credit rating, various credit rating agencies in India, Credit Rating Agencies –Importance, Issue, Difference in credit rating, Rating methodology and benchmarks, Are Indian Credit Rating Credible? International credit rating agencies –crisis of confidence?

Leasing: Concept and development of leasing, business, difference between leasing & hire purchase, types of leasing business, advantages to lessor and lessee. Tax aspect of leasing.

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Merchant Banking: Origin and development of merchant banking in India scope, organizational aspects and importance of merchant bankers. Latest guidelines of SEBI w.r.t. Merchant bankers.

Venture Capital: Concepts and characteristics of venture capital, venture capital in India, guidelines for venture capital.

Unit III

Debt Securitization: Meaning, Features, Scope and process of securitization.

Factoring: Development of factoring types & importance, procedural aspects in factoring, financial aspects, prospects of factoring in India.

Plastic Money: Concept and different forms of plastic money – credit and debit cards, pros and cons. Credit process followed by credit card organizations. Factors affecting utilization of plastic money in India.

Unit IV

Asset Liability Management: Significances, ALM process, Techniques – Gap, Duration, Simulation, Value at Risk value of equity and market value of equity perspective.

Risk Management in Banks: Credit risk management, Operational risk management, Market risk management, Corporate treasury management, Liquidity risk management, Governance risk and compliance, Asset Liability Management and Basel 2 – Basel 1 and 2, IPR and Basel 2, Three Pillars, ALM and Interest rate swaps, Swaps as a risk management tool, ALM and Capital Adequacy, ALM Software's.

Note: Relevant Case Studies should be discussed in class.

Suggested Readings:

1. M Y Khan 'Financial Services' Tata McGraw-Hill.

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- 2. L M Bhole 'Financial Instructions & Markets' Tata McGraw-Hill
- 3. S Gurusamy 'Financial Services & System' Thomson Publications
- 4. V. A. Avdhani 'Financial Services in India' Himalaya Publications
- 5. Gordon & Natarajan 'Financial Markets & Services' Himalaya Publications
- 6. Vasant Desai 'Financial Markets & Financial Services' Himalaya Publications
- 7. Harrington, S. E. (2004). Risk management and insurance: Instructor manual (2nd ed.). New York: McGraw-Hill Publishing Company.
- Madura, J. (2009). Financial markets and institutions (9th ed.). USA: South Western College.
- McDonald, S. S., & Koch, T.W. (2009). Management of banking (7th ed.). USA: Cengage Learning.
- Mishkin, F.S., & Eakins, F.S. (2009) financial markets and institutions. (6th ed.).
 New Delhi: Pearson Education.
- Rose, P.S. (2008). Bank management and financial services (8th ed.) USA: McGraw-Hill Education.
- 12. Saunders, A., & Cornett, M.M. (2007). Financial institutions management: A risk management approach (6th ed.). New Delhi: McGraw-Hi**\[1\]**.

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MBA 931-18 Organizational Change and Development

Course Objective: This course aims to introduce students to theories and concepts of organizational change and development and also it enhances the knowledge and understanding of organizational interventions terminology and provides students with the opportunity to apply the key concepts to practical organizational situations.

Course Outcomes: Upon completion of this course, students will be able to:

CO1:Develop understanding of organization change and Define, explain and illustrate theories of planned change, their relevant foundations, strengths and weaknesses.

CO2:Recognize and comment on issues and problems arising out of organizational change initiatives.

CO3:To Understand concepts related to system theory, Action Research and Models,

CO4:Understand the role of various intervention strategies in organizational development.

CO5:Facilitate organizational change; and apply diagnostic models and concepts to change issues at the organizational, group and individual levels.

CO6: Examine various issues in the relationship between client and consultant relationship.

Unit -I

Introduction to Organizational Change and Development; Definitions & its distinguishing characteristics, Dynamics of planned change, models and theories of planned change, triggers for change, strategies for implementing organizational change. Foundations of OD: Conceptual Framework of OD, Historical background of OD, Values, assumptions and beliefs in OD, Systems theory, Participation and Empowerment, Teams and Teamwork, Strategies of change, Inter-Disciplinary Nature of OD.

Unit -III

Action Research and OD, Action Research: A Process and an Approach. Managing OD Process: Diagnosis, The Six-Box Model, Third Waves Consulting, Nature of OD intervention, Analysis of Discrepancies, Phases of OD Program, Model of Managing Change, Creating Parallel Learning Structures.

OD Interventions: An overview, characteristics of OD interventions. Structural Interventions, Training Experience: T-Groups, Behavioral Modeling and Career Anchors.

Unit -III

Team Interventions, Intergroup and Third-Party Peace-Making Interventions. Comprehensive Interventions, Power, politics and OD: Power defined and explored, theories about the sources of Power, Organizational Politics in the practice of OD.

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Unit -IV

Issue in Consultant-Clint Relations: Entry and contracting, defining the client system, trust, the nature of the consultant's expertise, diagnosis and appropriate, interventions, depth of intervention, on being absorbed by the cultural, the consultant as a model, the consultant team as a microcosm, the dependency issue and terminating the relationship, ethical standards in OD, Implications of OD for the Client. Contemporary Issues in OD. OD and Quality Movement, OD- Now and Beyond.

Note: Relevant Case Studies should be discussed in class.

Suggested Readings:

- 1. Wendeel L. French, Cecil H. Bell: Organization Development Prentice Hall
- 2. Richard Beckhard: Organization Development Strategies & Models Tata Mc Graw Hill.
- 3. Blake, Robert & Mouton: Building a Dynamic Corporate through Grid OD, Homewood
- 4. Thomas H, Patten Organization Development through Team Building , Thomas Publication
- 5. Edgar F. Huse: Organization Development & Change, Thomas Publication
- 6. Burke W.W.: Organization Development Principles & Practice, Sage Publication
- 7. S. Ramnarayan & Kuldeep Singh and T.V. Rao: OD Interventions & Strategies, Response Books, New Delhi.
- 8. S. Ramnarayan, and T.V. Rao: OD Accelerating Learning & Transformation, Sage, New Delhi

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MBA 932-18 Employee Relations

Course Objective: The aim of this course is to help students to understand basics of labour laws and industrial relations applicable in various business houses.

Course Outcomes: Upon completion of this course, students will be able to:

CO1: Understand establishing & maintaining a sound relationship between the worker & the employer.

CO2: Understand the significance & functioning of Trade Unions.

CO3: Identify the simmering issues which might take the form of a dispute in the workplace.

CO4: Examine various provisions laid down by laws to settle disputes in the organizations.

CO5: Assess the importance of various Acts in Industrial Relations. CO6: Comprehend the concept and classification of labour welfare.

Unit-I

Industrial Relations-Concept, Theories and Evolution, System approach to IR-Actors, Context, Web of Rules & Ideology, Trade Unionism, impact of trade unions on wages, The Trade unions Act, 1926 (with amendments), Factories Act, 1947 (with amendments).

Unit __ Mister

Anatomy of industrial disputes. Dispute Settlement Machinery: Conciliation-Concept, Types, Conciliation Procedure and Practices in India; Adjudication – Concept and types; Arbitration: Approaches and types. Sexual Harassment. Industrial Disputes Act 1947, Provisions in Industrial Disputes- Lay Off, Termination Retrenchment, Closures, VRS, Anatomy of Industrial disputes, Managing foreign

nationals in Indian organizations.

Unit-III

Social Security: Concept, Social Assistance, Social Insurance. Payment of wages Act,1936, Payment of Bonus Act, 1965, Workman's Compensation Act,1923, Payment of Gratuity Act 1982.

Unit-IV

Maternity Benefit Act,1961, ESI Act 1948, Provident Fund and Miscellaneous Provisions Act, 1951.

I.L.O and social Security. The concept of Labour welfare: definition, Scope and Objectives, classification of welfare work, agencies for welfare work. Agencies for administering labour welfare laws in India.

Note: Relevant Case Studies should be discussed in class.

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Suggested Readings:

- 1. Venkata Ratnam, C.S. "Industrial Relations". Oxford University Press, New Delhi, 2006.
- 2. Srivastava, S. C. "Industrial Relations and Labour Laws", Vikas Publishing House Pvt Ltd, New Delhi, 2008.
- 3. Sinha, P.R.N., Sinha, Indu Bala and Shekhar, Seema Priyadarshini, "Industrial Relations, Trade Unions, and Labour Legislation", Pearson Education, New Delhi, 2004.
- 4. Sen Ratna, "Industrial Relations in India", MacMillan, New Delhi, 2003.
- 5. Mamoria, Mamoria and Gankar. "Dynamics of Industrial Relations", Himalaya Publishing House, New Delhi, 2007.
- 6. Monappa Arun, "Industrial Relations", Tata McGraw Hill Edition, New Delhi, 2007.
- 7. Davar, R S, Personnel Management and Industrial Relation, Vikas Publishing House Pvt. Ltd, New Delhi; 1999.
- 8. Sivarethinamohan, R, Industrial Relations and Labour Welfare- Text and Cases, PHI Learning Pvt. Ltd, New Delhi, 2010.

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MB 941-18: Data Mining for Business Decisions

Objective: The objective of this paper is to acquaint the students with an introduction to data analytics, data mining, and data-driven decision making. Data mining enables one to extract useful insights, which then can be utilized for data-driven decision-making and competitive advantage. Data mining and data analytics involve a collection of techniques for extracting patterns and trends in large databases to present results to stakeholders in terms of the business objectives set, and how the information learned can be used to add value to the business. For this course, two software packages that are commonly used throughout industry are: WEKA, a well-established, highly popular data mining application, and R, a powerful open-source statistical language.

Course Outcomes: Upon completion of this course, students will be able to:

- CO1: To understand the opportunities, techniques and critical challenges in using data mining and predictive modelling in a business setting.
- CO2: Use research-based knowledge and methods including company analysis, primary and secondary data collection, analysis and interpretation of data to find solution to business problems
- CO3: To understand and translate business challenges into data mining problems.
- CO4: To become familiar with the processes needed to develop, report and analyze business data.
- CO5: To gain an understanding of how managers use business analytics to formulate and solve business problems and to support managerial decision making.

Unit I

Need for strategic information, difference between operational and informational data stores Data warehouse: definition, characteristics, role and structure, Introduction to Business Intelligence. Introduction to OLAP and its Operations, Data mart, Building a data warehouse, Introduction to Dimensional Modelling and ETL Process.

Unit II

Introduction to Data mining Process, Data Mining functionalities, various kinds of Data mining (Text mining, Web mining, Pattern Mining, Sequence Mining, Context Based Mining), Introduction to Data Visualization, Predictive Data Mining and descriptive data mining. Need of Data analytics for business intelligence

Unit III

Regression and correlation; Classification: Decision trees; Clustering - Neural networks; Market basket analysis - Association rules - Genetic algorithms and link

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analysis, Support Vector Machine Bayesian Classification: Bayes theorem, Bayesian belief networks Naive Bayesian classification, Other classification methods: k-Nearest Neighbour, case based reasoning, Genetic algorithms, Fuzzy set approach

Unit IV

Introduction to prediction: linear and multiple regression, Clustering: types of Data in cluster analysis: interval scaled variables, Binary variables, Nominal, ordinal, and Ratioscaled variables; Major Clustering Methods: Partitioning Methods: K-Mean and K-Mediods, Hierarichal methods: Agglomerative, Density based methods: DBSCAN

Note: Relevant Case Studies should be discussed in class.

Suggested Readings:

- Data Mining: Concepts and Techniques By J.Han and M.Kamber Publisher Morgan Kaufmann Publishers
- Modern Data Warehousing, Mining and Visualization By George M Marakas, Publisher Pearson

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MB 942 - 18: E-Commerce and Digital Markets

Objective: The objective of this paper is to acquaint the students with the effectiveness of ecommerce and digital marketing. Students will learn about the implications of an increasingly technological Society and to provide insights on how to implement marketing in a digital world. Course Outcomes: Upon completion of this course, students will be able to:

CO1: To understand of various applications and scope of ecommerce.

CO2: To know the working of various payment modes used in ecommerce today.

CO3: Understand how and why to use digital marketing for multiple goals within a larger marketing and/or media strategy, Developing effective digital and social media strategies

CO4: Understand the major digital marketing channels - online advertising: Digital display, video, mobile, search engine, and social media

CO5: Students will be able to explore the latest digital ad technologies

Unit I

Need and Origin of E-Commerce, Factors affecting E -Commerce, Business dimension and technological dimension of E-Commerce, E-Commerce framework

Electronic Commerce Models, Value Chains in Electronic Commerce. Internet and E-Business Introduction to Internet and its application, Intranet and Extranets. World Wide Web, Internet Architectures, Internet Applications, Business Applications on Internet, E - Shopping,

Electronic Data Interchange, Components of Electronic Data Interchange, Creating Web Pages using HTML.

Unit II

Technology for Online Business: Internet, IT Infrastructure, Middleware Contents, Text and Integrating E-Business Applications, Mechanism of Making Payment Through Internet, Online Payment Mechanism, Electronic Payment Systems, Payment Gateways, Visitors to Website, Tools for Promoting Website, Plastic Money, Debit Card, Credit Card, Laws Relating to Online Transactions. Applications in E-commerce: E-commerce Applications in Manufacturing, Wholesale, Retail and Service Sector

Unit III

Understanding Digital Marketing Process, Digital marketing vs. Traditional marketing, Website Planning Process: Understanding Domain names & Domain extensions, Search Engine Optimization: Understanding SEO, SEO Keyword Planning, On Page SEO, Off Page SEO, Local SEO, Social media marketing, Understanding the existing Social Media paradigms & psychology, How social media marketing is different than others Forms of Internet marketing, Google analytics: Introduction to Google Analytics, how Google Analytics works, Google AdWords & Online Display advertising

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Unit IV

Email marketing: Need, working and challenges faced in sending bulk emails, Types of email marketing- Opt-in & bulk emailing, Lead Generation for Business: Understanding lead generation for business and its importance. Landing page vs website, Content marketing, Affiliate marketing: Sources to Make Money Online, Selecting Affiliate Program, Blogging & freelancing to make money, AdSense, approval process and AdSense Administration. E Business Entrepreneurship.

Note: Relevant Case Studies should be discussed in class.

Suggested Readings:

- Whitley, David, "E-Commerce Strategy, Technologies and Applications", Tata McGraw Hill.
- Gary P. and Perry, James T., "Electronic Commerce, Schneider", Thomson Learning.
- · Bajaj, Kamlesh K & Nag, Debjani, "E-Commerce: The Cutting Edge of Business", McGraw Hill
- Laudon and Traver, "E-Commerce: Business, Technology & Society", Pearson Education
- Damian Ryan, Calvin Jone. Kogan Page; "Understanding Digital Marketing: Marketing Strategies for Engaging the Digital Generation".
- Kent Wertime, Ian Fenwick; "DigiMarketing: The Essential Guide to New Media and Digital Marketing"
- Seema Gupta, Digital Marketing, McGraw Hill

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MBA 401-18 Corporate Strategy

Course Objective: This course aims to familiarize the students with organization perspective from strategic viewpoint integrating different functional areas of management. The aim is to develop an understanding of how organizational strategies are formulated and implemented in a changing global environment.

Course Outcomes: After studying this course, the students should be able to:

CO1: Understand the concepts of strategic management process and strategic decision making process.

CO2: Discuss various techniques of external as well as internal environmental analysis of business.

CO3: Explain various business level and corporate level strategies for the growth of the business along with their implications.

CO4: Illustrate the issues involved in strategy implementation and the role of leadership, communication and organizational structure in implementation of strategy.

CO5: Develop various functional plans for successful implementation of strategy. CO6: Understand organisational systems and techniques of strategic evaluation and control.

Unit I

Understanding Strategy and Strategic Management: Strategic Management Process, Strategic Decision Making, Levels of Strategy, Role of strategists, Benefits of Strategic Management, Mckinsey's 7 S model.

Defining Strategic Intent: Vision, Mission, Goals and Objectives.

External Environment Analysis: Concept of environment, Strategically Relevant Components of External Environment, Environmental Scanning Techniques- ETOP, PEST, SWOT, TOWS.

Unit II

Industry analysis- Porter's Five Forces Model; Strategic Group Mapping; Industry Driving Forces; Key Success Factors, External Factor Evaluation Matrix.

Internal Environment Analysis — Organisational capabilities in various functional areas and Strategic Advantage Profile. Resource based view of an organization: VRIO Framework; Value Chain Analysis; Competitive Advantage and Core Competency, Identification of Critical Success Factors (CSF). Internal Evaluation Factor Matrix.

Business Level Strategies — Porter's Framework of Competitive Strategies: Cost, Leadership, Differentiation and Focused Strategies, Location and timing tactics. Concept, Importance, Building and use of Core Competence.

Unit III

Corporate Level Strategies – Expansion (growth)-Horizontal and Vertical Integration, Strategic outsourcing, Related and Un-related Diversification, International Entry Options, Corporate restructuring. Concept of Synergy, Mergers & Acquisitions, Stability, harvesting and Retrenchment and Combination strategies.

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Strategic Analysis and choice (Multi Business Strategies: Portfolio Strategies) – BCG, GE Nine cell, Product life cycle Matrix).

Unit IV

Strategy Implementation— Strategy- Structure Fit: Resource allocation, Projects and Procedural issues. Organisation structure and systems in strategy implementation. Leadership and corporate culture. Operational and derived functional plans to implement strategy. Integration of functional plans.

Strategy Evaluation and Control – Nature of Strategy Evaluation; Strategic control and operational Control. Organistional systems and Techniques of strategic evaluation, Strategy Evaluation Framework; The Balanced Score Card.

Suggested Readings:

- Thompson, Arthur A Jr.; Strickland A J III; Gamble, John E and Jain, Arun K. "Crafting and Executing Strategy. The Quest for Competitive Advantage - Concepts and Cases", Tata McGraw, New Delhi.
- Kazmi, Azhar, Strategic Management, Tata Mc. Graw
- Wheelen Thomas L. & Hunger J. David; Concepts in Strategic Management and Business Policy; Pearson Education
- Pearce III, John A, Robinson, Jr., Richard B and Mittal, A "Strategic Management:Formulation, Implementation and Control. Tata McGraw Hill.
- David, R Fred, "Strategic Management- Concepts and Cases", Pearson Education, India.
- Hill, Charles W L and Jones Gareth R, "An Integarated Approach to Strategic Management" Cengage Learning
- Pitts, Robert A and Lei, David. "Strategic Management Building and Sustaining Competitive Advantage", Thomson, India
- Porter, M.E., Competitive Advantage: Creating and Sustaining Superior Performance, Free Press, New York.

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MBA 923-18 Integrated Marketing Communication and Sales Management

Course Objective: This course will help the students to understand the principles and practices of marketing communication, tools used by marketers to inform consumers and

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to provide a managerial framework for integrated marketing communications planning as well as sales management.

Course Outcomes: After successfully completing this course, students will be able to: CO1: Apply the key terms, definitions, and concepts used in integrated marketing communications.

CO2: Conduct and evaluate marketing research and apply these findings to develop competitive IMC Programme.

CO3: Examine the role of various promotional strategies such as advertising, direct marketing, sales promotion and PR in effectiveness of marketing communication.

CO4: Understand and apply the concepts of sales management and organization.

CO5: Develop sales related marketing policies such as product policies, distribution policies & pricing policies.

CO6: Explain various sales operations such as sales budget, sales territories, sales Quota's, control of sales, sales meeting and sales contest, organizing display, showroom and exhibition.

UNIT I

Role of IMC in marketing process: IMC planning model, IMC components. Communication process, steps involved in developing IMC programme, Effectiveness of marketing communications, Purpose, Functions, Types of IMC. Advertising management: Advertising appeals, advertising designs, Advertising agencies, Advertising Budgeting, Media planning and evaluation, Media strategy: Creativity, Elements of creative strategies and its implementation.

UNIT II

Direct Marketing: Features, Advantages/Disadvantages, strategies in Direct Marketing Promotion: Meaning, Importance, tools used, push pull strategies, Publicity/ Public relations: Meaning, Objectives, strategies and tools of public relations. Corporate Advertising Role, Types, Limitations, Monitoring, Evaluation and control: Measurement in advertising, various methods used for evaluation, Pre-testing, Post testing. International Advertising: Global environment in advertising, Internet advertising: Meaning, Components, Advantages and Limitations, Types of Internet advertising.

Unit- III

Sales Management and Organization: Objectives of sales management, sales executive as a coordinator, sales management and control, sales organization - it's purpose, setting up a sales organization, types of sales organization. Objectives and theories of personal selling, analyzing market potential, sales potential and sales forecasting method & evaluation, determining sales related marketing policies - product policies, distribution policies & pricing policies.

Unit- IV

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Sales Operations: Sales budget, sales territories, sales Quota's, control of sales, sales meeting and sales contest, organizing display, showroom and exhibition. Sales manager- Qualities and functions, types of salesman, psychology of customers.

Note: Relevant Case Studies should be discussed in class.

Suggested Readings

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- Kenneth . E. Clow and Donald Baack, "Integrated Advertising, Promotion and Marketing Communication", Prentice Hall of India
- 2. Philip j. Kitchen and Patrick D. Pelsmacker, "Integrated Marketing Communication- A Primer", Routledge London.
- Spiro, Stanton and Rich "Management of a Salesforce", Tata McGraw Hill; 11th Edition.
- 4. Richard R Still, Cundiff W Edward Govoni A P Norman, "Sales Management: Decision Strategy and Cases", Pearson Education; 5th Edition.
- Mark W. Johnston & Greg W. Marshall, 'Sales Force Management', Tata McGraw-Hill
- 6. Rosenbloom, Bert, 'Marketing Channels: A Management View', Cengage Learning,
- Havaldar, K. K. and Cavale, VM. 'Sales and Distribution Management', Tata McGraw Hill,
- 8. Chunawalla, S.A. Sales and Distribution Management, Himalaya Publishing House

MBA 924-18 Retail Management

Course Objectives: This course enables students to understand the evolution of retailing and the strategic role of retailing in the distribution of consumer goods and services. The content of the course is useful for students interested in a retail career, working for companies that interface with retailers, or interested in owning or running a retail business.

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Course Outcomes: After studying this course, the students should be able to:

CO1: Understand opportunities and challenges in retail management and retail management decision process.

CO2: Examine various types of retail formats and comprehend the application of theories of retail development on business models in retail.

CO3: Discuss and apply various function of store management.

CO4: Recognize the importance of store design and apply the concepts of store design to determine store layout and merchandising.

CO5: Understand the importance of customer service in improving retail service qualities.

CO6: Describe the applications of IT in retailing.

Unit - I

Introduction to Retailing: Economic Significance, Opportunities in Retailing, Retail Management Decision Process

Retailing in India: Evolution of Retail in India, Drivers of Retail Change and Challenges to Retail Development in India.

Unit-II

Types of retailers: Food Retailers, General Merchandise Retailers, Non-Store Retail Formats, Services Retailing, Types of Ownership.

Retail Models & Theories of Retail Development: Evolution of Retail Formats, Theories of Retail Development, Concept of Life cycle in Retail, Business Models in Retail

Unit-III

Managing the Store: Store Management Responsibilities, Recruiting & Selecting Store

Employees, Socializing & Training New Store Employees Motivating, Managing & Evaluating Store Employees.

Store Layout, Design & Visual Merchandising: Objectives of Good Store Design, Store Layout. Space Planning and Merchandise Presentation Techniques. Atmospherics.

Unit-IV

Customer Service: Strategic Advantages Through Customer Service, Customer Evaluation of Service Quality, GAPS Model for improving Retail Service Quality. Application of IT to Retailing: Growing Role of IT in Retailing, IT for Competitive Advantage, Data Mining, Database Marketing, Business Intelligence. International Retailing: International Retail Structures, MotiChain Integration.

Note: Relevant Case Studies should be discussed in class.

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Suggested Readings:

1. Levy, Michael and Barton A. Weitz (2003), Retail Management, Tata McGraw Hill, 5th

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Edition.

2. Sinha, P. K. and Uniyal, D. P. (2007), Managing Retailing, Oxford, 1st Edition.

3. Newman, Andrew J. and Peter Cullen (2007), Retailing: Environment and Operations, Thomson,

4. 1st Edition.

5. Pradhan, Swapna (2007), Retail Management - Text and Cases, Tata McGraw Hill, 2nd

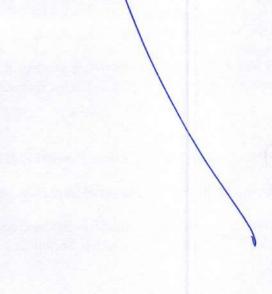
Edition.

6. Cox, Roger and Paul Brittain (2004), Retailing - An Introduction, Pearson Education, 5th

Edition.

7. Gilbert, David (1999) Retail Marketing Management, Prentice Hall, 1st Edition.

8. Dunne, Patrick M; Robert F. Lusch and David Griffith (2002), Retailing, Thomson



MBA 925-18 International and Social Media Marketing

Course Objectives: The course aims at acquainting students with the concepts and procedures for international marketing and trains them to develop and implement plans and strategies for entering international markets and managing overseas operations. The course also helps students to understand the basics in Social Media Marketing and Blogging.

Course Outcomes: After successfully completing this course, students will be able to: CO1: Assess the challenges in international marketing and understand various international market entry strategies.

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CO2: Evaluate international marketing environment and identify various international trade barriers and regional blocks.

CO3: Develop international product, pricing and communication policy and examine international distribution system.

CO4: Discuss the evolution of social media marketing and identify various benefits and applications of social media.

CO5: Explain how to develop effective social media marketing strategies for various types of industries and businesses.

CO6: Describe the major social media marketing portals that can be used to promote a company, brand, product, service or person.

Unit-I

Definition and challenges of international marketing, Reasons for going international, International Market Segmentation and Positioning; International Market Entry Strategies: Screening and Selection of Markets; Methods to enter International markets. International Marketing environment: political, legal, environmental, socio Cultural and Technological environment, Country Risk Analysis, International Economic environment: IMF, WTO, International Monetary System, International Trade Barriers: Tariff and Non-Tariff. Regional Blocks: European Union, NAFTA, SAARC, ASEAN, International Marketing Research.

Unit-II

EXIM policy of India, export promotion organizations, incentives, Export documents. organisation and structure of export and import houses. International product and pricing policies: Product standardization & adaptation, international pricing strategies. International distribution system: International distribution channels, types, role of internet in international distribution International communication policy: communication strategies in international marketing, international promotion mix.

Unit III

Introduction to Social Media Marketing: Evolution, from traditional to Modern marketing, Rise of internet and E concepts. Emergence of social media marketing as a tool. Social media Channels: Types and models, Social media benefits and applications. Social media marketing framework. Consumer behavior on the Internet: Basics, evolution of the digital consumer, managing consumer demand. IMC. Social media marketing strategies: Introduction, defining social media marketing mix, social media marketing planning, social media marketing marketing channels.

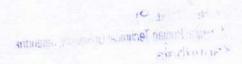
Unit IV

Social media marketing campaign: Elements of marketing campaigns, implementing social media marketing campaigns, SEM, SEO, Content marketing, Social media execution, campaign analytics and ROI, Managing social media marketing revenue: social media marketing revenue sources, managing service delivery and payments, Emerging trends in social media marketing: Big data, IOT, Content Creation and Sharing: Blogging, micro blogging, Streaming Video, Podcasts, and Webinars.

Note: Relevant Case Studies should be discussed in class.

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Suggested readings

- Czinkota M, Ronkaine I, Sutton Brady, C. and Beal, T. International Marketing, Cengage Learning.
- 2. Cherunilam F, International Trade & Export Management, Himalaya Publishing.
- 3. Cateora & Graham, International Marketing, McGraw Hill.
- 4. Dan Zarella, Social media marketing, O reilly.
- 5. R Solomon and Tracy, Social Media Marketing: Pearson New International Edition

MBA 926-18 Product and Brand Management

Course Objective: To create understanding among students for concepts, process, techniques of product and management. The course also aims to familiarize students with the concept of a 'brand', the role of branding in marketing strategy; brand equity, its importance and measurement, how to create and retain brand equity; operational aspects of brand management.

Course Outcomes: After studying this course, the students should be able to: CO1: Understand what a product is, the various levels which make it up, and different types of products.

CO2: Examine various challenges and issues involved in product planning and development.

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CO3: Discuss and apply the concepts of test marketing and market entry of a product.

CO4: Recognize the features and importance of a brand and conduct branding research.

CO5: Understand the concept of brand loyalty and measuring brand performance.

CO6: Describe the role of various branding strategies in brand equity management.

Unit I

Product management: meaning, importance of the product manager's job, planning and control systems for product management, product portfolio planning and analysis, Mapping, understanding company product/brands and competitive brand market position, Impact of global forces on products.

Unit II

Product planning and development: Meaning, objectives, Strategic reasons, processes challenges and issues, Forecasting demand, Estimating market opportunity, test marketing, types, design issues, Evaluation of test marketing results, Market entry decisions - Launching new product programs, National launching of new products, Tracking the launch, absorbing the new product in the mix.

Unit III

Basic understanding of brands: concepts and process, significance of a brand, brand mark and trade mark, Different types of brand: family brand, individual brand, private brand, Co-branding, selecting a brand name. Functions of a brand: branding decisions, influencing factors. Understanding customer-cased brand equity. Monitoring brand performance. Branding research: Designing and implementing branding research, Brand design and structures.

Unit IV

Brand loyalty: loyalty programs, Building strong brands. Measuring brand performance, Brand extensions. Brand Equity Management: Brand Equity Measurement, Brand Leverage, Global Branding strategies, Brand Audit, Role of Brand Manager, Branding challenges & opportunities. Brand rejuvenation and re-launch, brand development through acquisition takes over and merger, relaunching the brand, need, methods and success rate

Note: Relevant Case Studies should be discussed in class.

Suggested readings:

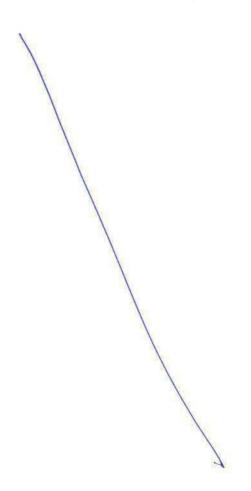
- 1. Keller, Kevin Lane, Strategic Brand Management: Building, Measuring and Managing Brand Equity, Prentice Hall of India, Third Edition, (2008).
- 2. Aaker, David A., Managing Brand Equity: The Free Press, (1991).
- 3. Kapferer, Jean-Noel, The New Strategic Brand Management, Kogan Page 3rd Edition, (2008).
- 4. Sengupta, Subroto, Brand Positioning, Tata McGraw-Hill Publishing, 2nd Edition, (2005).

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5. Venugopal 'Product and Brand Management' Himalaya Publications



MBA 913-18 Behavioural Finance

Course Objective: The primary objective of the course is to make the students understand how behavioural bias affects the classical financial theory.

Course Outcomes: After studying this course, the students should be able to:

CO1: Understand and differentiate between different theories of behavioural finance.

CO2: Examine the concepts of bounded rationality.

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CO3: Discuss various anomalies in the market giving rise to behavioural bias.

CO4: Describe the basis of behavioural bias of professional investors trading in market.

CO5: Understand the concept of market efficiency and will be able to relate it with the concept of behavioural finance.

CO6: Describe the challenges to the efficient market hypothesis

Unit I

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Introduction: Meaning, features and scope of behavioural finance. Rational Expectations Paradigm and the Behavioural Challenge

Theories of Behavioural Finance: Agency theory, Prospect theory, Reasoned emotions; Overreaction and optimism, Rationality to psychology, Neo-classical finance and Efficient Market Hypothesis

Unit II

BEHAVIOURAL ASPECTS OF INVESTING: Heuristics and Biases, Self-deception, Emotional Factors and Social Forces and Neuro-scientific and Biological Perspective, Small / Medium / Large firm effect, Momentum Vs Reversal, Noise trader risk in financial market, Attitude to risk, Expected utility, Mental accounting, Over confidence, Emotion and reasoning, Excessive risk taking, Behavioural explanation for anomalies, Excessive volatility, Loss aversion, Gamblers' fallacy

Unit III

Investor behaviour: Types of investors – on the basis of risk appetite and investment exposure, Conformity, Contrarian investing, Social forces selfishness or altruism, Group psychology on Board, Resistance to recognising failure, Conflict of interest. Value investing and growth investing. Stock market bubbles.

Unit IV

Model of Investor Sentiment Market Efficiency and Biases in Brokerage Recommendations Evidence on the Characteristics of Cross-sectional Variation in Stock Returns Behavioural Corporate Finance and Wisdom from Other Sources

Suggested Readings:

- 1. Chandra, P. (2017) 'Behavioural Finance', McGraw Hill.
- 2. Parikh, P (2017), 'Value Investing and Behavioural Finance: Insights into Indian Stock Market Realities', Tata McGraw Hill.
- 3. Davies, G. B. and Servigny, A. D. (2010), 'Behavioural Investment Management: An Efficient Alternative to Modern Portfolio Theory', McGraw Hill.
- 4. Forbes, W. (2011), 'Behavioural Finance', John Wiley and Sons Ltd.
- 5. Sulphey, M. M. (2014), 'Behavioural Finance', PHI Learning.
- Ackert, L. F. and Deaves, R. (2012), 'Understanding Behavioural Finance', Cengage Learning.

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7. Graham, B. (2013), 'The Intelligent Investor' Harper and Brothers.

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MBA 914-18 Mergers, Acquisitions and Corporate Restructuring

COURSE OBJECTIVE: The main objective of this course is to enable the students to understand, evaluate, and interpret the significance of Mergers. Acquisitions and Corporate Restructuring in the current global business environment, and enable them to appreciate how these strategic decisions are affected by various issues like valuation, regulatory environment and methods of payment.

Course Outcomes:

- 1) To explain the popularity of merger and acquisition strategies in firms competing in the global economy.
- 2) To describe the reasons why firms use an acquisition strategy to achieve strategic competitiveness.
- 3) To describe the issues that are significant in valuation decisions, and the factors which work against achieving success when using an acquisition strategy.
- 4) To define the restructuring strategy and distinguish among its common forms.
- 5) To explain the regulatory aspects of mergers, acquisitions and corporate restructuring.

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Introduction to Mergers, Acquisitions and Corporate Restructuring: Evolution, Need and Reasons/Motives for Mergers and Acquisitions. Forms of Corporate Restructuring. Mergers and Acquisitions as Strategic Choice. Evaluation of Strategic Alternatives. Value Creation in Mergers and Acquisitions. Takeover Defence Strategies. Reasons for Failures of Mergers and Acquisitions.

UNIT-II

Demerger, Reverse Merger and Buyback of Shares. Strategic Alliances: Types, Structure and Problems in Strategic Alliances. LBO(Leveraged Buy Out): Characteristics, Categories, Financing. Types of LBO Sponsor. Restructuring of Sick Companies. Deal Valuation in Mergers and Acquisitions: Factors affecting valuation, Valuation Basics. Valuation of Intangibles.

UNIT-III

Methods of Payment and Financing Options in Mergers and Acquisitions. Impact on EPS(Earning Per Share). Determinants of Mergers and Acquisitions Financing Decisions. Accounting Aspects of Mergers and Acquisitions. Impact of Mergers and Acquisitions on Shareholder Wealth.

UNIT-IV

Tax Implications of Mergers and Acquisitions. The Process of Integration in Mergers and Acquisitions. International Mergers and Acquisitions: Motivations, Strategies and its Execution. Due Diligence in Mergers and Acquisitions. Regulatory Aspects of Mergers and Acquisitions

Suggested Readings:

- Aurora, Rajinder S, Shetty, Kavita and Kale, Sharad, "Mergers and Acquisitions(2011)"Oxford Higher Education.
- Kar,Rabi Narayan(2017), "Mergers, Acquisitions and Corporate Restructuring-Strategies and Practices",3rd Edition, International Book House Pvt. Ltd., New Delhi.
- 3. Krishnamurti, Chandrashekar and Vishwanath, S R(2018), "Mergers, Acquisitions and Corporate Restructuring: Text and Cases", SAGE Publications.
- 4. Kapil, Sheeba & Kapil, Kanwal N. (2018), "Mergers and Acquisitions: Strategy, Valuation, Leveraged Buyouts and Financing" Wiley Publications.
- 5. Prasad G. Godbole (2013),"Mergers, Acquisitions and Corporate Restructuring", Vikas Publishing House.
- Sharma, Dr. Manu(2015), "Mergers, Acquisitions and Corporate Valuation", Dreamtech Press.
- 7. Sudarsanam, S(2016), "Creating Value from Mergers and Acquisitions", Pearson Education.

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MBA 915-18 International Finance and Financial Derivatives

Course Objective: The primary objective of the course is to familiarize the students with the different aspects of finance in respect of international trading and investing and to equip them with the trading framework of different types of derivative contracts.

Course Outcomes: After studying this course, the students should be able to:

CO1: Understand the framework of international exchange rate system including factors influencing exchange rates.

CO2: Discuss the basics of different types of derivative contracts like futures, options and swaps.

CO3: Understand various types of risks / exposures in forex trading and their management.

CO4: Describe various theories underlying the concepts of international finance.

CO5: Understand trading strategies using options contracts.

CO6: Describe the regulatory framework of derivatives contracts in India.

Unit I

International Finance: An overview, importance, nature and scope, recent changes and challenges in IFM. International flow of funds: Balance of Payments (BoP),

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Fundamentals of BOP, Accounting components of BOP, Factors affecting international trade flows, Agencies that facilitate International flows. **International Monetary System:** Evolution, Gold Standard, Bretton Woods system, the flexible exchange rate regime, the current exchange rate arrangements, the Economic and Monetary Union (EMU).

Foreign Exchange Market: Function and Structure of the Forex markets, Major participants, Types of transactions and settlements dates, Foreign exchange quotations, Factors influencing foreign exchange rates.

Unit II

Parity Conditions in International Finance and Currency Forecasting: PPP, the Fisher effect, The International Fisher Effect, Interest Rate parity Theory, The relationship between forward and future spot rate.

International Sources of Finance: Long Term- International Capital Markets (ADR's, GDR's), Foreign Bond Market, Foreign Banks, Euro Markets, World Bank and IMF. Short Term: Banker's Acceptance, Discounting, Factoring, Forfating, EXIM Bank of India

Unit III

Derivatives: Meaning, Types, Importance, Principles and regulatory framework in India

Forward and Futures Contracts: Meaning, Difference between forward and futures contracts, pricing of futures contracts, determinants of value of futures contracts, Markto-Market, Payoffs of futures contracts. Speculation, Hedging and Arbitrage by using futures contracts.

Options Contracts: Meaning, type, importance, Black-Scholes Model for pricing options contracts, factors determining option prices, Payoffs of Call Option and Put Option contracts, Put-Call Parity. **Option Trading Strategies:** Covered call writing, protective puts, Straddles, Strangles, Strips, Straps, Spreads including butterfly spreads, calendar spreads etc.

Unit IV

Swaps and Swaptions: Meaning, types, importance and pricing of swaps and Swaptions. Factors determining price of swaps and Swaptions.

Credit Derivatives: Meaning, Importance, pricing models and strategies to hedge by using credit derivatives.

Foreign Exchange Risk Management: Measuring and managing Transaction exposure, Measuring and Managing Economic exposure, and Measuring and Managing translation exposure, Country Risk Analysis, Foreign Exchange and Derivative Markets: Currency Futures and option Markets, Swap and Interest rate derivatives.

Suggested Readings:

1. P. G. Apte, International Financial Management, Tata McGraw-Hill, New Delhi.

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- 2. Alan C. Shapiro, Multinational Financial Management, Prentice Hall India Private
- 3. Jeff Madura, International Financial Management, Thomson Publications.
- 4. Maurice D. Levi, International Finance, Tata McGraw-Hill, New Delhi.
- 5. S. Eun Choel and Risnick Bruce, International Financial Management, Tata McGraw
- 6. Hill, Hull, John C.: Options, Futures and Other Derivatives, Prentice Hall of India
- 7. Walmsley, Julian: New Financial Instruments, Prentice Hall of India
- 8. Marshall, John F. and Bansal, Vipul K.: Financial Engineering, Prentice Hall of
- 9. Strong, Robert A.: Derivatives An Introduction, Thomson South-Western
- 10. Kumar, S.S.S: Financial Derivatives, Prentice Hall of India

MBA 916-18 Taxation and Personal Financial Planning

Course Objective - To enable the students to understand the importance of tax management and various methods available for tax planning. This course also aims to acquaint students with the importance and methods for personal financial planning.

Course Outcomes:

CO1 - The students will be familiarised with the concepts of tax management, tax avoidance and tax evasion and the methods of ways of tax planning.

CO2 - To acquaint students with the provision of the current finance act with regard to various head of income.

CO3 – To enable students to compute the tax liability of individuals after considering their residential status, various exempted incomes, permissible deduction, clubbing of income and setting off of losses.

CO4 – To familiarise students with the concept, objectives and importance of personal financial planning and enable the students to understand the implications of environmental factors and time value of money on the personal financial statements.

CO5 - To enable students to identify various types of risks any individual is exposed to and how they can hedge diversifiable risk.

CO6 - To familiarise students with various instruments available for investment by an individual for achieving their personal financial goals

UNIT I:

Tax Management: Introduction to tax management, features and scope of tax management. Differentiate between tax planning, tax avoidance and tax evasion. Tax Planning: Meaning, need, scope, objectives and methods of tax planning.

UNIT II:

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Tax planning for Five Heads of Income: Income from salary, house property, profits and gains from business or profession, capital gains and income from other sources. Tax Planning with reference to Residential status, exempted incomes, permissible deductions, clubbing of income and setting off & carry forward of losses.

UNIT III:

Personal Financial Planning: Introduction, features, objectives and scope of personal financial planning.

Environmental Analysis: Screening and analysis of environmental factors affecting personal financial planning.

Time Value of Money and Personal Financial Statements: Meaning and calculation of present value and future value of money. Factors affecting the time value of money and its impact on the personal financial statements.

UNIT IV:

Personal Risk Management: Meaning of risk, measurement of risk and its identification (Risk taker, moderate risk taker, risk averter), introduction to life insurance and general insurance, differentiate between life insurance and investment. Insurance planning for the individual as well as family.

Investment Planning: Meaning and process of investment planning. Investment Planning objectives – Retirement planning, tax saving, capital growth, liquidity and safety

Investment Instruments for Personal Financial Management: Tax saving instruments (all investments covered u/s 80C like, Provident fund, PPF, ELSS, NPS etc.), Mutual fund schemes (open ended and closed ended; growth and dividend schemes), Fixed income securities (Government bonds, corporate debt securities, bank deposits, fixed income plans by mutual funds, post office saving schemes etc.), Capital market instruments (Equity shares, Preference shares, Debentures, Long-term Government as well as corporate securities, Derivatives etc.), Money market instruments (T-bills, Commercial papers, certificate of deposits etc.) and Real Assets (like Real estate, precious metals, antiques etc.).

Suggested Readings:

- Mehrotra, H. C. and Goyal, S. P., 'Income Tax: Tax Planning and Management' Sahitya Bhawan Publications.
- 2. Singhania V.K., 'Direct Taxes: Law and Practice', Taxmann Publications
- 3. Ahuja, G. and Gupta, R., 'Practical Approach to Direct and Indirect Taxes: Containing Income Tax and GST', Wolters Kulwer

Gaur, V. P. and Narang, D. B., 'Income Tax Law and Practice'

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MBA 933-18 International Human Resource Management

Course Objective: This course provides an understanding of the role of human resource management (HRM) in international contexts. The course is divided into three areas of study: the context of international HRM, strategic and functional HRM in international contexts, and comparative international contexts.

Course Outcomes:

CO1: Understand issues, opportunities and challenges pertaining to international HRM.

CO2: Develop competency in dealing with cross cultural situations.

CO3: Understand the strategic and functional roles of HRM in various international especially in areas such as recruitment and selection, performance career management, learning development, and management, training, compensation, motivation and repatriation;

CO4: Identify the role of cross cultural leadership in managing multicultural teams. CO5: Understand external forces (e.g. globalisation, sociocultural changes, political

and economic changes) that have the potential to shape international HRM.

CO6: Develop generic and transferable skills-especially in diagnosing international HRM issues critically and analytically and discussing specific cases relating to international HRM.

Unit-I

International Human Resource Management: Concept, Difference between Domestic and International HRM, Variables that moderate difference between Domestic and International HRM.

Sustaining International Business Operations: Approaches to Staffing, Transferring Staff for International Business Activities, Role of Expatriates and Non-Expatriates, Role of the Corporate HR function.

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Recruiting and Selection Staff for International Assignments: Concepts, Issues in Staff Selection, Factors Moderating Performance, Selection Criteria, Dual Career Couples and Role of Women in International Management.

Unit-II

Re-entry and Career Issues: Concept and Repatriation Process, Individual Reactions to Re-entry, Multinational Responses, Designing a Repatriation Program.

Training and Development: Concept, Role of Expatriate Training, Expatriates or Local Managers, Components of Effective Predeparture Training Programs, Effective of Pre-Departure Training, Developing Staff through International Assignments. Staffing and Training for Global Operations, Global Staffing Choices, Dynamics of Cross-Cultural leadership, managing and motivating multi culture Teams.

Unit -III

Performance Management: Concept, Multinational Performance Management, Performance

Management of International Employees, Performance of Appraisal of International Employees.

Compensation: Concept and Objectives of International Compensation, Key Components of an International Compensation Program, Approaches to International Compensation.

Unit-IV

Knowledge Transfer within a Multinational Company: Organizational Knowledge and its Significance, Sources of Organizational Knowledge; Tacit and Explicit Knowledge; HRM and Organizational Knowledge; Transfer of Knowledge between and within organizations, Transfer of Knowledge within MNCs, Transfer of Knowledge across National Borders, Transfer of Managerial Know-how and HRM across National Borders.

Industrial Relations: Key issues in International Industrial Relations, Trade Union and International Industrial Relations, Responses of Trade Unions to Multinationals; Regional Integration: the European Union, Issue of Social Dumping, Impact of Digital Economy. National Context of HRM: HRM Practices in Japan, United Kingdom, United States, India and China.

Note: Relevant Case Studies should be discussed in class.

Suggested Readings: -

- 1. Peter, J. Dowling and Denice, E. Welch (2007), International Human Resource Management, Thomson Publishers, New Delhi.
- 2. K .Aswathappa (2012) International Human Resource Management, McGraw Hill, New Delhi.

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- Monir H. Tayeb (2004), International Human Resource Management A Multinational Company Perspective, Oxford University Press, New Delhi
- Anne-Wil Harzing and Joris Van Ruysseveldt (1995), International Human Resource Management, SAGE Publications, New Delhi.
- 5. Ian Beardwell and Len Holdon (2001), HRM: A Contemporary Perspective, McMillan, New Delhi.

MBA 934-18 Strategic Human Resource Management

Course Objective: The aim of this course is to help students to understanding the strategic approach to human resources as distinguished from the traditional functional approach, understanding the relationship of HR strategy with overall corporate strategy, strategic role of specific HR systems and appreciating SHRM in the context of changing form of organizations in the global environment.

Course Outcomes:

Upon completion of this course, students will be able to:

- CO1: Understand an integrated approach to the development of HR strategies that enable the organization to achieve its goals.
- CO2: Describe the process of strategic HRM.
- CO3: Discuss the strategic role of HR systems such as strategic staffing, strategic appraisal, strategic reward system etc.
- CO4: Explain various human aspects of strategy implementation.
- CO5: Identify the role of leadership in implementing strategic change.
- CO6: Understand Global HRM and role of global HRM in successful implementation of MNC strategy

Unit-I

Strategic HRM: Introduction to business and corporate strategies; Integrating HR strategies with

business strategies, Analyzing HR Practices followed by different firms-Human Resource System-HR as a Strategic Partner. Strategic HRM: Scope and process of strategic HRM, traditional vs. strategic HR, typology of HR activities, best fit approach vs best practice approach, the role of national context, sectoral context and organizational context in HR strategy and practices, external and internal analysis for strategic HR management.

Unit-II

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Strategic role of HR systems - Strategic staffing, strategic appraisal, strategic executive appraisal, strategic design of reward system, performance management strategies, integrating HR strategy and business strategy, HR strategies and practices in Indian industries and service sector, HR as distinctive competitive advantage, reward and compensation strategies, retrenchment strategies, downsizing strategies. Human Resource Environment- Technology, structure; Workforce diversity; Demographic changes, Temporary & contract labour; Recruitment & Retention strategies, training & development strategies.

Unit-III

Human aspects of strategy implementation: behavioural issues in strategic implementation - matching culture with strategy, leadership factor in strategy and implementing strategic change, HR strategy evaluation and control, IT and future directions in HR strategy, HR strategy in workforce diversity, employee engagement strategies, talent management and retention strategies

Unit-IV

Global HRM: Role of global HRM in successful MNC strategy, HR planning for global demand and diversity at workplace, global staffing approaches - polycentric, ethnocentric, geocentric and region centric, recruitment and selection of human resources for global assignments, training and development imperatives for global workforce, expatriate problems and culture shock, repatriation issues, performance and compensation management for global workforce, global employee relations.

Note: Relevant Case Studies should be discussed in class.

Suggested Readings:

- Dreher, Dougherty, G.F. & Thomas, W. (2005) Human Resource Strategy, Tata McGraw Hill.
- 2. Agarwal, Tanuja, (2007), "Strategic Human Resource Management", Oxford University Press, New Delhi.
- 3. Armstrong, M. & Baron, A. (2002) Handbook of Strategic HRM The Key to Improved Business Performance, Jaico Publishing House.
- 4. Becker, B.E.(2001) The HR Scorecard: Linking People, Strategy & Performance, Harward Bussiness School Press.
- 5. Greer, C.R.(2001) Strategic Human Resource Management: A General Managerial Approach, Pearson Education Asia.
- 6. Holbeche, L.(2009) Aligning Human Resource and Business Strategy, Butterworth Heinemann.
- 7. Salaman, G.(2005) Strategic Human Resource Management Theory and Practice, Sage Publications Ltd.

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MBA 935-18 Leadership and Team Dynamics

Course Objective: This course is designed to be an interactive exploration of team dynamics and leadership. Through the introduction of current theories and models, students will learn to work effectively in groups, increase their understanding of leadership, make effective decisions, and stimulate the development of new skills through demonstration and practice.

Course Outcomes:

CO1: Understand the history of leadership and current leadership theories.

CO2: Explain how leadership models are put into practice personally, locally, and globally.

CO3: Discuss the knowledge of developing leadership abilities.

CO3: Describe the concept of Strategic Leadership and ethical leadership.

CO4: Explain composition, formation, and development of teams.

CO6: Illustrate the dynamics of team Performance and motivation and the role of leadership in dynamics of team management and decision making.

Unit -I

Leadership: Meaning, definitions, Skills and Roles of a leader, analysis of leadership theory: Leadership traits and ethics: Personality traits and leadership, Leadership attitudes, ethical leadership. Leadership behavior and motivation, contingency leadership. Understanding the inspiration, dilemmas and issues in becoming a leader.

Unit -II

Leadership theories and styles, charismatic and transformational leadership, team leadership, organizational Leadership, strategic leadership, Leadership for Creating high performance culture, Leadership development through self-awareness and self-discipline. Development through education, experience and mentoring, Succession, Evaluation of leadership development efforts, leadership communication.

Unit-III

Strategic leadership, ethical leadership, the leader as social architect-creating vision and strategic direction, shaping culture and values, designing and leading a learning

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organisation, leading change, spiritual foundations of personal effectiveness, the habits of highly effective people.

Unit -IV

Team composition, formation, and development-Team Performance and Motivation-Team Conflict and Leadership-Team Decision Making , Discovering the interpersonal orientation through FIRO-B, Experiential learning methodologies-T- group sensitivity training, encounter groups, appreciative enquiry, Discovering facets of interpersonal trust through Johari window, communication skills, Negotiation skills and strategies for team building, , team morale, conflict resolution in teams, competitive vs collaborative behavior, developing collaboration.

Note: Relevant Case Studies should be discussed in class.

Suggested Readings: -

1. Richard L.Hughes (2018), Leadership, McGraw-Hill. ed. 8

 Bass, B.M. (1973) Leadership, Psychology and Organizational Behaviour, Greenwood Pub Group.

3. Northouse, P.G.(2018) Leadership - Theory and Practice, Sage Publications.

4. Purohit, S. & Nayak, S. (2003) Enhancing Personal Effectiveness: Training Instruments for Students, Teachers and Parents, Tata McGraw-Hill.

5. Tannenbaum, R., Weschler, I.R. and Hansen, J. (2015) Leadership and Organization: A Behavioral Science Approach, McGraw-Hill.

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MBA 936-18 PERFORMANCE AND COMPENSATION MANAGEMENT

Course Objective: The objective of the course is to impart relevant knowledge required to perform the functions of human resource planning in an organisation and equipping seekers with comprehensive and practical skills to manage employees' performance effectively, and to understand the structure and components of wages and salaries, and the wage administration in India

Course Outcomes: After completing the course, the student shall be able to:

CO1: Increase the awareness of the process and principles of performance Management / appraisal.

CO2: Identify the negative aspects of appraisal systems and consider how these might be overcome.

CO3: Discuss performance with regard to pay awards, and whether these should, or should not be automatically related to each other.

CO4: Demonstrate a familiarity with the appeal process relating specifically to the performance review.

CO5: Illustrate different ways to strengthen the pay-for-performance link and also learn the concepts of Payment and employee benefits issues for contingent workers. CO6: Develop appropriate reward and compensation policies.

Unit -I

Performance Management - Performance management system, performance counseling, performance planning, performance appraisal, potential appraisal, problems and errors in performance appraisal. Performance monitoring, performance implementation, role of HR professionals in performance management, performance management through training and development, ethics in performance management.

Unit-II

Reviewing & Managing Performance—Performance Management and strategic planning, Alternative models for Assessing Performance-Balance score card; EFQM Model; Outcome metrics—Economic Value Added (EVA); other economic measures. Building a High-Performance Culture-Performance Management & Employee Development, Performance Management and Rewards-Ethics in Performance Management.

Unit-III

Compensation and Benefits Management: Job evaluation approach to compensation management- Bonuses- concept & methods of calculation-Pay for performance,

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competency-based pay, equity based rewards, team rewards-Reward strategy & psychological contract—Law relating to compensation-Executive compensation, Benefits administration, employee welfare and working conditions-statutory and voluntary measures.

Unit -IV

Executive compensation - Components, pay structure in India, linking salary with potential and performance, types of rewards and incentives, wage incentive schemes in India, wage incentive plans, employee benefits and services, special features of fringe benefits, benefit programmes for management and other employees, administration of benefits and services, recent trends in wages and salaries in Indian industries and service sector.

Note: Relevant Case Studies should be discussed in class.

Suggested Readings: -

1. George T. Milkovich (2009), Compensation, McGraw-Hill Ryerson.

 Goel, D. (2012) Performance Appraisal and Compensation Management: A Modern Approach, Prentice Hall of India Pvt. Ltd.

 Henderson, R.I. (2006) Compensation Management in a Knowledge Based World, Prentice Hall.

4. Henderson, R.I.(1985) Compensation Management: Rewarding Performance in the Modern Organisation, Reston Publishing Co.

 Kandula, S.R. (2006) Performance Management: Strategies, Interventions, Drivers, Prentice Hall of India.

6. Marshall, D.R.(1978) Successful Techniques for Solving Employee Compensation Problems, John Wiley & Sons.

7. Patten, T. H.(1977) Pay-Employee Compensation and Incentive plans, McGraw-Hill.

8. Rock, M. L. and Berger, L.A. (2015) Compensation Handbook: A State-of-the Art Guide Compensation Strategy and Design, McGraw-Hill.

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MB 943 - 18: Managing Software Projects

Objective: The objective of this paper is to acquaint the students with major issues and techniques of Managing Software Projects. Understanding approaches for managing and optimizing the software development process and choosing an appropriate project development methodology (e.g. waterfall, spiral, agile etc.). Applying efficient techniques for managing each phase of the systems development lifecycle

Course Outcomes: Upon completion of this course, students will be able to:

CO1: Understanding approaches for managing and optimizing the software development process

CO2: Examine contemporary software life cycle processes, activities and work products

CO3: Apply different methods to identify, analyze, and manage software project risks

CO4: Estimate software project effort, cost, and schedule for an intermediate size project

CO5: To make aware about the various software project teams in terms of roles and responsibilities and managers can plan their projects and minutely work out the cost and time overrun of projects.

Unit I

Software Development Process: Introduction to Software and Software Engineering; The Evolving Role of Software, Software: A Crisis on the Horizon and Software Myths, Software Engineering: A Layered Technology, Software Process Models, Water Fall Life Cycle Model, The Prototyping Model, The RAD Model, Evolutionary Process Models, Agile Process Model & Development, Component-Based Development, Product and Process. Choosing an appropriate Project Development Methodology.

Unit II

Managing Software Projects: Software Metrics (Process, Product and Project Metrics),
Software Project Estimations, Software Project Planning, Project Scheduling &
Tracking, Risk Analysis & Management (Risk Identification, Risk Projection, Risk
Refinement and Risk Mitigation). Software Process Improvement and Project
Management: Project planning infrastructure, process planning feasibility analysis cost
and efforts estimation, models and technique.

Unit III

Software Quality Assurance and Management: Quality Concepts and Software Quality Assurance, Software Reviews (Formal Technical Reviews), Software Reliability, The

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Quality Standards: ISO 9000, CMM, Six Sigma for SE, SQA Plan, SCM activities and Project Management Plan.

Unit IV

Project management for special classes of software project: Component-Based Software Engineering, Client/Server Software Engineering, Web Engineering, Reengineering, Computer-Aided Software Engineering (CASE), Software Process Improvement, Outsourcing and Software Project Management Standards

Note: Relevant Case Studies should be discussed in class.

Suggested Readings:

- Pankaj Jalote, "Software Project Management in Practice" Pearson publication
- Andrew Stellman and Jennifer Greene, "Applied Software Project Management",
 O'Reilly Media (2005).
- Hughes and cotterell, software project management, Tata McGraw-Hill Publication
- Pankaj Jalote, "CMM in practice", Pearson Publication
- Pankaj Jalote, "An Integrated Approach to Software Engineering", Narosa
 Publishing House
- R. Pressmen, "Software Engineering", McGraw Hill Publication

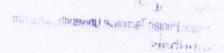
· Ian Somerville, Software Engineering, Pearson Publication

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MB 944 - 18: Managing Digital Innovation and Transformation

Objective: The objective of this paper is to acquaint the students with introduction to digital transformations and innovation and build Digital Capabilities.

Course Outcomes: Upon completion of this course, students will be able to:

CO1: Identify how Digital Transformation impacts corporate strategies

CO2: Understand Security Issues in Digital Transformations

CO3: Understand the risk associated with evolving international clients and environment

CO4: To learn Security Issues, Methods & Laws

CO5: Understanding cloud computing

Unit I

Digital transformation & Capabilities: Digital transformation myths and realities. Various Types of digital transformations: Legacy transformation, strategic transformation, cloud first transformation, digital enterprise natives, and disruption embracers. Digitization and essential elements. Digital Disruption, Important causes of digital disruption and transformation. Digital Capabilities and Challenges going to digital transformation, Social media transformation and its benefits & threats. Types of social media and its impact on the business. Role of Digital media in the enhancement of business development skills.

Unit II

Security Issues in Digital Transformations: Security Overview, Digital Threats, Fundamentals of Encryption & Cryptography, Securing E-commerce Networks: Security Protocols such as HTTP, SSL, Firewalls, Personal Firewalls, IDS, VPNs, Public Key Infrastructure (PKI) for Security

Unit III

Security Issues, Methods & Laws: Digital Signature: Digital signature Certificate; Certifying Authorities and liabilities in the event of Digital Signature Compromise; E-Governance in India. Introduction To Information Technology Act, 2000: Object; Scope; Scheme of the Act; Relevancy With Other Laws.

Unit IV

Digital Transformation Framework: Understanding cloud architecture, cloud computing vs peer- to peer architecture, cloud computing vs grid computing, cloud computing vs client server architecture, broad approaches to migrating into the cloud, seven step model

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of migration into a cloud, components of cloud computing, cloud types- private, public and hybrid; Models of Cloud Computing. Mobile cloud & Understanding cloud security

Note: Relevant Case Studies should be discussed in class. Suggested Readings:

- Neil Perkin, "Building the Agile Business through Digital Transformation"
- · Oberoi, Sundeep, "e-Security and You", Tata McGraw-Hill,
- · Kannamal, Fundamentals of Cloud Computing, Cengage Learning
- · Cady, G H and Part McGreger, "The Internet", BPB Pub.
- Carpenter Phil, "e Brands", HBS Press, Boston, 2000
- Jayaswal, Cloud Computing Black Book. Wiley

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MB 945 - 18: IT Consulting

Objective: The objective of this paper is to acquaint the students with role of IT Consulting in Business Processes. It shall enable them to understand Consulting Life Cycle, Consulting Projects, Service Level Agreements (SLA) and Ethics in Consulting.

Course Outcomes: Upon completion of this course, students will be able to understand:

CO1: To analyze the IT requirements of the organization and the underlying environment.

CO2: To advise IT solutions and services based on requirements.

CO3: To understand RFP Analysis.

CO4: To provide an understanding about SLA.

CO5: To familiar with ethics in consulting.

Unit I: Principles of Consultancy

Overview and principles of consultancy, role & competencies of the consultants; Consultancy models; Technology Management; Technology Life Cycles.

Unit II: Life Cycle of Consultancy Assignment

The Life Cycle of a consultancy Assignment: Gaining entry, Contracting and assignment initiation, Identification of problems and business needs, Diagnosis and solution definition, Solution appraisal and evaluation, Implementation and taking action. Life Cycle Assessment (LCA): Evolution, Stages in product LCA. Code of good conduct for LCA.

Unit III: Request For Proposal

Request For Proposal (RFP): Introduction, Scope of Work, Proposal Requirements, Process for Proposal Preparation and Submission, Proposal Review/Evaluation/Selection, Rules, Optional/Possible Appendices.

Service Level Agreements (SLA): Introduction, Importance, Preparation, Components of SLA. SLA Monitoring and Verification. SLA metrics, Periodic review,

Unit IV

Principles for Ethical Consulting, Different approaches to Ethic, Codes of Ethics, Consultant's Unethical and Avoiding Behaviors. Business Ethics, International business ethics, Ethics and Self-Interest, Responsibility and Accountability

Note: Relevant Case Studies should be discussed in class.

Suggested Readings:

 Narayanan, V K. Managing Technology and Innovation for Competitive Advantage. 3rd Edition, Pearson Education.

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- Peter F. Drucker, 'Social Needs and Business Opportunities', in The Frontiers of Management, 1986
- Title: The Trusted Advisor Author: David Maister, Charles Green, Robert Gallford Publisher: Free Press (Simon and Schuster) Publication Date: 2002 ISBN: 978-0743207768

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MB 946 - 18 : Strategic Management of IT

Objective: The objective of this paper is to acquaint the students with the value of IT in strategic management and its processes. This course is designed to explore an organisation's vision, mission, examine principles, techniques and models of organisational and environmental analysis, discuss the theory and practice of strategy formulation and implementation such as corporate governance and business ethics for the development of effective strategic leadership through the use of IT.

Course Outcomes: Upon completion of this course, students will be able to:

- CO1: To develop an understanding of strategic management concepts and techniques and acquire the ability to apply the same in business situations
- CO2: Learning how to use IT as a tool to implement business strategies and gain competitive advantage, not merely to support business operations.
- CO3: In addition to familiarizing students with new technological changes in management, students are expected to integrate and apply their prior learning to strategic decision making in organisations
- CO4: Integrate and apply knowledge gained in basic courses to the formulation and implementation of strategy from holistic and multi-functional perspectives.
- CO5: Analyze and evaluate critically real life company situations and develop creative solutions, using a strategic management perspective.

Unit I

Strategic Management: Role of IT and IS in Business. Introduction to Executive Support System (ESS) Importance of Decision-Making Systems in the Business Organization Structure. Planning for IT support. Types of Strategic Management Planning: The Ad Doc Approach, The Data Collection Approach, The Organization Chart Approach, The Top-down Approach and The Bottom-up Approach; Comparison of Top-Down and Bottom-up approach. Process for Strategic Management Approaches and Planning for Strategic IT Applications. Selecting the best approach and the factors playing pivotal roles in it.

Unit II

Strategic Management as Competitive Advantage: Introduction to Value Chain and Porter's Value Chain (Value Chain Model); Understanding the concept of Value Chain Analysis and the Competitive Advantage of it to the business/organization. Value Chain



Analysis and its advantages. Understanding Linkages and Interrelationships: Approach to IS/IT Strategy Formulation.

Unit III

Turning technology into business transformation. IT as a strategic source. IT as competitive: strategy, advantage and resource. Risks of Using IT Strategically; Interorganizational systems (IOS): Advantages and opportunities in strategic IT Applications. IOS and Competitive Advantage; Strategic Grid: Organizational movements around the Strategic Grid.

Unit IV

Fundamental characteristics of industrial dynamics of strategic management and IT. Visioning of the strategic role of IT in the organization. Diversification of strategies: Digital transformation, success factors and implications. Factors for organizations shifting to digital and AI transformations.

Note: Relevant Case Studies should be discussed in class.

Suggested Readings:

- S.A. Kelkar, "Strategic IT Management: A Concise Study", PHI, Eastern Economy Edition
- Sanjiva Shankar Dubey, "IT Strategy and Management", Third Edition, PHI (EEE)
- J. David Hunger, Thomas L. Wheelen, "Essentials of Strategic Management",
 5th Edition, Prentice Hall
- · L. M. Prasad, "Strategic Management", 5th Edition, Sultan Chand & Sons
- Osterhage Wolfgang W., "IT Quality Management", Springer, 2016

 Rogers David L., "The Digital Transformation Playbook", Columbia Business School Publishing, 2016

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I.K.G. Punjab Technical University MBA Batch 2018 onwards MBA 403-18 Workshop on Indian Ethos

Course Objective: The course is an attempt for the students to learn about how to apply the concepts and theories of ancient Indian management in business.

Courses Outcomes:

CO1: Comprehend and practice Indian Ethos and values system.

CO2: Applying value based management and ethical practices in business.

CO3: To gain the knowledge of management principles from Vedas and other holy books and explain the application of Indian heritage in business.

CO4: To comprehend various stress management techniques and their applications in organizations.

CO5: To describe salient features and advantages of ancient Indian system of learning. CO6: To describe various laws of Karma and explain the concept of corporate karma.

Unit 1

Indian Ethos: History & Relevance, Principles Practiced by Indian Companies, Role of Indian Ethos in Managerial Practices.

Management Lessons from Vedas, Mahabharata, Bible, Quran, Kautilya's Arthashastra, Indian Heritage in Business, Management-Production and Consumption. Ethics v/s Ethos, Indian v/s Western Management.

Unit 2

Work Ethos: Meaning, levels, dimensions and steps.

Values: Values for Indian Managers, Relevance of Value Based Management in Global Change, Impact of Values on Stakeholders. Trans-Cultural Human Values, Secular v/s Spiritual Values, Value System in Work Culture.

Unit 3

Stress Management: Meaning, types of stress at work, causes of stress, consequences of stress.

Techniques for Managing Stress: Meditation: Meaning, advantages for mental health and its importance in management. Brain storming, brain stilling, Yoga: Meaning, Significance.

Contemporary Approaches to Leadership- Joint Hindu Family Business-Leadership Qualities of Karta.

Unit 4

STILLIES

Indian Systems of Learning- Gurukul System of Learning, Advantages- Disadvantages of Karma, importance of Karma to Managers, Nishkama Karma. Laws of Karma: Law of Creation, Law of Humility, Law of Growth, Law of Responsibility, Law of Connection.

Corporate Karma: Meaning, methodologies, guidelines for good corporate karma.

I.K.G. Punjab Technical University MBA Batch 2018 onwards

Suggested Readings: -

- 1. N M Khandelwal- Indian Ethos & Values for Management- Himalya Publishing.
- 2. Tushar Agrawal and Nidhi Chandorkar- Indian Ethos in Management- Himalya Publishing.
- 3. Chakraborty, S.K., Ethics in Management-Vedantic Approach, New Delhi, Oxford India Ltd. 1995.
- 4. Dwijendra Tripathi, History of Indian Business by Publisher, Oxford University Press India, 2004.
- 5. Fernando A.C., Business Ethics: An Indian Perspective, Pearson, 2009.
- 6. Habib Irfan, The Cambridge Economic History of India, Volume 1 Cambridge University Press, 1982.
- 7. Jitatmananda Swami, Indian Ethos for Management, Rajkot, Ramakrishna Ashrama, 1996.
- 8. Kautilya's Arthasastra, King, Governance, and Law in Ancient India, Oxford University Press, 2016.

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Study Scheme & Syllabus of Bachelor of Business Administration (BBA) Batch 2018 onwards

Department of Academics
I.K. Gujral Punjab Technical University

Courses & Examination Scheme:

First Semester

Course	Course Type	Course Title	Load Allocations			Marks D	istribution	Lotal	Credits
Code		24. 有品级。25年32日	L*	T*	P	Internal	External	Marks	
BBA 101-18	Core Theory 1	Principles and Practices of Management	5	1	0	40	60	100	6
BBA 102-18	Core Theory 2	Basic Accounting	5	1	0	40	60	100	6
BBAGE101-18	General Elective 1	Managerial Economics I	5	1	0	40	60	100	6
BTHU103/18	Ability Enhancement Compulsory Course (AECC)	English		0	0	40	60	100	
BTHU104/18	Ability Enhancement Compulsory Course (AECC)	English Practical/Laboratory	0	0	2	30	20	50	1
HVPE101-18	Ability Enhancement Compulsory Course (AECC)	Human Values, De- addiction and Traffic Rules	3	0	0	40	60	100	3
HVPE102-18	Ability Enhancement Compulsory Course (AECC)	Human Values, De- addiction and Traffic Rules (Lab/ Seminar)	0	0	2	25	_**	25	1
BMPD102-18		Mentoring and Professional Development	0	0	2	25	**	25	1
The state of the s	TOTAL	Accommondation	19	3	6	280	320	600	25

**The Human Values, De-addiction and Traffic Rules (Lab/ Seminar) and Mentoring and Professional Development course will have internal evaluation only.

<u>Note:</u> One each seminar will be organized on Drug De-addiction and Traffic Rules. Eminent scholar and experts of the subject will be called for the seminar at least once during the semester. It will be binding for all students to attend the seminar.

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Second Semester

Course	Course Type	Course Title	Load	Alloca	aous	Marks D	stribution	Total	Credits
Code			L*	T*	P	Internal	External	Marks	
BBA201-18	Core Theory 3	Business Statistics	5	1	0	40	60	100	6
BBA 202-18	Core Theory 4	Business Environment	5	1	0	40	60	100	6
BBAGE201-18	General Elective 2	Managerial Economics II	5	1	0	40	60	100	6
EVS102-18	Ability Enhancement Compulsory Course (AECC) -	Environmental Studies	2	0	0	40	60	100	2
BMPD202-18		Mentoring and Professional Development	0	0	2	25	**	25	1
		TOTAL	17	3	2	195	240	425	21

Third Semester

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Course Code	Course Type	Course Title	Load	Alloca	tions	Viarks I)	istribution		Credits
Cone			L*	T*	Р	Internal	External	Marks	
BBA301-18	Core Theory 5	Organizational Behaviour	5	1	()	40	60	100	6
BBA 302-18	Core Theory 6	Marketing Management	5	1	-0	40	60	100	6
BBA 303-18	Core Theory 7	Cost & Management Accounting	5	1	0	40	60	100	6
BBAGE 301-18	General Elective 3	Production and Operation Management	5	1	0	40	60	100	6
BBASEC 301-18	Skill Enhancement Course-1	IT tools for Business	2	0	0	40	60	100	2
BMPD302-18		Mentoring and Professional Development	0	0	2	25	**	25	
	T	OTAL	22	4	2	225	300	525	27

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62823/2021/IKGPTU Main Campus Fourth Semester



Course Code	Course Type	Course Title	Load Allocations		ions Marks Distribution			Credits	
		77 77 35	L*	T*	P	Internal	External	Marks	120
BBA401-18	Core Theory 8	Business Research . Methods	5	1	0	40	60	100	6
BBA 402-18	Core Theory 9	Human Resource Management	5	1	0	40	60	100	6
BBA 403-18	Core Theory 10	Financial Management	5	1	0	40	60	100	6
BBAGE 401-18	General Elective 4	Entrepreneurship Development	5	1	0	40	60	100	6
BBASEC 401-18	Skill Enhancement Course-2	Business Ethics and Corporate Social Responsibility	2	0	0	40	60	100	2
BMPD402-18		Mentoring and Professional Development	0	0	2	25	**	25	
	Т	OTAL	22	4	2	425	300	525	27

Fifth Semester

Course	Course Type	Course Title	Load Allucations			Marks D	istribunion	Total Marks	Credits
Control of the contro		L*	T*	Р	Internal	External	WIREAS		
BBA501-18	Core Theory 11	Operation Research	5	1	0	40	60	100	6
BBA502-18	Core Theory 12	Mercantile Law	5	1	0	40	60	100	6
	Discipline Specific Elective 1	Elective – I	5	1	0	40	60	100	6
	Discipline Specific Elective 2	Elective – II	5	1	0	40	60	100	6
BMPD502-18		Mentoring and Professional Development	kilmi0,gr	0	2	25	**	25	1
		TOTAL	20	4	2	225	240	425	25

62823/2021/IKGPTU Main Campus SPECIALISATIONS

Any of the following groups each having two papers in Semester V can be chosen as specialization by the students.

1. Marketing

BBA 511-18	Consumer Behaviour
BBA 512-18	Advertising and Sales Management

2. Finance

BBA 521-18	Corporate Accounting
BBA 522-18	Financial Markets & Services

3. Human Resource Management

BBA 531-18	Industrial Relations & Labour Law
BBA 532-18	Organisation Change & Development

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Sixth Semester

Course	Course Type	Caurse Title	Course Title Load Allocations				istribution		Credits
Code		L*	T*	P	Internal	External	Marks		
BBA601-18	Core Theory 13	Strategy Management	5	1	0	40	60	100	6
BBA602-18	Core Theory 14	Company Law	5	1	0	40	60	100	6
	Discipline Specific Elective 3	Elective – III	5	1	0	40	60	100	6
	Discipline Specific Elective 4	Elective – IV	5	1 1	0	40	60	100	6
BMPD602-18		Mentoring and Professional Development	0	0	2	25	**	25	1
		TOTAL	20	4	2	185	240	425	25

SPECIALISATIONS:

Any of the following groups each having two papers in Semester VI can be chosen as specialization by the students.

1. Marketing

BBA 611-18	Services Marketing
BBA 612-18	Retailing and Logistics Management

BBA 621-18	Personal Financial Planning
BBA 622-18	Direct and Indirect Tax Laws

3. Human Resource Management

BBA-631	Training & Development
BBA-632	Cross Cultural Human Resource Management

ANDRESS, ADMISSION ASSOCIATED DESCRIPTION

Program Educational Objectives (PEOs)

PEO1: Graduates will develop expertise in the area of accounts, marketing, interpersonal skills, human resource management and entrepreneurship.

PEO2: Graduates will develop competencies in qualitative and quantitative techniques to analyse the business data.

PEO3: Graduates will develop an understanding of economic, legal and social environment of Indian business.

PEO4: Graduates will develop responsiveness to social issues and will be able to identify business solutions to address the same. They will also be able to understand the issues of business ethics.

Program Outcomes (POs)

At the end of the program the student will be able to:

PO1: Evaluate and describe contextual forces (macro and micro both) in business environment and identify their impact on business operations.

PO2: Recognise and apply various qualitative, technical and analytical methods in solving business problems.

PO3: Communicate effectively in various business settings both in written and oral formats.

PO4: Explain the responsibility of business towards development of society. Students will also be able to distinguish between ethical and unethical behaviours.

PO5: Develop strategies for effective functioning of functional areas such as marketing, strategy, finance and operations.

PO6: Apply the entrepreneurial and managerial skills for effective business management.

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BBA 101 Principles and Practices of Management

Course objective: the course aims at providing fundamental knowledge and exposure to the concepts, theories and practices in the field of management. And to facilitate the students in appreciating need/significance and applications of various managerial functions.

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1: Describe fundamental concepts, nature and principles of Management.

CO2: Explain the role and responsibilities of managers and adapt to the various styles of management across organizations.

CO3: Develop analytical abilities to face the business situations.

CO4: Apply various tools that would facilitate the decision making process in the business.

CO5: Develop peer based learning and working in groups and teams.

Unit - I

Management: Meaning, definitions, nature and scope, functions of management. Managerial roles and skills. Forms of different organizations: sole proprietorship, partnership and Joint Stock Company.

Evolution of management thoughts: classical and new classical systems, contingency approaches, Scientific management.

Unit - II

Planning: nature, purpose and functions, types of plan, Management by Objective (MBO), steps in planning.

Decision Making: Meaning, Steps in Decision Making, Techniques of Decision Making.

Strategic planning - concepts, process, importance and limitations; Growth strategies-Internal and external.

Unit - III

Organizing: Concept, formal and informal organizations, task force, bases of departmentation, different forms of organizational structures, avoiding organizational inflexibility. Teamwork - meaning, types and stages of team building.

Concept of staffing- Recruitment and Selection.

Motivation - concept, importance and theories.

Unit-IV



Authority: definition, types, responsibility and accountability, delegation, decentralization v/s centralization, determinants of effective decentralization. Line and staff authority.

Control: function, process and types of control, nature, process, significance and span of control. Direct control v/s preventive control.

Trends and challenges of management in global scenario, emerging issues in management: Introduction to Total Quality Management (TQM), Just in Time (JIT).

Suggested Textbooks:

- Principles and practices of management: L. M. PRASAD (S. Chand publishers)
- Essentials of Management: Koontz H. & Weihrich H. (Tata Mc Graw Hill Publishers)

Suggested Reference books

- Management: Stephen Robbins (Pearson publishers)
- VSP Rao & V H Krishna, Management, Excel books

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BBA 102 BASIC ACCOUNTING

Course Objective: This course aims to acquaint students with foundation of financial accountancy and its application in business. It also aims to familiarize students with regulatory framework of accounting in India.

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1: To understand the basic underlying concepts, principles and conventions of accounting.

CO2: To identify the rules of debit and credit in accounting.

CO3: To get an overview of the regulatory framework of accounting in India.

CO4: To prepare trading, profit & loss and balance sheet of a firm.

CO5: To comprehend the concept of depreciation and different methods to treat depreciation in accounting.

Unit I

Introduction to Accounting- Meaning, objectives and Scope of Financial Accounting, Concept of Book Keeping, Basic Accounting terms, users of accounting information, limitations of Financial Accounting. Accounting Concepts and Conventions.

Accounting Standards- Concept, objectives, benefits, brief review of Accounting Standards in India.

Unit II

The Accounting Equation; Types and Nature of Accounts, Rules of Debit and Credit; Accounting process: Recording Transactions in Journal; Preparation of Ledger Accounts, Subsidiary Books; Preparation of Trial Balance.

Unit III

Bank Reconciliation Statement, Depreciation: Meaning, need & importance of depreciation, methods of charging depreciation (WDV & SLM). Preparation of Final Accounts: Preparation of Trading and Profit & Loss Account and Balance Sheet of sole proprietary business

Unit IV



Introduction to Company Final Accounts: Important provisions of Companies Act, 1956 in respect of preparation of final accounts of a company. Understanding the Annual Report of a Company.

Computerised Accounting: Computers and its application in accounting. Accounting software packages

Suggested Readings:

- Maheshwari, S.N. and Maheshwari, S.K, "Financial Accounting", 2009, Vikas Publishing House, New Delhi.
- Mukherjee, A. and Hanif, M., "Financial Accounting", 1st Edition, 2003, Tata McGraw Hill.
- 3. Ramchandran, N. and Kakani, R.K., "Financial Accounting for Management", 2nd Edition, 2007, Tata McGraw Hill.
- 4. Tulsian, P.C., Financial Accounting,
- 5. Horngren, Charles T., Sundem, Gart I, Elliot, John A. Philbrick, Donna R.,
- 6. "Introduction to Financial Accounting", Prentice Hall, New Delhi.
- 7. Gupta, Ambrish, "Financial Accounting for Management: An Analytical Perspective", Pearson Education, New Delhi.
- 8. Khatri, Dhanesh, "Financial Accounting" Tata McGraw-Hill, New Delhi.

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BBA-GE 101 Managerial Economics- I

Course Objective: The primary objective of this course is to equip students with the necessary economic concepts, principles, theory and techniques and enhance their managerial decision making to address business problems in a globalized economic environment

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1: Understand the basic concepts of managerial economics and apply the economic way of thinking to individual decisions and business decisions.

CO2: Measure price elasticity of demand, understand the determinants of elasticity and apply the concepts of price, cross and income elasticity of demand.

CO3: Understand and estimate production function and Law of Diminishing Marginal Utility.

CO4: Understand and explain four basic market models of perfect competition, monopoly, monopolistic competition, and oligopoly, and how price and quantity are determined in each model.

CO5: Understand the different costs of production and how they affect short and long run decisions.

Unit-I

Introduction to Managerial Economics: Managerial Economics: Meaning, Nature, Scope & Relationship with other disciplines, Role of managerial economics in decision Making, Opportunity Cost Principle, Production Possibility Curve, Incremental Concept, Scarcity Concept.

Demand and the Firm: Demand and its Determination: Demand function; Determinants of demand; Demand elasticity - Price, Income and cross elasticity. Use of elasticity for analyzing demand, Demand estimation, Demand forecasting, Demand forecasting of new product. Indifference Curve Analysis: Meaning, Assumptions, Properties, Consumer Equilibrium, Importance of Indifference Analysis, Limitations of Indifference Theory

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Unit-II

- HECKINETY

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Production Function: Production function Meaning, Concept of productivity and technology, Short Run and long run production function Isoquants; Least cost combination of inputs, Producer's equilibrium; Return to scale; Estimation of production function.

Theory of Cost: Cost Concepts and Determinants of cost, short run and long run cost theory, Modern Theory of Cost, Relationship between cost and production function

Unit-III

Revenue Curve: Concept of Revenue, Different Types of Revenues, concept and shapes of Total Revenue, Average revenue and marginal revenue, Relationship between Total Revenue, Average revenue and marginal revenue, Elasticity of Demand and Revenue relation

Market Structure: Market Structure: Meaning, Assumptions and Equilibrium of Perfect Competition, Monopoly, Monopolistic Competition, Oligopoly: Price and output determination under collusive oligopoly, Price and output determination under non-collusive oligopoly, Price leadership model.

Unit-IV

Pricing: Pricing practices; Commodity Pricing: Economics of advertisement costs; Types of pricing practices

Factor Pricing: Demand and supply of factor of production; Collective bargaining,
Concept of rent, profit, interest- Rate of return and interest rates; Real vs. Nominal interest
rates. Basic capital theory—Interest rate and return on capital. Measurement of profit.

Note: Relevant Case Studies will be discussed in class.

Suggested Readings/ Books:

- > K.K .Dewett, Modern Economic Theory, S. Chand Publication
- D.M.Mithani, Managerial Economics Theory and Applications, Himalaya Publication
- > Peterson and Lewis, Managerial Economic, Prentice Hall of India
- Gupta, Managerial Economics, TataMcGraw Hills
- Geetika, Managerial Economics, Tata McGraw Hills
- D.N.Dwivedi, Managerial Economic, Vikas Publications
 - > Froeb, Managerial Economics, Cengage Learning

- Koutsoyiannis, A, Modern Micro Economics, Palgrave Macmillan Publishers, New Delhi.
- ➤ Thomas Christopher R., and Maurice S. Charles, Managerial Economics Concepts and Applications, 8th Edition,
- Mehta, P. L, Managerial Economics Analysis, Problems and Cases, Sultan Chand & Sons, Delhi.
- Peterson and Lewis, Managerial Economics, 4th Edition, Prentice Hall of India Pvt. Ltd., New Delhi.
- Shapiro, Macro Economics, Galgotia Publications.
- > H. L Ahuja Advanced Economic Analysis, S. Chand & Co. Ltd, New Delhi. 7.

G.S Gupta, Managerial Economics, Tata McGraw Hill.

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AECC BTHU103/18 English

Course Outcomes:

- The objective of this course is to introduce students to the theory, fundamentals and tools of communication.
- To help the students become the independent users of English language.
- To develop in them vital communication skills which are integral to their personal, social and professional interactions.
- The syllabus shall address the issues relating to the Language of communication.
- Students will become proficient in professional communication such as interviews, group discussions, office environments, important reading skills as well as writing skills such as report writing, note taking etc.

The recommended readings given at the end are only suggestive; the students and teachers have the freedom to consult other materials on various units/topics given below. Similarly, the questions in the examination will be aimed towards assessing the skills learnt by the students rather than the textual content of the recommended books.

Detailed Contents:

Unit1-1 (Introduction)

- Theory of Communication
- Types and modes of Communication

Unit-2 (Language of Communication)

- Verbal and Non-verbal
- (Spoken and Written)
- Personal, Social and Business
- Barriers and Strategies
- Intra-personal, Inter-personal and Group communication

Unit-3 (Reading and Understanding)

- Close Reading
- Comprehension
- Summary Paraphrasing
- Analysis and Interpretation
- Translation(from Hindi/Punjabi to English and vice-versa)
 OR
- Precis writing /Paraphrasing (for International Students)
- Literary/Knowledge Texts

Unit-4 (Writing Skills)

- Documenting
- Report Writing
- Making notes
- Letter writing

Recommended Readings:

1. Fluency in English - Part II, Oxford University Press, 2006.

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- 2. Business English, Pearson, 2008.
- 3. Language, Literature and Creativity, Orient Blackswan, 2013.
- 4. Language through Literature (forthcoming) ed. Dr. Gauri Mishra, DrRanjanaKaul, DrBrati Biswas
- 5. On Writing Well. William Zinsser. Harper Resource Book. 2001
- 6. Study Writing. Liz Hamp-Lyons and Ben Heasly. Cambridge University Press. 2006.

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AECC BTHU104/18 English Practical/Laboratory

Course Outcomes:

- The objective of this course is to introduce students to the theory, fundamentals and tools of communication.
- To help the students become the independent users of English language.
- To develop in them vital communication skills which are integral to personal, social and professional interactions.
- The syllabus shall address the issues relating to the Language of communication.
- Students will become proficient in professional communication such as interviews, group discussions and business office environments, important reading skills as well as writing skills such as report writing, note taking etc.

The recommended readings given at the end are only suggestive; the students and teachers have the freedom to consult other materials on various units/topics given below. Similarly, the questions in the examination will be aimed towards assessing the skills learnt by the students rather than the textual content of the recommended books.

Interactive practice sessions in Language Lab on Oral Communication

- Listening Comprehension
- Self Introduction, Group Discussion and Role Play
- Common Everyday Situations: Conversations and Dialogues
- Communication at Workplace
- Interviews
- Formal Presentations
- Monologue
- Effective Communication/ Mis- Communication
- Public Speaking

Recommended Readings:

- 1. Fluency in English Part II, Oxford University Press, 2006.
- 2. Business English, Pearson, 2008.
- 3. Practical English Usage. Michael Swan. OUP. 1995.
- 4. Communication Skills. Sanjay Kumar and PushpLata. Oxford University Press.

5. Exercises in Spoken English. Parts. I-III. CIEFL, Hyderabad. Oxford University Press

AECC

HVPE 101-18 Human Values, De-addiction and Traffic Rules

Course Objective

This introductory course input is intended

a. To help the students appreciate the essential complementarily between 'VALUES' and 'SKILLS' to ensure sustained happiness and prosperity which are the core aspirations of all human beings.

b. To facilitate the development of a Holistic perspective among students towards life, profession and happiness, based on a correct understanding of the Human reality and the rest of Existence. Such a holistic perspective forms the basis of Value based living in a natural way.

c. To highlight plausible implications of such a Holistic understanding in terms of ethical human conduct, trustful and mutually satisfying human behavior and mutually enriching interaction with Nature.

Thus, this course is intended to provide a much needed orientational input in Value Education to the young enquiring minds.

Course Methodology

- The methodology of this course is universally adaptable, involving a systematic and rational study of the human being vis-à-vis the rest of existence.
- · It is free from any dogma or value prescriptions.
- It is a process of self-investigation and self-exploration, and not of giving sermons.
 Whatever is found as truth or reality is stated as proposal and the students are
 facilitated to verify it in their own right based on their Natural Acceptance and
 Experiential Validation.
- This process of self-exploration takes the form of a dialogue between the teacher and the students to begin with, and within the student himself/herself finally.
- This self-exploration also enables them to evaluate their pre-conditionings and present beliefs.

Content for Lectures:

Module 1: Course Introduction - Need, Basic Guidelines, Content and Process for Value Education [6]

- 1. Understanding the need, basic guidelines, content and process for Value Education
- 2. Self Exploration-what is it? its content and process; 'Natural Acceptance' and Experiential Validation- as the mechanism for self exploration
- 3. Continuous Happiness and Prosperity- A look at basic Human Aspirations
- 4. Right understanding, Relationship and Physical Facilities- the basic requirements for fulfillment of aspirations of every human being with their correct priority
- 5. Understanding Happiness and Prosperity correctly- A critical appraisal of the current scenario
- 6. Method to fulfill the above human aspirations: understanding and living in harmony at various levels

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Module 2: Understanding Harmony in the Human Being - Harmony in Myself!

[6]

- 7. Understanding human being as a co-existence of the sentient 'I' and the material 'Body'
- 8. Understanding the needs of Self ('I') and 'Body' Sukh and Suvidha
- 9. Understanding the Body as an instrument of 'I' (I being the doer, seer and enjoyer)
- 10. Understanding the characteristics and activities of 'I' and harmony in 'I'
- 11. Understanding the harmony of I with the Body: Sanyam and Swasthya; correct appraisal of Physical needs, meaning of Prosperity in detail
- 12. Programs to ensure Sanyam and Swasthya
 - Practice Exercises and Case Studies will be taken up in Practice Sessions.

Module 3: Understanding Harmony in the Family and Society- Harmony in Human-Human Relationship

[6]

- 13. Understanding harmony in the Family- the basic unit of human interaction
- 14. Understanding values in human-human relationship; meaning of Nyaya and program for its fulfillment to ensure Ubhay-tripti;
 Trust (Vishwas) and Respect (Samman) as the foundational values of relationship
- 15. Understanding the meaning of Vishwas; Difference between intention and competence
- 16. Understanding the meaning of *Samman*, Difference between respect and differentiation; the other salient values in relationship
- 17. Understanding the harmony in the society (society being an extension of family): Samadhan, Samridhi, Abhay, Sah-astitva as comprehensive Human Goals
- 18. Visualizing a universal harmonious order in society- Undivided Society (Akhand Samaj), Universal Order (Sarvabhaum Vyawastha) from family to world family!
 - Practice Exercises and Case Studies will be taken up in Practice Sessions.

Module 4: Understanding Harmony in the Nature and Existence - Whole existence as Co-existence [4]

- 19. Understanding the harmony in the Nature
- 20. Interconnectedness and mutual fulfillment among the four orders of naturerecyclability and self-regulation in nature
- 21. Understanding Existence as Co-existence (Sah-astitva) of mutually interacting units in all-pervasive space
- 22. Holistic perception of harmony at all levels of existence
 - Practice Exercises and Case Studies will be taken up in Practice Sessions.

Module 5: Implications of the above Holistic Understanding of Harmony on Professional Ethics

[6]

- 23. Natural acceptance of human values
- 24. Definitiveness of Ethical Human Conduct
- 25. Basis for Humanistic Education, Humanistic Constitution and Humanistic Universal Order



- 26. Competence in professional ethics:
 - a) Ability to utilize the professional competence for augmenting universal human order,
 - b) Ability to identify the scope and characteristics of people-friendly and ecofriendly production systems,
 - c) Ability to identify and develop appropriate technologies and management patterns for above production systems.
- 27. Case studies of typical holistic technologies, management models and production systems
- 28. Strategy for transition from the present state to Universal Human Order:
 - a) At the level of individual: as socially and ecologically responsible engineers, technologists and managers
 - b) At the level of society: as mutually enriching institutions and organizations

Text Book

R R Gaur, R Sangal, G P Bagaria, 2009, A Foundation Course in Value Education.

Reference Books

- 1. Ivan Illich, 1974, Energy & Equity, The Trinity Press, Worcester, and HarperCollins, USA
- 2. E.F. Schumacher, 1973, Small is Beautiful: a study of economics as if people mattered, Blond & Briggs, Britain.
- 3. A Nagraj, 1998, Jeevan Vidya ek Parichay, Divya Path Sansthan, Amarkantak.
- 4. Sussan George, 1976, How the Other Half Dies, Penguin Press. Reprinted 1986, 1991
- 5. PL Dhar, RR Gaur, 1990, Science and Humanism, Commonwealth Purblishers.
- 6. A.N. Tripathy, 2003, Human Values, New Age International Publishers.
- 7. Subhas Palekar, 2000, *How to practice Natural Farming*, Pracheen(Vaidik) Krishi Tantra Shodh, Amravati.
- 8. Donella H. Meadows, Dennis L. Meadows, Jorgen Randers, William W. Behrens III, 1972, *Limits to Growth Club of Rome's report*, Universe Books.
- 9. E G Seebauer & Robert L. Berry, 2000, Fundamentals of Ethics for Scientists & Engineers , Oxford University Press
- 10. M Govindrajran, S Natrajan & V.S. Senthil Kumar, *Engineering Ethics (including Human Values)*, Eastern Economy Edition, Prentice Hall of India Ltd.
- 11. B P Banerjee, 2005, Foundations of Ethics and Management, Excel Books.
- 12. B L Bajpai, 2004, *Indian Ethos and Modern Management*, New Royal Book Co., Lucknow. Reprinted 2008.

Relevant CDs, Movies, Documentaries & Other Literature:

1. Value Education website, http://uhv.ac.in

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- 2. Story of Stuff, http://www.storyofstuff.com
- 3. Al Gore, An Inconvenient Truth, Paramount Classics, USA
- 4. Charlie Chaplin, Modern Times, United Artists, USA
- 5. IIT Delhi, Modern Technology the Untold Story



AECC HVPE 102-18 Human Values, De-addiction and Traffic Rules (Lab/Seminar)

One each seminar will be orgnizied on Drug De-addiction and Traffic Rules, Eminent scholar and experts of the subject will be called for the Seminar atleast once during the semester. It will be binding for all the students to attend the seminar.

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BMPD102-18 Mentoring and Professional Development

Guidelines regarding Mentoring and Professional Development

The objective of mentoring will be development of:

- Overall Personality
- Aptitude (Technical and General)
- General Awareness (Current Affairs and GK)
- Communication Skills
- Presentation Skills

The course shall be split in two sections i.e. outdoor activities and class activities. For achieving the above, suggestive list of activities to be conducted are:

Part - A (Class Activities)

- Expert and video lectures 1.
- 2. Aptitude Test
- 3. Group Discussion
- 4. Quiz (General/Technical)
- 5. Presentations by the students
- Team building Exercises 6.

Part - B (Outdoor Activities)

- 1. Sports/NSS/NCC
- 2. Field project.
- 3. Society Activities of various students chapter i.e. ISTE, SCIE, SAE, CSI, Cultural Club, etc.

Note: Evaluation shall be based on rubrics for Part - A & B. Mentors/Faculty incharges shall maintain proper record student wise of each activity conducted and the same shall be submitted to the department.

BBA 201-18 Business Statistics

Course Objective: Course Objective: The objective of the course on Business Statistics is to familiarize students with the basic statistical tools used to summarize and analyze quantitative information for decision making. Analysis of numbers is required for taking decisions related to every aspect of business.

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1: To learn the basic concepts like statistics and calculation of arithmetic mean, median and mode and partition values.

CO2: To understand the calculation of moments, skewness and kurtosis and determining whether the given distribution is normal or not.

CO3: To be acquainted with prerequisite knowledge required to understand the Probability and applications of probability theory.

CO4: To understand the concept of correlation regression analysis and their applications.

CO5: To apply the learnt techniques in statistical testing and their applications.

Unit I

Introduction to Statistics: Meaning, Definitions, Features of statistics, Importance, Functions, Scope and Limitations of Statistics.

Data Collection: Sources of Primary and Secondary data. Presentation of Data. Frequency distribution.

Sampling Concepts: Meaning of Population and Sample, Parameters and Statistics, Descriptive and Inferential Statistics, Probability and Non Probability Sampling Methods including Simple Random Sample, Stratified Sampling, Systemetic Sampling, Judgement Sampling and Convenience Sampling.

Unit II

Measures of Central Tendency: Mathematical averages including arithmetic mean, geometric mean and harmonic mean, properties and applications. Positional Averages: Mode and median (and other partition values including quartiles, deciles and percentile. Graphic presentation of measures of central tendency.

Measures of Variation: Absolute and relative measures. Range, quartile deviation, mean deviation, standard deviation and their coefficients. Properties of Standard Deviation and Variance.

Sampling Distribution: Concept of Sampling Distribution, Formulation of Sampling Distribution of Mean and Sampling distribution of statndard deviation/Variance

Unit III

Simple Correlation Analysis: Meaning of Correlation, Simple, multiple and partial, linear and non linear correlation, correlation and causation, scatter diagram, pearson's correlation coefficient and Rank Correlation.

Simple Regression Analysis: Meaning of Regression, Principle of least square and regression analysis, Calculation regression coefficient, properties of regression coefficient, Relationship between correlation and regression coefficient.

Unit IV

Theory of Probability: Meaning of Probility, Approaches to the calculation of probabability, calculation of event probabbilities, Addition and Multiplication, Laws of Probabbility (Proof not required). Conditional Probability and Bayes' Theorem (Proof not required).

Probabability Distribution: Binomial Distribution:Prbabability Distribution function, Constants, Shape .Fitting of Binomial Distribution. Poission Distribution: Probbability Function (including Poission approximation to binomial distribution) Constatuts, Fitting of Poission Distribution, Normal Distribution: Probabability Distribution Function, Properties of Normal Curve, Calculation of Probababilities.

Suggested Readings:

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- 1. Levin, Richard and David S. Rubin. "Statistics for Management". Prentice Hall of India, New Delhi.
- 2. Chandan, J.S., "Statistics for Business and Economics", Vikas Publishing House Pvt. Ltd.
- 3. Render, B. and Stair, R. M. Jr., "Quantitative Analysis for Management", Prentice-Hall of India, New Delhi.
- 4. Gupta C B, Gupta V, "An Introduction to Statistical Methods", Vikas Publications.
- 5. Siegel, Andrew F, Practical Business Statistics. International Edition, McGraw Hill
- 6. Berenson, L.M., Krehbiel, T.C., Vishwanathan, P.K. and Levine, D.M., Business Statistics: A First Course, Pearson Education.

BBA202-18 Business Environment

Course Objective: The objective of this paper is to acquaint students with the issues of business environment in which corporate sector has to operate. It will also familiarize them with the techniques available for scanning and monitoring the environment. It also aims at providing some basic knowledge about international environment pertaining to business.

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1: To Identify and evaluate the complexities of business environment and their impact on the business.

CO2: To analyze about the relationships between Government and business and understand the political, economic, legal and social policies of the country.

CO3: To understand the current economic conditions in developing emerging markets, and evaluate present and future opportunities.

CO4: To be acquainted with prerequisite knowledge required to understand the Probability and applications of probability theory.

CO5: To understand the concept of the Industrial functioning and strategies to overcome challenges in competitive markets.

Unit I

Introduction to Business Environment: Nature and Significance Business Environment. Components of Business Environment, Techniques of Environment Scanning. Economic Environment of Business: Economic Systems. Economic Planning in India, Brief idea of Industrial Policy, Fiscal policy, Monetary policy and EXIM policy.

Unit II

Political and Legal Environment of Business: Three political institutions: Legislature, Executive and Judiciary. Foreign Exchange Management Act (FEMA), Consumer Protection Act. Introduction to Liberalization, Privatization and Globalization: Factors facilitating and impeding globalization in India.

Unit III

Socio- Cultural Environment: Critical elements of socio-cultural Environment. Social responsibility of business. Business Ethics and Corporate Social Responsibility. Public Sector-Changing Role of Public Sector - Relevance of public sector - Public Sector reforms. Regulatory framework with reference to Banking and Security Market. Technological Environment.

Unit IV

International Business Environment: Multinational Corporations-Benefits and Problems. Mergers and acquisitions - reasons - trends - Advantages and Disadvantages.WTO ,Consequences of WTO for India. IMF. Regional Groupings.

SUGGESTED READINGS:

- Aswathappa, K: Essentials of Business Environment-Text, Cases and Exercises -Himalya Publishing House(13th Revised Edition-2016)
- Cherunilam, Fransis

 Business Environment

 Text and Cases ,Himalya Publishing

 House Pvt. Ltd.(20th Edition-2011)
- Paul, Justin-Business Environment- Text and Cases-McGraw Hill Education (India)
 Private Limited.(4th Revised Edition-2018)
- Ramachandara, Archana and Ravi-Business Environment. Himalya Publishing House
 Pvt. Ltd.(New Edition-2017)
- · Sheikh, Saleem and Sahu Jayadev, Business Environment, Pearson.

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BBAGE 201-18 Managerial Economics-II

Course Objective: This course aims to acquaint students with economy as a whole including measurement of national income, inflation and unemployment, which an objective to inculcate understanding of macroeconomic environment of an economy for better decision making.

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1: Explain the concept of national income and its measurement using different approaches.

CO2: Describe the underlying theories of demand and supply of money in an economy.

CO3: Make use of employment and national income statistics students will be able to describe and analyze the economy in quantitative terms.

CO4: Interpret macroeconomic issues like money, inflation and unemployment.

CO5: Identify the phases of the business cycle and the problems caused by cyclical fluctuations in the market economy.

Unit I

National Income: Measuring National Income. Problems in the measurement of National Income. Theories of Money: Nature and functions of money – Types of money: Near money, inside money and outside money. Theories of demand for money – defining demand for money – Classical theories of demand for money – Friedman's re-statement of Quantity Theory of Money; Liquidity preference theory and Keynesian Liquidity Trap. Theories of Supply of money; Defining supply of money; Measuring supply of money.

Unit II

Theories of Inflation and Unemployment: Meaning, Types and Theories of Inflation. - Cost of inflation and sacrifice ratio. - Measurement of Inflation in India - Policies to control inflation Meaning and types of unemployment. - Cost of unemployment and Oakun's Law Measurement of unemployment in India. - Concept of Stagflation - Concept of Philips Curve.

Unit III

Business cycle: Meaning, types and phases. Monetary, Fiscal and Income policy – Meaning and instruments. Multiplier: Concept, Features and Leakages. Foreign trade multiplier.

Unit IV

Macro-economic Framework in Indian Economy-Public Finance-Tax system in India-Financial Administration: Finance Commission.

SUGGESTED READINGS:

- 1. Ahuja, H.L. (2015) Macroeconomics-Theory and Policy. New Delhi: Sultan Chand.
- 2. Jhingan, M.L. (2016) Macro Economic Theory. Delhi: Vrinda Publications Pvt. Ltd
- 3. Dwivedi, D.N.(2017) Macroeconomics: Theory and Practice: Theory & Practice. NewDelhi: McGraw Hill.
- 4. Jain, T.R., Khanna, O.P.(2014) Managerial Economics: V.K. Publications

5. Dewett, K.K., Navalur, M.H., (2006) Modern Economic Theory: New Delhi: Sultan Chand.

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AECC EVS102-18 Environment Studies

Course Outcomes:

- 1. Students will enable to understand environmental problems at local and national level through literature and general awareness.
- 2. The students will gain practical knowledge by visiting wildlife areas, environmental institutes and various personalities who have done practical work on various environmental Issues.
- 3. The students will apply interdisciplinary approach to understand key environmental issues and critically analyze them to explore the possibilities to mitigate these problems.
- 4. Reflect critically about their roles and identities as citizens, consumers and environmental actors in a complex, interconnected world

UNIT-1: Introduction to Environmental Studies

Multidisciplinary nature of Environmental Studies: Scope & Importance Need for Public Awareness

UNIT-2: Ecosystems

Concept of an Ecosystem: Structure & functions of an ecosystem (Producers, Consumers & Decomposers)

Energy Flow in an ecosystem: Food Chain, Food web and Ecological Pyramids Characteristic features, structure & functions of following Ecosystems:

Forest Ecosystem

• Aquatic Ecosystem (Ponds, Lakes, River & Ocean)

UNIT-3: Natural Resources

Renewable & Non-renewable resources

Forest Resources: Their uses, functions & values (Biodiversity conservation, role in climate change, medicines) & threats (Overexploitation, Deforestation, Timber extraction, Agriculture Pressure), Forest Conservation Act

Water Resources: Their uses (Agriculture, Domestic & Industrial), functions & values, Overexploitation and Pollution of Ground & Surface water resources (Case study of Punjab), Water Conservation, Rainwater Harvesting,

Land Resources: Land as a resource; Land degradation, soil erosion and desertification

Energy Resources: Renewable & non-renewable energy resources, use of alternate energy resources (Solar, Wind, Biomass, Thermal), Urban problems related to Energy

UNIT-4: Biodiversity & its conservation

Types of Biodiversity: Species, Genetic & Ecosystem

India as a mega biodiversity nation, Biodiversity hot spots and biogeographic regions of India Examples of Endangered & Endemic species of India, Red data book

UNIT-5: Environmental Pollution & Social Issues

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Types, Causes, Effects & Control of Air, Water, Soil & Noise Pollution Nuclear hazards and accidents & Health risks Global Climate Change: Global warming, Ozone depletion, Acid rain, Melting of Glaciers & Ice caps, Rising sea levels Environmental disasters: Earthquakes, Floods, Cyclones, Landslides

UNIT-6: Field Work

Visit to a National Park, Biosphere Reserve, Wildlife Sanctuary
Documentation & preparation of a Biodiversity (flora & fauna) register of campus/river/forest
Visit to a local polluted site: Urban/Rural/Industrial/Agricultural
Identification & Photography of resident or migratory birds, insects (butterflies)
Public hearing on environmental issues in a village

Suggested Readings:

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- Bharucha, E. Text Book for Environmental Studies. University Grants Commission, New Delhi.
- 2. Agarwal, K.C. 2001 Environmental Biology, Nidi Publ. Ltd. Bikaner.
- 3. Bharucha Erach, The Biodiversity of India, Mapin Publishing Pvt. Ltd., Ahmedabad 380 013, India, Email:mapin@icenet.net (R)
- 4. Brunner R.C., 1989, Hazardous Waste Incineration, McGraw Hill Inc. 480p
- 5. Clark R.S., Marine Pollution, Clanderson Press Oxford (TB)
- Cunningham, W.P. Cooper, T.H. Gorhani, E & Hepworth, M.T. 2001, Environmental Encyclopedia, Jaico Publ. House, Mumabai, 1196p
- 7. De A.K., Environmental Chemistry, Wiley Eastern Ltd.
- 8. Down to Earth, Centre for Science and Environment (R)
- Gleick, H.P. 1993. Water in crisis, Pacific Institute for Studies in Dev., Environment & Security. Stockholm Env. Institute Oxford Univ. Press. 473p
- Hawkins R.E., Encyclopedia of Indian Natural History, Bombay Natural History Society, Bombay (R)
- Heywood, V.H & Waston, R.T. 1995. Global Biodiversity Assessment. Cambridge Univ. Press 1140p.
- Jadhav, H & Bhosale, V.M. 1995. Environmental Protection and Laws. Himalaya Pub. House, Delhi 284 p.
- Mckinney, M.L. & School, R.M. 1996. Environmental Science systems & Solutions, Web enhanced edition. 639p.
- 14. Mhaskar A.K., Matter Hazardous, Techno-Science Publication (TB)
- 15. Miller T.G. Jr. Environmental Science, Wadsworth Publishing Co. (TB)
- 16. Odum, E.P. 1971. Fundamentals of Ecology. W.B. Saunders Co. USA, 574p
- 17. Rao M N. & Datta, A.K. 1987. Waste Water treatment. Oxford & IBH Publ. Co. Pvt. Ltd. 345p.

- 364)
- 18. Sharma B.K., 2001. Environmental Chemistry. Geol Publ. House. Meerut
- 19. Survey of the Environment, The Hindu (M)
- 20. Townsend C., Harper J, and Michael Begon, Essentials of Ecology, Blackwell Science (TB)
- 21. Trivedi R. K. and P.K. Goel, Introduction to air pollution, Techno-Science Publication (TB)
- 22. Wanger K.D., 1998 Environmental Management. W.B. Saunders Co. Philadelphia, USA 499p

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BMPD202-18 Mentoring and Professional Development

Guidelines regarding Mentoring and Professional Development

The objective of mentoring will be development of:

- Overall Personality
- Aptitude (Technical and General)
- General Awareness (Current Affairs and GK)
- · Communication Skills
- Presentation Skills

The course shall be split in two sections i.e. outdoor activities and class activities. For achieving the above, suggestive list of activities to be conducted are:

Part – A (Class Activities)

- 1. Expert and video lectures
- 2. Aptitude Test
- 3. Group Discussion
- 4. Quiz (General/Technical)
- 5. Presentations by the students
- 6. Team building Exercises

Part – B (Outdoor Activities)

- 4. Sports/NSS/NCC
- 5. Field Project
- 6. Society Activities of various students chapter i.e. ISTE, SCIE, SAE, CSI, Cultural Club, etc.

Note: Evaluation shall be based on rubrics for Part – A & B.

Mentors/Faculty incharges shall maintain proper record student wise of each activity conducted and the same shall be submitted to the department.

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BBA 301- Organizational Behaviour

Course Objective: This course emphasizes the importance of human capital in the organizations of today. It gives an insight to the students regarding individual and group behaviour in any organization.

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1- To explain the basics of Organizational behaviour and various challenges for OB.

CO2- To illustrate the foundations of Individual Behaviour and various factors influencing individual behaviour viz. learning, personality, perception, attitude and motivation.

CO3: To examine the dynamics of group development and group properties.

CO4: To understand various dimensions of organisational culture.

CO5: To analyse the process of conflict management and approaches to stress management.

Unit I

Introduction: Meaning of organizational behaviour and its relevance in today's business environment, contributing disciplines to Organization Behaviour, challenges and opportunities for OB.

Individual behaviour in organization: Foundations of individual behaviour, Factors influencing Individual Behaviour.

Learning: Meaning, characteristics and theories: Classical conditioning theory, operant conditioning theory, social learning theory, behaviour modification.

Unit II

Perception: Nature, importance, perceptual process, factors influencing perception, perceptual errors.

Attitude: Meaning, importance, components and types of work related attitude.

Personality: Meaning, determinants of personality, personality traits.

Motivation: Meaning, types of motivation, theories of work motivation given by Maslow.

Herzberg, McGregor, Vroom and Porter - Lawler.

Unit III

Group behaviour in organization: Group dynamics, Types of groups, Group development, theories of group development, Group norms and roles, Group cohesiveness,

Work Teams: Meaning, characteristics, types of team, Creating effective team.

Leadership: nature, leadership styles, Leadership theories: trait theory and behavioural theories.

Unit IV

Conflict Management: Meaning, types and sources of conflict, Process of conflict management, approaches to conflict management.

Stress management: sources of stress, approaches for stress management.

Organizational culture: meaning, concept, types of culture, dimensions of organizational culture.

Suggested Readings/ Books:

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- Robbins, Organization Behaviour, Pearson Education Asia
- Luthans, Organization Behaviour, Tata McGraw Hill
- Newstrom, Organizational Behaviour: Human Behaviour at Work, Tata McGraw Hill
- · L.M. Prasad, Organisation Behaviour, Sultan Chand
- · Parikh, Gupta, Organisational Behaviour, Tata McGraw Hill
- Aswathappa, Organization Behaviour, Himalaya

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BBA 302- Marketing Management

Course Objective: Marketing is one of the foremost functions of Management in present day corporate world, its understanding results in developing best products in terms of goods and services that brings consumer satisfaction. This course will imbibe the basic understanding among the students to become successful marketers.

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1: Explain the basics of marketing, selling, marketing mix and its core concepts.

CO2: Describe the intricacies of the marketing environment and marketing information systems for effective marketing planning and strategies.

CO3: Develop necessary skills for effective market segmentation, targeting and positioning. CO4 – Illustrate various components of product mix, product life cycle and comprehend the new product development process.

CO5- Develop an understanding of promotion mix and strategies for successful promotion Unit I

Marketing: Nature and Scope of Marketing, customer needs, wants and demand. Various Marketing Concepts: production, product, selling, marketing and societal marketing, Analyzing marketing environment: micro, macro environment

Unit II

Market segmentation: Need, concept, nature, basis and strategies, mass marketing vs.

Marketing mix: 4Ps of products and 7Ps of services, components and factors affecting mix.

Unit III

Product decisions: Product definition, new product development process, and product life cycle, positioning, branding, packaging and labeling decisions.

Pricing decisions: importance, objectives, designing strategies, Pricing Techniques

Unit IV

Distribution: Types of channel, factors affecting decision, Designing and Managing Marketing Channel, Managing Retailing, physical distribution system and its components. Promotion: promotion mix-introduction, importance, disadvantages of various components and factors affecting. Designing and managing Integrated Marketing Communications.

Suggested Readings:

- 1.Kotler, P., Keller, K.L. Koshy, A. and Jha, M., Marketing Management: A South Asian Perspective, Pearson Education.
- 2. Etzel, M., Walker, B., Stanton, W. and Pandit, A Marketing Management, Tata McGraw
- 3. Ramaswamy, V.S and Namakumari, S. Marketing Management: Global Perspective Indian Context, Macmillan Publishers India Ltd.
- 4. Saxena, Rajan, Marketing Management, Fourth Edition, Tata McGraw Hill Education Pvt. Ltd.

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BBA 303-18 COST AND MANAGEMENT ACCOUNTING

Course Objective: To impart the students, knowledge about the use of financial, cost and other data for the purpose of managerial planning, control and decision making.

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1: Understand and differentiate between Cost accounting and management accounting.

CO2: Make managerial decisions regarding make or buy, acceptance or rejection of export offers and continuation or shut down of plant.

CO3: Estimate the breakeven point of the firm.

CO4: Understand and apply the concepts of budgetary control for better decision-making.

CO5: Understand and estimate material, labour, overheads and sales variances for comparing planned with actual results.

Unit-I

Introduction: Meaning, Objectives, Nature and Scope of management accounting, Difference between cost accounting and management accounting, Cost control and Cost reduction, Cost management.

Ratio Analysis: Meaning-Nature, different types of ratios, their uses and limitations, computation of various types of ratios – liquidity ratios, solvency ratios, profitability ratios, turnover ratios

Unit - II

Analysis and Interpretation of financial Statements: Meaning- Types and Methods of Financial Analysis – Comparative statements – Trend Analysis – Common size statements.

Standard Costing: Standard Costing and Variance Analysis: Meaning of standard cost and standard costing, advantages, limitations and applications. Variance Analysis – material, labour, overheads and sales variances.

Unit - III

Budgetary Control: Budgeting and Budgetary Control: Concept of budget, budgeting and budgetary control, objectives, merits, and limitations. Budget administration. Functional budgets. Fixed and flexible budgets. Zero base budgeting.

Unit-IV

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Marginal Costing: Absorption versus Variable Costing: Distinctive features and income determination. Cost-Volume-Profit Analysis, Profit / Volume ratio. Break-even analysis-algebraic and graphic methods, Margin of safety, Key factor, determination of cost indifference point.

Suggested Readings:

- Horngren, C. T., Sundem, G. L., Stratton, W. O., Burgstahler, D., & Schatzberg, J. (2011). Introduction to management accounting. Pearson Education International.
- Anthony A. Atkinson, Robert S. Kaplan, Ella Mae Matsumura, S. Mark Young. (2006). Management Accounting. Dorling Kindersley(India) Pvt. Ltd.
- Singh, Surender. (2016). Management Accounting. Scholar Tech Press, New Delhi.
- Garrison H., Ray and Eric W. Noreen. (2016). Managerial Accounting. McGraw Hill.
- Goel, Rajiv. (2013). Management Accounting. International Book House,
- Arora, M.N. (2012). A Textbook of Cost and Management Accounting. Vikas Publishing House, New Delhi.
- Maheshwari, S.N. and S.N. Mittal. (2017). Management Accounting. Shree Mahavir Book Depot, New Delhi.

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BBA-304 Production and Operations Management

Course objective: The course aims at developing knowledge about various steps of product, design, development, plant location, storage, production planning and control.

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1: Understand ever growing importance of Production and Operations management in uncertain business environment.

CO2: Gain an in-depth understanding of resource utilization of an organization.

CO3: Appreciate the unique challenges faced by firms in services and manufacturing.

CO4: Understand the subject as a crucial part of functional management.

CO5: Develop skills to operate competitively in the current business scenario.

UNIT I

Operations management: Concept, Functions. Product Design and development – Product design and its characteristics: Product development process (Technical): Product development techniques .Process selection- Project, job, Batch, Mass and Process types of Production Systems.

UNIT - II

Facility Location – importance, Factors in Location Analysis: Location Analysis Techniques.

Facility Layout – Objectives: Advantages: Basic types of layouts. Capacity Planning – Concepts: Factors Affecting Capacity Planning, Capacity Planning Decisions. Production Planning & Control (PPC) –Concepts, Objectives, Functions.

UNIT - III

Introduction to modern productivity techniques – just in time, Kanban system. Total Quality Management & six sigma.

Functions of Purchasing Management – Objectives, Functions: Methods: Procedure. Value analysis – Concepts. Stock control systems. Virtual factory concept.

UNIT-IV

Inventory Management – Concepts, Classification: Objectives: Factors Affecting Inventory Control Policy: Inventory costs: Basic EOQ Model: Re-order Level: ABC Analysis. Quality Management - Quality Concepts, Difference between Inspections, Quality Control, Quality Assurances, Total Quality Management: Control Charts: acceptance sampling. Suggested Readings:

- 1. Nair, Production & Operations management, 1st Edition, Tata McGraw Hill
- 2. Adam and Eben, Production & Operations management, 5th Edition, Prentice Hall, India.
- 3. Krajewski & Ritzman, Operations Management, 5th Edition, Pearson Education.
- 4. Buffa & Sarin, Modern Production/Operations Management, 8th Edition, John Wiley

5. Chary, Production & Operations Management, 2nd Edition, Tata McGraw

BBA-SEC 301 IT Tools for Business

Course Objective: The purpose of this course is to provide a through exposure to the operating and office management tools available in different packages. A student can be exposed to the working knowledge of Windows based operating systems and software packages such as Windows-95, 98, 2000-Professional, windows-XP and MS-Office.

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1: Develop understanding of computer fundamentals, functions and their classifications

CO2: Develop a clear understanding and knowledge about the functioning of a Computer software and window operating system

CO3: Demonstrate proficiency in Microsoft word & Excel.

CO4: Apply formatting and editing features to enhance worksheets.

CO5: Use styles, themes, and conditional formats to customize worksheets.

Unit-I

Computer Fundamentals: Data, Instruction and Information, Characteristics of Computers, Various fields of application of Computers, Input-output Devices (Hardware, Software, Human ware and Firmware) Advantages and Limitations of Computer, Block Diagram of Computer, Function of Different Units of Computer, Classification of Computers. Data Representation: Different Number System (Decimal, Binary, Octal and hexadecimal) and their Inter Conversion.

Unit-II

Computer Software: Types of Software, Application software and system software, Compiler and Interpreter, Generations of languages, Low- and High-Level Languages. Computer Memory: Primary Memory & Secondary memory. Storage Media. Introduction to Windows Operating System: All Directory Manipulation: Creating Directory, Sub Directory, Renaming, Coping and Deleting the Directory File Manipulation: Creating a File, Deleting, Coping, renaming a File Using accessories such as calculator, paint brush, CD player, etc

Unit -III

MS-Word: History, Creating, Saving, Opening, Importing, Exporting and Inserting document, Formatting pages, Alignment, Paragraphs and Sections. Indents and Outdents, creating lists and numberings Formatting Commands: Headings, Styles, Fonts and Size editing, Viewing Text, Finding and Replacing text, Headers and Footers, Inserting page



breaks, Page numbers, Special Symbols and Dates Mail merge, Preview and Printings command.

MS-PowerPoint: History, Creating, Saving, Opening, existing presentation, Creating and Saving a Presentation using Auto Content Wizard, Design Template, Blank Presentation the Slide Sorter View, Slide Show, Inserting pictures and graphics and Printing Slides.

Unit-IV

MS-Excel: Introduction, Components of Excel History, Creating, Saving, Opening, Spreadsheet, Formatting numbers and Text, Graph and Chart Formatting Commands, Menu Bar, Toolbars, Producing Charges, Protecting Cell Macro and Printing Operation, Spell Checking, Cell Editing, Calculation of various Financial and Statistical Functions using Formulas.

Note: Relevant Case Studies should be discussed in class.

Suggested Readings:

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- Ram, B.(2018). Computer Fundamentals Architecture and Organization. New Delhi: Age Publications
- Sinha, P.K. and Sinha, P. (2017). Foundation of computing. New Delhi: BPB Publications.
- Arora, A.(2015) Computer fundamentals and applications. Vikas Publishing.
- Rajaraman, V.(2014). Fundamentals of Computers. Delhi: Prentice-Hall.
- Roger, J. (2010). Microsoft Access 2010. Delhi: Pearson Education.
- Forouzan, (2009). Basics of Computer Science. India: Cengage Learning
- Levi, D.S., Kaminsky, P. (2007) Designing and Managing the Supply Chain. McGraw Hill
- Turban, E., Aronson JE., Liang, TP. (2005). *Decision Support Systems and Intelligent Systems* (7th Edition). Pearson Publishers.

BMPD302-18 Mentoring and Professional Development

Guidelines regarding Mentoring and Professional Development

The objective of mentoring will be development of:

- Overall Personality
- Aptitude (Technical and General)
- General Awareness (Current Affairs and GK)
- Communication Skills
- Presentation Skills

The course shall be split in two sections i.e. outdoor activities and class activities. For achieving the above, suggestive list of activities to be conducted are:

Part - A (Class Activities)

- 1. Expert and video lectures
- 2. Aptitude Test
- 3. Group Discussion
- Quiz (General/Technical) 4.
- 5. Presentations by the students
- Team building Exercises

Part - B (Outdoor Activities)

7. Sports/NSS/NCC

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- 8. Field project.
- 9. Society Activities of various students chapter i.e. ISTE, SCIE, SAE, CSI, Cultural Club, etc.

Note: Evaluation shall be based on rubrics for Part - A & B.

Mentors/Faculty incharges shall maintain proper record student wise of each activity conducted and the same shall be submitted to the department.

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BBA 401 Business Research Methods

Course Objective: The course aims at equipping students with an understanding of the research process, tools and techniques in order to facilitate managerial decision making.

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1: Explain the objectives and process of conducting research and its application in business.

CO2: Analyse the different types of research design and experimental errors.

CO3: Understand various techniques of sampling and methods of data collection.

CO4: Examine different types of scales and appraise about data preparation and analysis.

CO5: Identify and prepare various types of reports.

UNIT I

Research Methodology: definition, objectives, scope in management research, process of Research and limitations.

Research Design: Formulating the Research Problem, Choice of Research Design, Types of Research Design, Sources of Experimental Errors

UNIT II

Sampling: Advantages and Limitation of Sampling, Sampling process, Types of Sampling: Non-

probability sampling techniques, Probability sampling techniques, Sampling and non sampling

errors. Data collection: primary, secondary data collection, observation methods and survey method:

UNIT III

Measurement Concept, Levels of measurement—Nominal, Ordinal, Interval and Ratio Attitude Measurement: Comparative scaling techniques, Non-comparative scaling techniques,

Questionnaire Designing: Types, Guidelines for developing a good questionnaire

UNIT IV

Data Preparation And Analysis: Editing, Coding, Cross Tabulation and Practices through Excel (Basic Concepts)

Report Writing: Types of Research Reports, Guidelines for Writing a Report, Report Format.

Guidelines for evaluating a report.

Suggested Readings:

1. K.V. Rao: Research Methodology, Sterling Publishers,

2. Srivastava and Rego: Business Research Methodology Tata McGraw Hill

3. Rajinder Nargundhkar: Marketing Research, Tata McGraw Hill

4. Cooper and Schindler, Business Research Methods, Tata McGraw Hill

5. C.R. Kothari: Research Methodology, New Age International Publishers

BBA 402 Human Resource Management

Course Objective: To provide an in-depth overview of the field of HRM, what are the roles and responsibilities of HR professionals how the primary functions affect the broader business strategy.

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1- To explain the basics of Human Resource Management and analyse the evolution of HRM.

CO2: To appraise various functions of HRM that facilitate employee hiring viz. human resource planning, job analysis recruitment and selection.

CO3: To understand the role of training, development, career planning and performance appraisal functions in human resource development.

CO4: To analyse the functions of compensation management namely, wages and salary administration, incentives and fringe benefits.

CO5: To comprehend the meaning and concept of Industrial relations.

Unit I

Nature, scope, role and importance of HRM. New trends in HRM due to globalization deregulation and technological advancements, HRM practices in India, issues and challenges. Human Resource Planning: Meaning, factors affecting HRP, Human Resource Planning process.

Unit II

Job analysis: steps in analysing job and introduction to methods of collecting job analysis information, Job description, job specification. Job design: job simplification, job rotation, job enrichment and job enlargement.

Recruitment: sources of recruitment, policies and procedure of recruitment. Selection process,

testing and interviews, Placement and induction.

Unit III

Training and Development: Identification of training needs, process of training and methods of training and development.

Career planning and development: career life cycle, process of career planning and development.

Unit IV

Performance appraisal: Meaning, process of performance appraisal, methods and problems of performance appraisal.

Compensation Management- Wage & Salary Administration: Meaning & Concept of Wage & Salary Administration, Elements & Methods of Wage & Salary, Incentive Plans & Fringe Benefits.

Industrial Relations: Meaning & Concept of Industrial Relations.

Suggested Readings:

- 1. Monnappa and Saiyadan, Personnel Management, Tata Mcgraw Hill.
- 2. Dessler, Garg, Human Resource Management, Pearson education.
- 3. C.B. Memoria Personal Management Himalaya
- 4. K. Aswathappa Human Resource Management Tata McGrawHill
- 5. Rao V.S.P. Human Resource Management, Excel books

BBA 403 Financial Management

Course Objective: To develop a conceptual clarity and basic understanding of the fundamentals of corporate finance among the students. Further help them comprehend its practical applicability in the corporate world.

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1: Apply financial data for use in decision making by applying financial theory to problems faced by business enterprises.

CO2: Apply foundational finance theories and to analyse a forecast using relevant data and to conduct preliminary measurement of leverage analysis.

CO3: Apply time value of money techniques to various pricing and budgeting problems.

CO4: Apply modern techniques in capital budgeting analysis.

CO5: Assess dividend policy's impacts on share prices and to understand the implications of Dividend decisions in financial decision making.

Unit I

Financial management -Introduction: Meaning, nature and Scope, Goals of Financial Management-Profit Maximization vs. Wealth Maximization; Finance functions-investment, Financing, Liquidity and dividend decisions. Sources of finance-Long term and short term. Concept of Time Value of Money-present value, future value, annuity, Present Value of a series of payments.

Unit II

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Cost of Capital: Meaning and significance of cost of capital; cost of equity shares; cost of preference shares; cost of debt, weighted average cost of capital. Form of Capital: Introduction to Capital Structure; theories- NI approach; NOI approach; MM approach; Traditional approach, determinants of capital structure. Operating and Financial Leverage: Measurement of leverages; Financial and operating leverage, combined leverage

Unit II

Investment Decision Making: Meaning, importance, nature of investment decisions. Investment evaluation criteria, Capital budgeting Techniques-Non-discounted cash flow-Pay back methods; Post Payback period; Accounting rate of return method, Discounted cash flow techniques-Net Present value method; Internal rate of return method; Profitability index method.

Unit IV

Working Capital: Meaning, significance, types, approaches, Factors affecting working capital management capital. **Dividend Policies:** Issues in dividend decisions. Forms of dividend-Theories of relevance and irrelevance of dividends.

Suggested Readings:

network activity activity

- Khan, M. Y. and Jain P. K.(2011), "Financial Management, Text, Problems & Cases", Tata McGraw Hill Company, New Delhi.
- II. Pandey, I.M.(2015), "Essentials of Financial Management", 4th Edition, Vikas Publishing House Pvt. Ltd., New Delhi.
- III. Maheshwari, S.N.(2019), "Financial Management Principles & Practice", 15th Edition, Sultan Chand & Sons, New Delhi.
- IV. Rustagi, Dr.R.P. (2017), "Basic Financial Management", 8th Edition, Sultan Chand & Sons, New Delhi.
- V. Patel, Bhavesh(2014)," Fundamentals of Financial Management", Vikas Publishing House Pvt. Ltd., New Delhi.

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BBA GE- 401 Entrepreneurship Development

Course Objective: The objective of the course is to make the student understand the concept and importance of entrepreneurship and facilitate generation of young entrepreneurs.

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1: Describe the concept and theories of entrepreneurship and its role in economic development of nation.

CO2: Develop business plan and identify the reasons of failure of business plans.

CO3: Illustrate the steps in starting MSME.

CO4: Comprehend government policies and regulatory framework available in India to facilitate the process of entrepreneurial development.

CO5: Identify different sources of finance for new enterprises and assess the role of financial institutions and various government schemes in entrepreneurial development.

Unit I

Definition and Concept of Entrepreneurship, Theories of Entrepreneurship, Myths about Entrepreneurship, Entrepreneurial Traits and Motivation, Role of Entrepreneurship in economic development. Types of Entrepreneurs. Barriers in the way of Entrepreneurship. Entrepreneurship Development (ED) Cycle.

Unit II

Creativity and Business Ideas, Blocks to creativity. Business Plans and reasons of failure of business plans. Micro-Small-Medium (MSME) Enterprise – Definition – Characteristics- Objectives- Advantages- Disadvantages-Role in developing countries-Problems- steps for starting- – Government Policies.

Unit III

EDP in India – Phases of Entrepreneurial programs – Government Policies- Administrative Frame work – Policy instruments – Statutory Boards – Industrial Estates – Industrial clusters – Incentives and subsidies – Advantages - Needs & Problems – Promotional agencies. Business Incubators& Start-ups.

Unit IV

Financing Options - Bridge capital, Seed capital assistance, Margin money scheme, Industrial Sickness, Causes-Remedies- An overview on the roles of institutions/schemes in entrepreneurial development- SIDBI, Commercial Banks. Other financing options- venture capital, lease funding, Angel Investors. Revival, Exit and End to a venture.

Suggested Readings:

- Kumar, Arya (2018), "Entrepreneurship", Pearson, New Delhi.
- Gopal, V.P. Nanda (2015), "Entrepreneurial Development", Vikas Publishing, New Delhi.
- Desai, Vasant, "Dynamics of Entrepreneurial Development & Management", Himalaya Publishing House.
- Khanka, S S, Entrepreneurial Development, S.Chand & Col New Delhi.

BBA SEC- 401 Business Ethics & Corporate Social Responsibility

Course Objective: This paper aims at providing the students the understanding of ethical issues related to business and good governance necessary for long term survival of business.

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1: Explore the relationship between ethics and business across different cultural traditions

CO2: Understand the relationship between ethics, morals and values in the workplace

CO3: Discuss the moral and social responsibility dimensions of corporate governance.

CO4: Describe models of CSR in India.

CO5: Assess international framework for CSR.

Unit I

Business Ethics: Nature, scope and purpose of ethics, Importance of Ethics & Moral standards; Ethics & Moral Decision Making, Ethical Principles in Business, Markets, Environment, Trade, Consumer Production and Marketing, Finance, HR, Personal Growth and Lessons from Ancient Indian Educational System; Science and Human Values.

Unit-II

Indian Ethos: Need, purpose & relevance of Indian Ethos; Salient feature (Brain Stilling, Total Quality Mind, Intuition, Intellectual rational brain V/s Holistic-Spiritual Brain. Holistic Approach for Managers in Decision Making, Professional ethos and code of professional ethics Human Values, Different meaning of human values: foundational human values freedom, creativity, love and wisdom, Nature of Human freedom.

UNIT III

Meaning & Definition of CSR, History & evolution of CSR. Concept of Charity, Corporate philanthropy, Corporate Citizenship, CSR-an overlapping concept. Concept of sustainability & Stakeholder Management. CSR through triple bottom line and Sustainable Business; relation between CSR and Corporate governance; environmental aspect of CSR; Chronological evolution of CSR in India; models of CSR in India, Carroll's model; drivers of CSR; major codes on CSR; Initiatives in India.

UNIT IV

International framework for corporate social Responsibility, Millennium Development goals, Sustainable development goals, Relationship between CSR and MDGs. United Nations (UN) Global Compact 2011. UN guiding principles on business and human rights. OECD CSR policy tool, ILO tri-partite declaration of principles on multinational enterprises and social

Suggested Readings:

- 1. S.S. Iyer Managing for Value (New Age International Publishers, 2002)
- 2. S.K. Bhatia Business Ethics and Managerial Values (Deep & Deep Publications Pvt.Ltd, 2000).
- 3. Velasquez Business Ethics Concepts and Cases (Prentice Hall, 6th Ed.)
- 4. Reed Darryl Corporate Governance, Economic Reforms & Development (Oxford).
- 5. Mathur UC Corporate Governance & Business Ethics (Mc Millan).
- 6. Human Values By: Prof. A.N. Tripathi New Age International
- 7. Corporate Social Responsibility in India Sanjay K Agarwal
- 8. Handbook on Corporate Social Responsibility in India, CII.

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BMPD402-18 Mentoring and Professional Development

Guidelines regarding Mentoring and Professional Development

The objective of mentoring will be development of:

- Overall Personality
- Aptitude (Technical and General)
- General Awareness (Current Affairs and GK)
- Communication Skills
- · Presentation Skills

The course shall be split in two sections i.e. outdoor activities and class activities. For achieving the above, suggestive list of activities to be conducted are:

Part – A (Class Activities)

- 1. Expert and video lectures
- 2. Aptitude Test
- 3. Group Discussion
- 4. Quiz (General/Technical)
- 5. Presentations by the students
- 6. Team building Exercises

Part – B (Outdoor Activities)

- 10. Sports/NSS/NCC
- 11. Field project.
- 12. Society Activities of various students chapter i.e. ISTE, SCIE, SAE, CSI, Cultural Club, etc.

Note: Evaluation shall be based on rubrics for Part – A & B.

Mentors/Faculty incharges shall maintain proper record student wise of each activity conducted and the same shall be submitted to the department.

BBA 501-18 Operation Research

Course Objective: The objective of the course is to acquaint the students with the applications of the operations research to business and industry and help them to grasp the significance of analytical approach to decision making.

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1: Understand the concept, approaches and applications of operations research.

CO2: Apply the methods of linear programming for decision making.

CO3: Analyse transportation and assignment problems of business.

CO4: Apply the methods of game theory to solve business problems

CO5: Apply the techniques of network analysis to schedule business / project activities.

Unit 1

Introduction to Operation Research:- Meaning, Evolution, approaches, techniques and scopes of operations research, managerial application of Operation Research. Linear programming:- Introduction, meaning characteristics, graphical approaches and its utility simplex method, dual linear programming

Unit 2

Transportation & Assignment Problem: - The general structure of the problem, methods of initial allocation degeneracy, optimal solution, assignment problem, structure variation in assignment problem.

Unit 3

Game Theory: Games with pure and mixed strategies, saddle point, odds method, principle of dominance, sub games method. Sequencing problems: Processing jobs through two machines and three machines.

Unit 4

Network Analysis:- PERT/CPM background and development, stages in application PERT networking analysis, CPM, Determination of CPM, Determination of earliest expected & latest allowable times. Inventory control: - Classification of Inventory control, EOQ model, inventory control system, ABC Analysis, Advantages of EOQ model in management.

References:

- Gupta P.K., Hira D.S. (2011). Operations Research S. Chand & Co. Ltd., New Delhi.
- Taha H.A.(2010). Operations Research An Introduction. Pearson Education.
- Mustafi, C.K. (2000). Operations Research: New Age International Pvt. Ltd., New Delhi.
- Gupta, M.P., Sharma J. K. (2000). Operations Research for Management Mayoor Paperbacks, Delhi.
- N.D. Vohra. (2007) Quantitative Techniques in Management. Tata McGraw-Hill.



- Frederick S. Hillier and Gerald J. Lieberman. (2001). Introduction to Operations Research: concept and cases. Tata McGraw-Hill.
- Sharma J.K.(2006). Operations Research: Theory and Application. Macmillan Publishers India.

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BBA 502-18

Mercantile Law

Course Objective: To provide the brief idea about the frame work of Indian Business Laws. The course aims to familiarize the students with case law studies related to Business Laws.

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1: Understand the concept, approaches and application of Contract Act in business decision making.

CO2: Understand and apply the provisions of Partnership Act in business decision making.

CO3: Understand and apply the provisions of sales Act in business decision making.

CO4: Understand and apply the provisions of Consumer Protection Act and Environment Protection Act in business decision making

CO5: Understand and apply the provisions of Negotiable Instrument Act in business decision making

Unit I

Introduction to Contract Act: Agreement, kinds of Agreements, Contract- kinds of contracts: Valid, Void, Voidable, Contingent and Quasi Contract and E contract, distinguish between agreement and contract. Offer and Acceptance - Definition, Essentials and types Communication of offer, Acceptance and Revocation. Capacity to contract, Free Consent, Consideration, Legality of Object and Consideration. Performance and discharge of contract, Remedies for breach of contract.

Law of Indemnity and Guarantee, Law of Bailment and pledge, Law of Agency.

Unit II

Partnership Act: Introduction to Partnership Act, Admission of Partner, Retirement and Death of Partner, Dissolution of Partnership Firm.

The Sale of Goods Act: Introduction, definitions, Formalities of the contract of sale, Distinction between 'sale' and 'agreement' of sell, Distinction between 'sale and hire-purchase agreement', Conditions and Warranties, Transfer of property as between the seller and buyer Rights of an unpaid seller.

Unit III

Consumer Protection Act: Objectives, features, structure and significance

Environment Protection Act: Objectives, features, structure and significance



Unit IV

Negotiable Instrument Act: Meaning and Characteristics of Negotiable Instrument, classification of Negotiable Instruments, Promissory Notes and Bills of Exchange, Essential elements of promissory Note and bill of exchange. Acceptance for honour, Absolute and qualified or conditional acceptance, Drawer, Drawee in case of Need, Payee, Cheques, types of cheques and Penalties in case of dishonour of certain cheques, distinguish between cheque and Bill of exchange, Holder, Holder in Due Course, Rights and privileges of H.D.C. Payment in due course, Maturity of an Instrument.

References:

- Majumdar, A.K. (2017), "Company Law" Taxman Publishers
- C. L. (2016), "Business Laws" Taxmann Publishers.
- Kuchhal M. C. and Parkash D (2016), "Business Legislations for Managements' Vikas Publications.
- Singhania V. K. and Singhania K (2016), "Direct Tax Laws and Practice' Taxmann Publishers.
- > Chawla, Garg and Sarin (2017), "Mercantile Law' Kalyani Publishers.





BMPD 502-18 Mentoring and Professional Development

Guidelines regarding Mentoring and Professional Development

The objective of mentoring will be development of:

- Overall Personality
- Aptitude (Technical and General)
- General Awareness (Current Affairs and GK)
- Communication Skills
- Presentation Skills

The course shall be split in two sections i.e. outdoor activities and class activities. For achieving the above, suggestive list of activities to be conducted are:

Part – A (Class Activities)

- 1. Expert and video lectures
- 2. Aptitude Test
- 3. Group Discussion
- 4. Quiz (General/Technical)
- 5. Presentations by the students
- 6. Team building Exercises

Part – B (Outdoor Activities)

- 13. Sports/NSS/NCC
- 14. Field project.
- 15. Society Activities of various students chapter i.e. ISTE, SCIE, SAE, CSI, Cultural Club, etc.

Note: Evaluation shall be based on rubrics for Part – A & B.

Mentors/Faculty incharges shall maintain proper record student wise of each activity conducted and the same shall be submitted to the department.

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BBA 511-18

Consumer Behaviour

Course objective:

The course aims at providing fundamental knowledge and exposure to the concepts, theories and practices in Consumer behavior and to facilitate the students in appreciating need/significance and applications of various domains of consumer behavior especially in the changing business environment.

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1: Understand fundamental concepts, nature and importance of consumer behaviour.

CO2: Analyze the various factors that influence consumer decisions.

CO3: Understand the individual, group or organizations make buying decisions.

CO4: Understand how and why groups affect consumer behavior.

CO5: Understand the emerging trends in field of consumer behavior.

Unit I

Consumer Behaviour: Nature, scope & Importance of Consumer behavior. Consumer decision making process (five step model), factors affecting buying behaviour, Models of consumer decision making,

Unit II

Consumer as an individual: Consumer motivation: needs & goals, Personality: Theories (Psychoanalytical and Trait Product Personality, Consumer Perception: Concept and Elements of Perception, Theories of consumer learning: Behavioural and Cognitive Learning Theories. Consumer Attitude: Meaning of Consumer attitude and Functions of Attitude.

Unit III

Consumer in social & cultural setting: Reference groups: concepts, factors affecting reference groups, Family: Functions of family, Family Life Cycle. Social class: Meaning and different social classes, Culture & sub culture: definition & influence.

Unit IV

Consumer Decision Making: Introduction to opinion leadership, Diffusion of innovations: Diffusion Process, Adoption Process Influence, Profile of Consumer Innovators.

Recommended Text Books:

- 1. Schiffman, L.G. and Kanuk, L.L.(2018) Consumer Behavior, Prentice Hall of India
- stungs 2. Loudon, D. and Bitta, D., (2010) Consumer Behaviour, Tata Mc Graw Hill
 - 3. Majumdar,R, (2017) Consumer Behaviour: Insights from the Indian Market, PHI Learning Pvt. Ltd.
 - 4. Schiffman, L.G. Wisenblit and Kumar (2016). Consumer Beliavior, Pearson.

BBA 512-18

Advertising and Sales Management

Objective of Course: The course aims at providing fundamental knowledge and exposure to the concepts, theories and practices in the field of advertising and sales management. The course will help students learn rules and techniques of effective advertising and to understand the sales management process and its management

Course Outcomes: After studying this course, the students should be able to:

CO1: Understand advertising and its role in Marketing

CO2: Apply knowledge of advertising components in designing effective Advertising campaign for products and services

CO3: Design effective Media strategy for its product /Service awareness

CO4: Apply its knowledge in recruiting and selecting right set of Sales force for selling products and services in market

CO5: Design sound sales strategy for its products and services. CO6: Measure performance of sales force and sales territories.

Unit I

Advertising: Definition of Advertising, History of Advertising, Roles of Advertising, Types of Advertising, Setting advertising objectives ,different kinds of advertising, Advertising Layout, advertising copy, Creative copy strategies, Message Strategies, Cognitive strategies, Exceptional Strategies, Advertising Effectiveness.

Unit II

Media planning & scheduling: Media Plan, Types of media, Market Analysis, Media Objectives, Developing and Implementing Media Strategies, Evaluating the effectiveness of Media, Measuring advertising effectiveness: pre and post testing, Social, Ethical and Legal Aspect of Advertising,

Unit III

Sales Management: Definition, Nature, Scope and Importance of Sales Management, Emerging Trends in Sales Management. Role and Skills of Sales Managers, Function and qualities of a Sales Executive, Sales Objectives, Sales Strategies.

Personal Selling: Defining Personal Selling, Scope and Significance, Aims and Objectives of Personal Selling, AIDAS Principles, Personal Selling Process, Customer Delight

Unit IV

Sales Force Management: Meaning and Role of Sales Force, Sales Force Objectives and Strategy, Sales Force Size, , Financial rewards, Non-financial rewards, Compensation, Sales Territories and Quotas: Defining Sales Territory, Designing Sales Territory, Steps involved, Methods used, Guidelines for designing territories, Types of territory designs.

Note: Relevant Case Studies should be discussed in class.

Suggested Readings:

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- 1. 1. Belch, G. E. & Belch, Advertising and Promotion, Tata McGraw Hill.
- 2. Wells W., Burnet J. and Moriarty S. Advertising: Principles & Practice, Pearson Education.
- 3. O' Guinn, T. and Allen, C. "Advertising Management with Integrated Brand Promotion' Cengage Learning
- 4. Aaker, D A. Myers and Batra, Advertising Management, Pearson Education
- 5. S. A. Chunawalla, Foundation of Advertisement Theory and Practices, Himalaya Publications

Latest editions of the books should be followed.

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BBA 521-18

Corporate Accounting

Course Objective: To make the student familiar with corporate accounting procedures and in-depth knowledge of preparation of various accounts related to corporate field.

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1: To understand the accounting of issue of shares and debentures.

CO2: To understand the final accounts of company form of organization.

CO3: To get an overview of financial reporting of financial institutions

CO4: To understand the accounting treatment for amalgamation.

CO5: To understand the accounting for liquidation of the company.

Unit I Accounting for Shares and Debentures: Issue of Shares at Par, at Premium and at Discount; Forfeiture and Re-Issue of Shares; Buy-Back of Shares; Redemption of Preference Shares; Rights Issue. Issue of Debentures; Redemption of Debentures; Conversion of Debentures into Shares. Underwriting of Issues; Profits Prior To Incorporation; Treatment of Preliminary Expenses.

Unit II Final Accounts of company: Provisions and Reserves; Determination of Managerial Remuneration; Appropriation out of Profits; Payment of Dividend, Transfer of Unpaid Dividend to Investor Education and Protection Fund; Bonus Shares and Payment of Interest out of capital.

Unit III Accounting Treatment for Amalgamation and Reconstruction of Companies: Amalgamation- Accounting Treatment and Disclosures; Calculation of purchase consideration, Accounting treatment in the books of transferor and transferee (as per Accounting Standard 14, excluding inter- company holdings). Internal Reconstruction Holding and Subsidiary Companies, Preparation of consolidated balance sheet — minority interest – cost of acquiring control or goodwill – capital reserve – preference share capital in subsidiary companies.

Unit IV: Liquidation of companies: Scope, contributory preferential payments, preference dividend. Statement of affairs and deficiency/surplus account, Liquidators final statement of account, liquidator remuneration, receiver for debenture holders, list 'B' contributories.

Note: Relevant Case Studies will be discussed in class

Suggested Readings / Books:

- Shukla M.C., Grewal T. S. & Gupta S. C.(2017) Advanced Accounts. (19 Ed). Sultan Chand & Company Ltd.
- Gupta R. L. & Radhaswamy M. (2013). Corporate Accounting. Sultan Chand & Sons.
- Maheshwari S.N. Corporate Accounting Vikas Publishing House.



- ➤ Ghosh T.P. (2007) Accounting Standards and Corporate Accounting Practices Vol. 1.Taxman's, New Delhi,
- > Sharma P. Corporate Accounting. Sharma Publication.
- Arulanandam M.A., Raman K.S. Advanced Accounting, Himalaya Publication.
- Middlekauff, R.H. (2007). The glorious cause: The American revolution. Oxford University Press.

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BBA 522-18

Financial Markets and Services

Course Objective: The objective of the course is to understand role of Financial Services and markets in Business organizations and to give an insight into the strategic, regulatory, operating and managerial issues concerning select financial services. In addition, the course will examine the present status and developments that are taking place in the financial markets and developing an integrated knowledge of the functional areas of financial services industry in the real services industry in the real world situation.

Course Outcomes: Upon completion of this course, students will be able to:

CO1: To understand the concept of financial system and their importance.

CO2: To know the structure of Financial Markets.

CO3: To develop basic understanding of derivatives and currency markets.

CO4: To understand the importance and role of Primary and Secondary markets.

CO5: To understand the role and types of Financial Services

CO6: To understand structure and system of leasing, mutual funds, credit rating, credit cards, Dematerialization, merchant banking, venture capital, factoring, and securitization.

Unit I Introduction to Financial System: Introduction, components, key elements, Financial Markets; money market in India; nature, instruments, functioning and participants. Indian Capital Market: structure, functions, role, participants. Financial Services: Meaning, types and their importance, Role of Financial Services in a financial system.

Unit II Financial Regulations: Regulatory Frame work; Securities Exchange Board of India and Reserve Bank of India. Primary Market: SEBI guidelines on primary market, Book building, online IPOs, Green-shoe option. Secondary Market: Introduction, stock exchanges, listing of securities, trading and settlement. Introduction to Derivative Markets.

UNIT III Financial Services: Leasing: Meaning and features, Types of Leases, Lease vis-àvis buy. Lease vis-àvis Hire purchase. Mutual Funds: Concept, Composition, Schemes, Merchant Banking: Meaning, scope, Latest guidelines of SEBI w.r.t. Merchant bankers. Credit Rating: Types of credit Rating, credit Rating Agencies & their Methodology. Venture Capital: Meaning, Features, SEBI guidelines for venture capital,

UNIT IV Factoring: concept, factoring vis-à-vis Bills Discounting - Factoring vis-à-vis credit Insurance Factoring vis-à-vis Forfeiting. Depository: Meaning, Process of Dematerialization and Re-materialization. Brief description of NSDL and CDSL Depository, depository participants, SEBI guidelines relating to depository system.

Note: Relevant Case Studies should be discussed in class.

Suggested Readings:

1. Khan, M.Y. (2011). Financial Services. (6th Ed). Tata McGraw-Hill.

2. Bhole, L.M, Mahakud, Jitendra (2009). Financial Institutions & Markets. (5th Ed). Tata McGraw-Hill



- 3. Gurusamy S, (2009) Financial Services & System. (2nd Ed). Thomson Publications
- 4. Avdhani V. A. (2017) Financial Services in India. (3rd Ed). Himalaya Publications
- 5. Gordon & Natarajan. (2016) Financial Markets & Services. (11th Ed).Himalaya Publications
- 6. Pathak, Bharti V. (2009) *The Indian Financial System-Markets, Institutions and Services*. New Delhi: Pearson Education.
- 7. Harrington S. E. (2004). *Risk management and insurance: Instructor manual.* (2nd Ed.). New York: McGraw-Hill Publishing Company.
- 8 Madura, J. (2009). Financial markets and institutions. USA: South Western College.
- 9. Mishkin, F.S., & Eakins, F.S. (2009). Financial markets and institutions. (6th Ed.). New Delhi: Pearson Education.

BBA 531-18 Industrial Relations and Labour Laws

Course Objective: The objective of this course is to acquaint the students with the two important aspects of Industrial Relations namely Social Security and Labour Welfare.

Course Outcomes:

CO1: Understand establishing & maintaining a sound relationship between the worker & the

employer.

CO2: Identify and rectify the simmering issues which might take the form of a dispute in the

workplace.

CO3: Clarify the use & importance of various Acts & their uses in Industrial Relations.

CO4: Keep away from strikes & lockouts so as to enhance the economic status of the employee.

CO5: Understand the significance & functioning of Trade Unions

Unit-I

Concept of Industrial Relations: Concepts, Objectives, Scope, Importance, Participants, Essentials of effective Industrial Relations, Factors affecting Industrial Relations, Constraints of IR and approaches of IR. Trade Unions: Concept, Objectives, Types, Structure and Functions. Trade Unions Act, 1926: Objectives and definition, registration of trade unions, Rights and liabilities.

Unit-II

Industrial Conflict and Disputes: Introduction, Scope, Objectives, Manifestation of Conflict, provisions regarding strikes, lock-outs, layoff and retrenchment. Settlement of Industrial Disputes: Concept, Types, Conciliation Procedure and Practices in India; Adjudication – Concept and types; Arbitration: Approaches and types.

Unit-III

Factories Act: Object and definition, Health, Safety and welfare provisions, Provision of working hours for women and young persons. Basic Features of payment of wages Act, Minimum Wages Act and Basic features of Employees Provident Fund Act, and Payment of bonus act.

Unit-IV

I.L.O and Social Security: The concept of Labour welfare: Introduction, Evolution, Scope and Objectives, Theories and Types. Social Security, Role of Indian Labour Laws and International bodies such as ILO-Social Audit.

Note: Relevant Case Studies should be discussed in class.

Suggested Readings:-

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- Piyali Ghosh, Shefali Nandan (2015), "Industrial Relations and Labour Laws", Tata McGraw Hill Edition, New Delhi.
- 2. Monappa Arun, Nambudiri Ranjeet & Selvaraj Patturaja (2012), "Industrial Relations and Labour Laws", Tata McGraw Hill Edition, New Delhi.
- Mamoria, Mamoria and Gankar (2020) "Dynamics of Industrial Relations", Himalaya Publishing House, New Delhi.
- 4. T.N. Chabbra and R.K. Suri, Industrial Relations Concepts & Issues, Dhanpat Rai & Company
- Venkata Ratnam, C.S (2006). "Industrial Relations", Oxford University Press, New Delhi.
- 6. Srivastava, S. C (2008). "Industrial Relations and Labour Laws", Vikas Publishing House Pvt Ltd, New Delhi.
- 7. Sinha, P.R.N., Sinha, Indu Bala and Shekhar, Seema Priyadarshini (2004), "Industrial Relations, Trade Unions, and Labour Legislation", Pearson Education, New Delhi.
- 8. Sen Ratna (2003), "Industrial Relations in India", MacMillan, New Delhi.
- 9. Davar, R S (1999), Personnel Management and Industrial Relation, Vikas Publishing House Pvt. Ltd, New Delhi.
- 10. Sivarethinamohan, R (2010), Industrial Relations and Labour Welfare- Text and Cases, PHI Learning Pvt. Ltd, New Delhi.

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BBA 532-18

Organizational Change and Development

Course Objective: This course aims to introduce students to theories and concepts of organizational change and development and also it enhances the knowledge and understanding of organizational interventions terminology and provides students with the opportunity to apply the key concepts to practical organizational situations.

Course Outcomes: Upon completion of this course, students will be able to:

CO1: Develop understanding of organization change and illustrate theories of planned change.

CO2: Analyze the issues and problems arising out of organizational change initiatives.

CO3: Explain the meaning, objectives and process of organizational development.

CO4: Understand the role of various intervention strategies in organizational development.

CO5: Explain the issues in the consultant client relationship.

Unit I

Organisation Change: - Introduction, importance, forces of change and types of change. Models of change: - systems model of change, Lewin's Force Field Analysis Model, The model of change management, the process of change.

Unit II

Change & its impact: - effects of change on people, operational effects, psychological effects, social effects, people's reaction to change:- Acceptance of change, indifference, organized resistance, frustration & aggression, Reasons for resistance and Methods of minimizing resistance. Strategies of change.

Unit III

Organisation Development: - Meaning, features, objectives, History of OD, process of organizational development. OD interventions: - concept, characteristics, classification of intervention, OD interventions as tool to improve effectiveness of organization.

Unit IV

Training Experience: T-Groups, behaviour Modelling, Team building interventions, Issues in consultant client relationship.

Suggested Readings:

- Wendeel L. French, Cecil H. Bell (1999), "Organization Development" Prentice Hall
- 2. Burke W.W and Noumair, D. A. (2015), "Organization Development A Process of Learning and Change", Pearson Education
- Cummings, T. G. and Worley, C. G. (2008), "Organization Development & Change", Cengage Learning.
- Bhatia, S.K (2003), "Management of Change & Organisation Development-Innovative Approaches", Deep & Deep Publications, New Delhi.
- Bhattacharya, Dipak Kumar (2009), "Organization Change & Development", Oxford University Press.
- 6. Singh, Kavita (2009), "Organisation Change & Development, Excel Books.
- 7. S. Ramnarayan, and T.V. Rao (2011): OD Accelerating Learning & Transformation, Sage, New Delhi

BBA 601-18

Strategy Management

Course Objectives: The course aims at providing fundamental knowledge and exposure to the strategies at corporate level. It will help student understand the relationship amongst goals, objectives, strategies, tactics, plans, programs, procedures, rules etc.

UNITI

Strategic Management: Introduction, Nature & Scope, Need, Process of Strategic Management. Strategic Intent: Vision, Mission, Business Definition, Business Model Goals & Objectives.

Unit II

Strategy Formulation & process:

Environment Appraisal and Scanning: External & Internal Environment including PEST, Techniques for Environmental Scanning (SWOT, ETOP, Quest). Porter's Five forces Model, Methods and technique Used for Organizational Appraisal.

Unit III

Corporate Level Strategy: Concept, Stability, Expansion, Retrenchment, Combination, Strategy. Business Level Strategy: Concept, Porter's Generic Business Strategy. Strategic Choice: Concept, Process of Strategic Choice, BCG Matrix, GE Nine Cell Matrix.

UNIT IV

Strategic Implementation: Concept, Interrelationship between Formulation and Implementation, Aspects of Strategy Implementation (Behavioral Implementation, Resource Allocation). Strategic Evolution and Control: An Overview, Technique of Strategic Evolution and Control

Suggested Readings:

- 1. Azhar Kazmi(2007), "Business Policy and Strategic Manageent", Tata Mcgraw Hill
- 2. Jouch & Gluick, "Strategic Management & Business Policy", Tata Mcgraw Hill
- 3. Wheelen & Hunger (2008), "Strategic management & Business Policy", Pearson Education
- 4. Hill, Charles, W. L., Schilling, Melissa A., Jones, Gareth R. (2019), "Strategic Management: Theory & Cases: An Integrated Approach", Cengage Learning.

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BBA 602-18 Company Law

Course Objective: The objective of the course is to impart basic knowledge of the provisions of the Companies Act 2013. This course will provide better understanding of the different clauses of company law which a business manager must know for better decision making.

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1: Understand the basic concept and provisions of company law in business decision making.

CO2: Understand the concept of different types of companies and differentiate among them. CO3: Understand the process of formation of company and different documents required for

CO4: Understand the process of appointment and qualification of different types of directors of company

CO5: Understand the need of different meetings and process of winding up of company.

UNIT-I

Nature of a company: Definition of a company, Characteristics of a company, Lifting the corporate veil, Company distinguished from partnership. Types of companies including one person company, small company, associate company, dormant company, producer company; association not for profit; illegal association; Formation of a company: Steps involved in the formation and incorporation of a company, on-line filing of documents, promoters, their legal position, pre-incorporation contract; on-line registration of a company.

UNIT-II

Memorandum of Association: Meaning and Importance, Form and Contents, Alteration of Memorandum.

Articles of Association: Meaning, Relationship of and distinction between MOA and AOA. Prospectus: Meaning, Definition and contents, statutory requirements in relation to prospectus.

UNIT-III

Share capital: Kinds of share capital, Alteration of share capital, Ways for raising share capital, Allotment of shares

Company Management: Classification of directors, women directors, independent director, small shareholder's director; Disqualifications, director identity number (DIN); Appointment; Legal positions, powers and duties; removal of directors; Key managerial personnel, managing director, manager;

UNIT-IV

Meetings of shareholders and board; Types of meeting, convening and conduct of meetings, postal ballot, and meeting through video conferencing, e-voting.

Winding Up - Concept and modes of Winding Up. Administration of Company Law [including National Company Law Tribunal (NCLT), National Company Law Appellate Tribunal (NCLAT), Special Courts.

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Suggested Readings/Books:

- > Singh, Avtar (2018), "Company Law" Eastern Book Co., Lucknow
- > Kuchal M.C (2017), " Modern India Company Law" Shri Mahavir Books, Noida.
- Kapoor N.D.(2017), "Company Law-Incorporating the Provisions of the Companies, Amendment Act" Sultan Chand & Sons, New Delhi
- > Bagrial A.K. (2018), "Company Law" Vikas Publishing House, New Delhi.
- Ramaiya (2016), "A Guide to Companies Act" Wadhwa and Buttersworth.
- Manual of Companies Act, Corporate Laws and SEBI Guideline, Bharat Law House, New Delhi (2018)
- A Compendium of Companies Act 2013, along with Rules, by Taxmann Publications.
- Gower and Davies (2018), "Principles of Modern Company Law" Sweet & Maxwell Publishers
- Sharma J.P.(2018), "An Easy Approach to Corporate Laws" Ane Books Pvt. Ltd., New Delhi

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BMPD 602-18 Mentoring and Professional Development

Guidelines regarding Mentoring and Professional Development

The objective of mentoring will be development of:

- Overall Personality
- Aptitude (Technical and General)
- General Awareness (Current Affairs and GK)
- Communication Skills
- Presentation Skills

The course shall be split in two sections i.e. outdoor activities and class activities. For achieving the above, suggestive list of activities to be conducted are:

Part - A (Class Activities)

- 1. Expert and video lectures
- 2. Aptitude Test
- 3. Group Discussion
- 4. Quiz (General/Technical)
- Presentations by the students 5.
- 6. Team building Exercises

Part - B (Outdoor Activities)

- 16. Sports/NSS/NCC
- 17. Field project.
- 18. Society Activities of various students chapter i.e. ISTE, SCIE, SAE, CSI, Cultural Club, etc.

Note: Evaluation shall be based on rubrics for Part – A & B.

Mentors/Faculty incharges shall maintain proper record student wise of each activity

conducted and the same shall be submitted to the department.

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BBA 611-18 Services Marketing

Course objective:

This course aims at providing understanding among the graduate students to apply service marketing concepts and strategies to the create customer value in today's highly competitive environment.

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1: Understand fundamental concepts, nature and importance of Services Marketing.

CO2: Analyze the various factors that influence service marketing.

CO3: Understand the role of customers and employees in service delivery.

CO4: Understand how and why new service development takes palce.

CO5: Understand the emerging trends in field of service marketing.

Unit I

Introduction to Services: Reasons for growth of service sector, Contribution of service sector towards Indian economy. Service characteristics, classification of services, Extended Service marketing mix. Service Quality: SERVQUAL and integrated gaps model of service quality

Unit II

Service development and design: Challenges of service design, types of new services, core and supplementary elements, new service development process. Service blueprint, Physical evidence and the Servicescape.

Unit III

Role of employees and customers: service culture, employee's role in service delivery, strategies to deliver quality services. Customer Participation: introduction to role of customer in delivering services Role of intermediaries and electronic channels.

Unit IV

Services marketing communications: services marketing triangle, Pricing approaches for services. Emerging trends in services marketing.

Recommended Books

- 1. Zeithmal A Valarie and Bitner Mary, (2016) 'Services Marketing'. Tata McGraw Hill,
- 2. Lovelock, Christopher H.(2014) 'Services Marketing', Pearson Education .
- 3. Singh. P and Kaur R, (2017) 'Services Marketing', Kalyani Publishers.
- 4. Shajahan , (2010) "Service Marketing" Himalya Publishing.

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BBA 612-18

Retailing and Logistics Management

Course Objectives: The objective of this course is to make students understand the role of retailing and logistics management in overall management function and how to use that knowledge in designing effective retail strategy.

Course Outcomes: After studying this course, the students should be able to:

CO1: Understand Retail Environment, challenges and Retail formats in retailing in India.

CO2: Design Merchandise System for effective execution of retailing function.

CO3: Understand and recognize the importance of store design and apply the concepts of store design to determine store layout and merchandising.

CO5: Understand various activities in logistics system and its importance

CO6: To apply knowledge of Inventory management, Transportation, warehousing, Packaging in designing overall strategy of Logistic Function

Introduction to Retailing: Meaning and Economic Significance, Opportunities in Retailing, Types of Retailers Retailing in India: Evolution of Retail in India, Drivers of Retail Change and Challenges to Retail Development in India.

Retail formats: Food Retailers, General Merchandise Retailers, Non-Store Retail Formats, Unit-II:

Planning and Merchandise Management for Retail Outlets: Meaning, Sales Forecasting Services Retailing, and Types of Ownership for Merchandise Plan, Assortment Planning process, Finance and location Strategists for Retailing, Store Management Responsibilities.

Recruiting & Selecting Store Employees, Socializing & Training New Store Employees

Store Layout, Design & Visual Merchandising: Objectives of Good Store Design, Store Layout. Space Planning and Merchandise Presentation Techniques.

Introduction, Objectives of logistics, Types of logistics, Role of Logistics in an

Inventory Management: Introduction, Objectives, Types of Inventory, Importance of inventory management, Different Types of Inventory Costs, Inventory Performance Measures in Logistic Management.

Note: Relevant Case Studies should be discussed in class.

- 1. Levy, Michael and Barton A. Weitz (2003), Retail Management, Tata McGraw Hill, 5th
- 2. Sinha, P. K. and Uniyal, D. P. (2007), Managing Retailing, Oxford, 1st Edition.
- 3.Newman, Andrew J. and Peter Cullen (2007), Retailing: Environment and Operations, Thomson, 1st Edition. Operations, Thomson, 1st Edition. Dean (P&EP)



- 4. Pradhan, Swapna (2007), Retail Management Text and Cases, Tata McGraw Hill, 2nd Edition.
- 5.Sople(2009),Logistic Management, Pearson Education India ,3rd Edition.
- 6. Alan Rushton, Phil Croucher, Peter Baker, The Handbook of Logistics and Distribution Management: Understanding the Supply Chain (5th Edition):.
- 8. Satish C Ailawadi, Rakesh Singh(2005). Logistic Management Prentice-Hall Of *India* Pvt. Limited.

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BBA 621-18 Personal Financial Planning

Course Objective - This course aims to acquaint students with the knowledge regarding personal financial planning its importance, methods and various instruments that may be considered for it.

Course Outcomes:

CO1 – To familiarise students with the concept, objectives and importance of personal financial planning.

CO2 - To enable the students to understand the implications of environmental factors

CO3 – To familiarize students with the concepts of time value of money on the personal financial statements and their use in personal financial planning.

CO4 – To enable students to identify various types of risks any individual is exposed to and how they can hedge diversifiable risk.

CO5 – To familiarise students with various instruments available for investment by an individual for achieving their personal financial goals.

Unit I

Personal Financial Planning: Introduction, features, objectives and scope of personal financial planning.

Environmental Analysis: Screening and analysis of environmental factors affecting personal financial planning.

Unit II

Time Value of Money Personal Financial Statements: Meaning and calculation of present value and future value of money. Factors affecting the time value of money and its impact on the personal financial statements.

Personal Risk Management: Meaning of risk, measurement of risk and its identification, introduction to life insurance and general insurance. Insurance planning for the individual as well as family.

Unit III

Investment Planning: Meaning, process, importance and objectives of investment planning.

Investment Instruments for Personal Financial Management: Introduction to various tax saving financial instruments, Mutual fund schemes, Fixed income securities (Government bonds, corporate debt securities, bank deposits, fixed income plans by mutual funds, post office saving schemes etc.), Capital market instruments, Money market instruments and Real Assets.

Unit IV

Retirement Planning: Meaning, nature, importance, scope and process of retirement planning

Estate Planning: Meaning, nature, importance, scope and documentation in estate planning

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Suggested Readings:

- 1. Walker, R. B and Walker, K. P. (2017) 'Personal Finance: Building Your Future', McGraw Hill Education.
- 2. Kapoor, J. R., Dlabay, L. R., Hughes, R. J. and Hart, M. M. (2020) 'Personal Finance', McGraw Hill Education.
- 3. Madura, J. (2020) 'Personal Finance', Pearson Education.
- 4. Benjamin, G. (2006) 'Intelligent Investor: The Definitive Book on Value Investing' HarperCollins Publisher, Reprinted.
- 5. Murali, S. and Subakrishna, K. R. (2018) 'Personal Financial Planning (Wealth Management)', Himalaya Publishing House.

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BBA 622-18 Direct and Indirect Tax Laws

Course Objective - To enable the students to understand the importance, implication and computation of direct and indirect taxes in India

Course Outcomes:

CO1 – The students will be familiarised with the concepts, framework and incidence of taxes in India.

CO2 – To acquaint students with the provision of the current finance act with regard to various heads of income.

CO3 – To enable students to compute the tax liability of individuals after considering their residential status, various exempted incomes, permissible deduction, clubbing of income and setting off of losses.

CO4 – To familiarize students with the concepts of Value Added Tax, excise duty and custom duty.

CO5 – To enable students to understand the concept and importance of One-Nation-One-Tax system brought in India through Goods and Services Tax.

CO6 - To enable students to understand the framework and structure of GST.

CO7 – To acquaint students with the process of tax credit and refund of GST.

UNITI

Introduction: Meaning and constitutional framework of taxation in India. Difference between direct and indirect taxes

Introduction to Direct Tax: Basic concepts, Agricultural income and its assessment, Basis of charge, Residential status of an assesse, Exempted incomes

Income from Salaries: Meaning, Allowance and Perquisites, Standard deduction, computation of taxable salary income.

Unit II

Income from House Property: Meaning of rental income, treatment of interest on housing loan, computation of taxable income from house property

Profits and Gains from Business or Profession: Meaning, various admissible and non-admissible expenses, treatment of depreciation, copyright, patents and expenditure on research and development.

Unit III

Capital Gains: Meaning of short-term and long-term capital gains, various exempted capital gains u/s 54

Income from Other Sources; Clubbing of Income, Setting off and Carry forward of losses, Deductions u/s 80

Unit IV

Introduction and basic features of Central excise, Customs duty and Value added Tax.

Good and Service Tax: Meaning, features, advantages and history of GST in India. Goods and Services Tax Act



GST Council and GST Network

Rates structure of GST, Scope of supply, Composition Scheme under GST, Assessment (only basic concepts), Process of tax credit and refunds

Suggesting Readings:

- 1. Mehrotra, H. C. and Goyal, S. P. (2020) 'Income Tax Law and Practice' Sahitya Bhawan Publications.
- 2. Ahuja, G. and Gupta, R. (2020) 'Practical Approach to Direct and Indirect Taxes: Containing Income Tax and GST', Wolters Kulwer.
- 3. Singhania V. K. and Singhania, M. (2020) 'Students' Guide to Income Tax Including GST Problems & Solutions', Taxmann Publications.
- 4. Gaur, V. P. and Narang, D. B. (2020) 'Income Tax Law and Practice' Kalyani Publishers.
- 5. Datey, V. S. (2020) 'Indirect Taxes: Law and Practice' Taxmann Publications.

BBA 631-18

Training and Development

Unit I

Training and Development:- Conceptual aspects, objectives and importance of Training and Development. Process of Training and Development: Identification of training needs, methods of need assessment.

Unit II

Designing Effective Training Program: factors affecting training design, budget for training, selecting and preparing training site, choosing the trainers, program design.

Unit III

Methods of Training: Traditional and Modern methods, Use of technology in training. Training Evaluation: Testing effectiveness of training, Introduction, Reasons for evaluation, evaluation process, outcomes used for evaluation of training, evaluation practices.

Unit IV

Employee Development: approaches to employee development, Designing development programmes. Development Methods: Case studies, Role play and Sensitivity Training, Business Games, Behavior Modelling.

Suggested Readings:

1. Noe, Raymond, A (2017). "Employee Training and Development" McGraw Hill.

2.Raymond, A. N. and Kodwani, A. D. (2018) "Employee Training and Deevelopment" McGraw Hill.

3. Craig, Robert (2005) "Training and Development Handbook" McGraw Hill, New York

4. Rajshree Shinde, Abhilasha, A. and Ramakumar, A. (2015) "Human Resource Development" Himalaya Publishing House.

5. N. Sambasiva Rao and Yvvsss Vara Prasad (2018), "Training and Development", Himalaya Publishing House.

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BBA 632-18

Cross Cultural Human Resource Management

Course Objective: The course has been designed to make the students aware of the changing role of HR in international organizations having large number of subsidiaries which are operating in different countries and cultures as compared to the domestic companies.

Course Outcomes:

- CO1: Understand issues, opportunities and challenges pertaining to international Human Resource Management.
- CO2: Develop competency in dealing with cross cultural situations.
- CO3: Understand the strategic and functional roles of HRM in various international contexts, especially in areas such as recruitment and selection, performance management, training, learning and development, career management, compensation, motivation and repatriation;
- CO4: Identify the role of cross-cultural leadership in managing multicultural teams.
- CO5: Understand external forces (e.g. globalisation, sociocultural changes, political and economic changes) that have the potential to shape international HRM.

Unit -I

Introduction to Cross Cultural Management:

Introduction to cross cultural management: Understanding Culture, Culture dimensions, Significance and impact of cross culture on organization, Role of culture in Strategic Decision Making. Influence of National Culture on Organizational Culture. Difference between Domestic and International Human Resource Management.

Unit-II

Shift in Culture: significance of shift in Culture, Influence of economic factors and foreign intervention on shifts in local cultures.

Comparing Culture: Cultural and behavioral differences in different countries, various models for comparing cultural- Hofstede, GLOBE Model.

Unit -III

Staffing and Training for Global Operations Global Staffing Choices: Approaches to Staffing, Transferring Staff for International Business Activities, Role of Expatriates and Non-

Expatriates. Cultural Adaptation through Sensitivity Training. Dynamics of Cross-Cultural leadership.

Unit -IV

Managing and motivating multi culture teams. Cross -cultural Negotiation & Decision making, Culture and Dispute, Resolution of Conflicts and Disputes in cross culture context, Cross-culture ethics: Ethics values across cultures and Ethics dilemma

Note: Relevant Case Studies should be discussed in class.

Suggested Readings: -

- Luthans, F. and Jonathan D. P. (20120 "International Management: Culture, Strategy and Behavior" Tata McGraw-Hill Education, New Delhi.
- Peter, J. Dowling and Denice, E. Welch (2007), "International Human Resource Management", Thomson Publishers, New Delhi.
- David .C. T. and Mark F. P. (2008) Cross-Cultural Management: Essential Concepts, Sage Publishers
- Thakur, M., Burton & Gene, E (2002). International Management. Tata McGraw Hill
- Tayeb, Monir (2005), "International Human Resource Management: A Multinational Company Perspective", Oxford University Press.
- K .Aswathappa (2012) , "International Human Resource Management", McGraw Hill, New Delhi.
- · Deresky, Helen (2000), "International management: Managing across borders and cultures", Pearson Education India.
- S. C. Gupta (2006), "International Human Resource Management", Macmillan India Ltd.
- Hodgetts, R. and Luthans, F. (2003). International Management. McGraw Hill Inc.

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Annexure "C"

To review course outcomes and program outcomes of all programmes.

Agenda Item No. 3.9.6

Sr. No.	Department Name	Status	Annexure
1	Electrical Engineering		-
2	Electronics Communication Engineering	Information is attached as per Annexure-VI	Annexure-VI
3	Civil Engineering	The work will be taken up in subsequent meetings of BoS.	
4	Management	The Board of Studies, Management and Commerce (University Campus) had designed the curriculum of MBA and BBA programs being offered by the Department of Management. The curriculum also include Program Educational Objectives (PEOs), Program Outcomes (Pos) and Course Outcomes (COs). Syllabus of MBA (Annexure-IV) and BBA (Annexure-V) are attached.	
5	Mechanical Engineering	Implemented by BOS of Mechanical Engineering	
6	Chemical Sciences	Already Done	-
7	Physical Sciences	Course outcomes and program outcomes of all program under the BOS (Physics) have mapped in their study scheme. Details of such courses is given below: 1. M.Sc (Physics) 2. All engineering Physics. 3. All subject of B.Sc (Physics)	•
8	Journalism & Mass Communication	It has already been in corporated in syllabus.	-
9	Humanities Languages Cultural Studies	The course outcomes may be put up in the next meeting of BoS.	



Annexure -IV

Study Scheme and Syllabus of

Master of Business Administration (MBA)

Batch 2018 onwards



Department of Academics
IK Gujral Punjab Technical University

I.K.G. Punjab Technical University MBA Batch 2018 onwards

Courses & Examination Scheme:

First Semester

Course	Course Type	Course Title	Load	Alloca	tions	Marks D	istribution	Total Marks	Credits
Code	I WA	(1997年) · · · · · · · · · · · · · · · · · · ·	L*	T*	P	Internal	External		
MBA 101-18	Core Theory	Foundations of Management	4	- 0	0	40	60	100	:4
MBA 102-18	Core Theory	Managerial Economics	4	0	0	40	60	100	4
MBA 103-18	Core Theory	Quantitative Techniques	4	0	0	40	60	100	4
MBA 104-18		Accounting for Management and Reporting	4	0	0	40	60	100	4
MBA 105-18	Core Theory	Business Environment and Indian Economy	4	0	0	40	60	100	4
MBA 106-18	Core Theory	Business Ethics and CSR	4	0	0	40	60	100	4
MBA 107-18	Core Theory	Business Communication for Managerial Effectiveness	4	0	0	40	60	100	4
	TOTAL		28	0	0	280	420	700	28

Second Semester

Course	Course Type	Course Title	Load	Alloca	tions	Marks D	istribution	Total	Credits
Code	建筑基础 。	Market September 199	L*	T*	Р	Internal	External	Marks	
MBA 201-18	Core Theory	Business Analytics for Decision Making	4	0	.0	40	60	100	4
MBA 202-18	Core Theory	Legal Environment for Business	4	0	0	40	60	100	A
MBA 203-18	Core Theory	Marketing Management	4	0	0	40	60	100	4
MBA 204-18	Core Theory	Human Resource Management	4	0	0	40	60	100	4
MBA 205-18	Core Theory	Production and Operations Management	4	0	0	40	60	100	4
MBA 206-18	Core Theory	Corporate Finance and Indian Financial System	4	0	0	40	60	100	4
MBA 207-18	Core Theory	Entrepreneurship and Project Management	4	0	0	40	60	100	4
MBAGE 201-18	General Elective	Computer Applications for Business	2	0.	0	40	60	100	2
	ТО	TAL	30	0	0	320	480	825	30

Note: After second semester every student will be required to undergo summer training of six weeks duration in the corporate sector.

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MBA Batch 2018 onwards

Third Semester

Course Code	Course Type Course Title	Loa	l Alloe	ations		arks ibution	Total Marks	Credits	
		1000 1000 1000 1000 1000 1000 1000 100	L*	T*	P	Internal	External		
MBA 301-18	Core Theory	Organizational Behaviour & Design	4	0	0	40	60	100	4
MBA 302-18	Core Theory	Marketing Research	4	0	0	40	60	100	4 .
	Elective	Major-I	4	0	0	40	60	100	4
	Elective	Major-II	4	0	0	40	60	100	4
	Elective	Minor-I	4	0	0	40	60	100	4
	Elective	Minor-II	4	0	0	40	60	100	4
HVPE101-18	Ability Enhancement Compulsory Course (AECC)	Human Values, De-addiction and Traffic Rules	3	0	0	40	60	100	3
HVPE 102-18		Human Values, De-addiction and Traffic Rules (Lab/ Seminar)	0	0	2	25		25	1
MBA 303-18		Seminar on Summer Training Report	- 4 ×	2		50		50	2
		TOTAL	27	0	2	355	420	775	30

Note: Students will opt any two of the following groups (1 as Major and 1 as Minor).

List of Electives:

Group A: Marketing

Course Code	Course Type	Course Title	Load	Load Allocations			istribution	Total Marks	Credit;
			L*	T*	P	Internal	External		
MBA 921-18	Elective	Consumer Behaviour	4	0	0	40	60	100	4
MBA 922-18	Elective	Services Marketing	4	0	0	40	60	100	4

Group B: Finance

Course Code	Course Type	Course Title	Load Allocations			Marks D	istribution	Total Marks	Credits
			L*	T*	Р	Internal	External		
MBA 911-18	Elective	Investment Analysis and Portfolio Management	4	0	0	40	60	100	4
MBA 912-18	Elective	Management of Financial Services	11/4	0	0	40	60	100	4

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Group C: Human Resource Management

Course Code	Course Type	Course Title	Load	Load Allocations			stribution	Total Marks	Credits
			L*	T*	Р	Internal	External	Marks	
MBA 931-18	Elective	Organizational Change and Development	4	0	0	40	60	100	· · · · · · · · · · · · · · · · · · ·
MBA 932-18	Elective	Employee Relations	4	0	0	40	60	100	4

Group D: Management Information Systems

Code	Course Type	Course Title	Load	Alloca	tions	Marks D	istribution	Total Marks	Credits
			L	Т	P	Internal	External		
MB 941-18	Elective	Data Mining for Business Decisions	4	0	0	40	60	100	4
MB 942-18	Elective	E-Commerce and Digital Markets	4	0	0	40	60	100	4

Fourth Semester

Course Code	Course Type	Course Title	Load	Alloca	tions	Marks D	istribution	Total Marks	Credits
	1. 理論方		L*	T*	Р	Internal	External		
MBA 401-18	Core Theory	Corporate Strategy	4	0	0	40	60	100	4
	Elective	Major-III	4	0	0	40	60	100	6574 640
	Elective	Major-IV	4	0	0	40	60	100	4
	Elective	Major-V	14	0	0	40	60	100	4
	Elective	Major-VI	4	0	0	40	60	100	4
MBA 402-18	Project / Dissertation			4		We con	100	100	4
MBA 403-18	Core Theory	Workshop on Indian Ethos	2	0	0	40	60	100	2
		TOTAL	22	0	4	240	360	600	26

Note: Four papers of any one group chosen in the 3rd Semester will be studied as electives of Major in the 4th semester.



I.K.G. Punjab Technical University MBA Batch 2018 onwards List of Electives:

Group A: Marketing

Course Code	Course Type	Course Title	Load	Load Allocations			istribution	Total Marks	Credits
			L*	T*	P	Internal	External		
MBA 923-18	Elective	Integrated Marketing Communication and Sales Management	4	0	0	40	60	100	4
MBA 924-18	Elective	Retail Management	4	0	0	40	60	100	4
MBA 925-18	Elective	International and Social Media Marketing	4	0	0	40	60	100	4
MBA 926-18	Elective	Product and Brand Management	4	0	0	40	60	100	4

Group B: Finance

Course Code	Course Type	Course Title	Load	Load Allocations			istribution	Total Marks	Credits
			L*	T*	Р	Internal	External	100	124
MBA 913-18	Elective	Behavioural Finance	4	0	0	40	60	100	4
MBA 914-18	Elective	Mergers, Acquisition and Corporate Restructuring	4	0	0	40	60	100	4
MBA 915-18	Elective	International Finance and Financial Derivatives	4	0	0	40	60	100	4
MBA 916-18	Elective	Taxation and Personal Financial Planning	4	0	0	40	60	100	4

Group C: Human Resource Management

Course Code	Course Type	Course Title	Load	Load Allocations			istribution	Total Marks	Credits
			L*	T*	Р	Internal	External	lana a	
MBA 933-18	Elective	International Human Resource Management	4	0	0	40	60	100	4
MBA 934-18	Elective	Strategic HRM	4	0	0	40	60	100	4
MBA 935-18	Elective	Leadership and Team Dynamics	4	0	0	40	60	100	4
MBA 936-18	Elective	Performance and Compensation Management	4	0	0	40	60	100	4

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Group D: Management Information Systems

Course Code	Course Type	Course Title	Load Allocations			Marks Distribution		Total Marks	Credits
			L	T	P	Internal	External		
MB 943-18	Elective	Managing Software Projects	4	0	0	40	60	100	4
MB 944-18	Elective	Managing Digital Information and Transformation	4	0	0	40	60	100	4
MB 945-18	Elective	IT Consulting	4	0	0	40	60	100	4
MB 946-18	Elective	Strategic Management of IT	4	0	0	40	60	100	1

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Program Educational Objectives (PEOs)

PEO1: To inculcate knowledge in students with experiential learning and prepare the for advance study and life long learning.

PEO2: To develop strategic understanding of fundamental principles of business and competencies in the area of accounts, marketing, interpersonal skills, human resource management and entrepreneurship.

PEO3: To train the students for dynamic business environment and apply their perspectives through innovation and creativity.

PEO4: To develop competencies in qualitative and quantitative techniques to analyse the business data as well as developing an understanding of economic, legal and social environment of Indian business.

PEO5: To inculcate leadership skills, professionalism, effective communication skills, interpersonal skills and team work in students so as to enable them to manage and collaborate in diverse work environments.

PEO6: To develop responsiveness to social issues and ability to identify business solutions to address the same. Students will also be able to understand the issues of business ethics.

Program Outcomes (POs)

The program outcomes specify the knowledge, skills, values and attitudes students are expected to attain in courses or in a program. The six outcomes of MBA program are as below:

- 1. Business Environment and Domain Knowledge: Economic, legal and social environment of Indian business. Graduates are able to improve their awareness sand knowledge about functioning of local and global business environment and society. This helps in recognizing the functioning of businesses, identifying potential business opportunities, evolvement of business enterprises and exploring the entrepreneurial opportunities.
- 2. Critical thinking, Business Analysis, Problem Solving and Innovative Solutions: Competencies in quantitative and qualitative techniques. Graduates are expected to develop skills on analysing the business data, application of relevant analysis, and problem solving in other functional areas such as marketing, business strategy and human resources.
- 3. Global Exposure and Cross-Cultural Understanding: Demonstrate a global outlook with the ability to identify aspects of the global business and Cross Cultural Understanding.
- 4. Social Responsiveness and Ethics: Developing responsiveness to contextual social issues / problems and exploring solutions understanding business ethics and resolving ethical dilemmas. Graduates are expected to identify the contemporary social problems,



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exploring the opportunities for social entrepreneurship, designing business solutions and demonstrate ethical standards in organizational decision making. Demonstrate awareness of ethical issues and can distinguish ethical and unethical behaviors.

5. Effective Communication: Usage of various forms of business communication. supported by effective use of appropriate technology, logical reasoning, articulation of ideas. Graduates are expected to develop effective oral and written communication especially in business applications, with the use of appropriate technology (business presentations, digital communication, social network platforms and so on).

6. Leadership and Teamwork: Understanding leadership roles at various levels of the organization and leading teams. Graduates are expected to collaborate and lead teams across organizational boundaries and demonstrate leadership qualities, maximize the usage of diverse skills of team members in the related context.

(Source: Model Curriculum for Management programs (MBA) January, 2018, AICTE, New Delhi, www.aicte.india.org)

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MBA 101-18

FOUNDATIONS OF MANAGEMENT

Objective: This course presents a thorough and systematic coverage of management theory and practice. The course aims at providing fundamental knowledge and exposure of the concepts, theories and practices in the field of management. It focuses on the basic roles, skills and functions of management, with special attention to managerial responsibility for effective and efficient achievement of goals.

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1: Describe fundamental concepts and principles and conventions of accounting.

CO2: Explain the role and responsibilities of managers and adapt to the various styles of management across organizations.

CO3: Develop analytical abilities to face the business situations.

CO4: Apply various tools that would facilitate the decision making process in the business.

CO5: Develop peer based learning and working in groups and teams.

CO6: To comprehend the application of various controlling techniques in management.

Unit I

Introduction: Definition, nature, scope, importance, Functions of management and manager, Managerial roles and skills.

Evolution of management thought and Management thinkers: Classical Approach, Neo Classical Approach, Quantitative approach, Behavioral approach, Systems approach, Contingency approach. Contributions of F. W. Taylor, Henry Fayol, Mary Parker Follet, Chester Bernard, Max Weber, Peter, F. Drucker, Gilbreths, Henry Gantt, Abraham Maslow, Herzberg and McGregor.

Unit II

Planning: Importance, types of plans, and process of planning, business forecasting, MBO: Concept, importance, process, benefits and limitations.

Strategic management: Nature, importance, purpose, types, process and major kinds of strategies, McKinsey's 7-S Approach.

Decision-Making: Importance, types, steps and approaches, Decision Making in various conditions, Decision tree.

Unit III

Organizing: Concept and process of organizing, Formal Vs Informal organization, Organizational structure: Types of Organizational structure, Bases of Departmentalization. Line &Staff: concept, line-staff conflict.

Authority & Power: concept, responsibility and accountability. Delegation: concept, importance, factors affecting delegation, effective delegation, Span of Management,

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Decentralization and centralization, **Staffing**, importance and process. **Coordination**: Concept, importance, difficulties and techniques to ensure effective coordination.

Unit IV

Control: Concept, importance, characteristics, process of control, types and techniques of control.

Comparative study: Japanese Management and Z-culture of American Companies, Chinese Style Management,

Modern management techniques: an overview of various latest techniques: Business process Re-engineering, Business outsourcing, knowledge management, E-Business Management.

Note: Relevant Case Studies should be discussed in class.

Suggested Readings:

- Harold Koontz, and Heinz Weihrich, Essentials of Management: An International Perspective, New Delhi, McGraw-Hill, 2010.
- Richard L Daft, The New Era of Management, New Delhi, Thomson, 2007.
- Stephen P Robbins, Mary Coulter and Neharika Vohra, Managemnt, New Delhi, Pearson, 2011.
- V S P Rao & V H Krishna, Management, Excel Books
- P.Subba Rao, Principles of Management, Himalaya Publishing
- Dubrin, Management: Concepts & Cases, Cengage Learning
- Ferrell, Business: A Changing World, Tata McGraw Hill
- Mukherjee, Principles of Management and Organisational behaviour, Tata McGraw Hill.

Bateman, T. S., and Snell, S. A. (2008). Management MH

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MBA 102-18 Managerial Economics

Objective: The objective of the paper is to acquaint the students with the economic concepts and principles and to enable them to use them to address business problems in a globalized economic environment.

Course Outcomes: After completing this course,, students shall be able to:

CO1: Understand the basic concepts of economics and relate it with other disciplines and identify the importance of economics in managerial decision making.

CO2: Measure price elasticity of demand, understand the determinants of elasticity and apply the concepts of price, cross and income elasticity of demand.

CO3: Analyze the demand and supply conditions and assess the position of a company and explain the concepts of factors of production, collective bargaining and the underlying theories of factors of production.

CO4: Recognize the relationship between short-run and long-run costs and will also be able to establish the linkage between production function and cost function

CO5: Compare and contrast four basic types of market i.e. perfect, monopoly, monopolistic and oligopoly and can determine price and output under different market types.

CO6: Understand basic concepts of macroeconomics and shall be able to measure national income using different approaches.

Unit-I

Introduction to Managerial Economics: Managerial Economics: Meaning, Nature, Scope & Relationship with other disciplines, Role of managerial economics in decision Making, Opportunity Cost Principle, Production Possibility Curve, Incremental Concept, Scarcity Concept.

Demand: Demand and its Determination: Demand function; Determinants of demand; Demand elasticity – Price, Income and cross elasticity, Use of elasticity for analyzing demand, Demand estimation. **Demand forecasting,** Demand forecasting of new product. **Indifference Curve Analysis:** Meaning, Assumptions, Properties, Consumer Equilibrium, Importance of Indifference Analysis, Limitations of Indifference Theory.

Unit-II

Production Function: Production function Meaning, Concept of productivity and technology, Short Run and long run production function, Isoquants; Least cost combination of inputs, Producer's equilibrium; Returns to scale; Estimation of production function. Theory of Cost: Cost Concepts and Determinants of cost, short run and long run cost theory, Modern Theory of Cost, Relationship between cost and production function. Revenue Curve: Concept of Revenue, Different Types of Revenues, concept and shapes of Total Revenue. Everage revenue and marginal revenue,

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Relationship between Total Revenue, Average revenue and marginal revenue, Elasticity of Demand and Revenue relation.

Unit-III

Market Structure: Market Structure: Meaning, Assumptions and Equilibrium of Perfect Competition, Monopoly, Monopolistic Competition, Oligopoly: Price and output determination under collusive oligopoly, Price and output determination under non-collusive oligopoly, Price leadership model. Supply: Introduction to supply and supply curves. Pricing: Pricing practices; Commodity Pricing: Economics of advertisement costs; Types of pricing practices. Factor Pricing: Demand and supply of factors of production; Collective bargaining, Concept of rent, profit, interest- Rate of return and interest rates; Real vs. Nominal interest rates. Basic capital theory—Interest rate and return on capital, Measurement of profit.

Unit-IV

Product market: Saving and Investment function, Consumption function, Aggregate supply and Aggregate demand, Investment multiplier, Foreign trade and budget multiplier. Money market: Motive for holding money; Liquidity preference, Money demand, Money market equilibrium. IS-LM Analysis: Derivation of nominal IS-LM and equilibrium. National Income: Conceptual Framework, Measures of National Income, Methods of Measurement, Limitations of National Income. Consumption Function: Meaning, and Nature, Determinants and Measures to Raise Propensity to Consume. Keynes Psychological Law of Consumption - Meaning, Properties and Implications, Inflation: Meaning, Types, Theories, Causes, Effects and Control, Unemployment Trade off, Trade Cycles: Concept and Theories of trade cycles.

Note: Relevant Case Studies will be discussed in class.

Suggested Readings/ Books:

- D. M. Mithani, Managerial Economics Theory and Applications, Himalaya Publication
- Peterson and Lewis, Managerial Economic, Prentice Hall of India
- Gupta, Managerial Economics, Tata McGraw Hills
- Geetika, Managerial Economics, Tata McGraw Hills
- Froeb, Managerial Economics, Cengage Learning
- Koutsoyiannis, A, Modern Micro Economics, Palgrave Macmillan Publishers, New Delhi. 2.
- Thomas Christopher R., and Maurice S. Charles, Managerial Economics Concepts and Applications, 8th Edition,
- Peterson and Lewis, Managerial Economics, 4th Edition, Prentice Hall of India Pvt. Ltd., New Delhi.
- · Shapiro, Macro Economics, Galgotia Publications.
- H. L Ahuja Advanced Economic Analysis, S. Chand & Co. Ltd, New Delhi. 7.
- G.S Gupta, Managerial Economics, Tata McGraw Hill.
- Goel Dean, Managerial Economics, Prentice Hall of India, Pvt. Ltd., New Delhi
- K.K. Dewett, Modern Economic Theory, S. Chand Publication

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MBA 103-18 QUANTITAIVE TECHNIQUES

Course Objective: The objective of this paper is to acquaint the students with quantitative and operations research techniques that play an important role in managerial decision-making.

CO1: To have a deeper and rigorous understanding of fundamental concepts in business decision making under subjective conditions.

CO2: To apply the concepts of central tendency and variation in managerial decision making.

CO3: To enhance knowledge in probability theory and normality and its distribution concepts.

CO4: To understand the concept of correlation regression analysis and their applications.

CO5: To apply the learnt techniques to build the best fit route of transportation for carrying schedule of activities.

CO6: To apply the operations techniques in reality to market scenario.

Unit I

Introduction to Statistics: Meaning, Definition in singular and plural sense, Features of statistics, Importance, Functions, Scope and Limitations of Statistics.

Measures of Central Tendency: Mathematical averages including arithmetic mean, geometric mean and harmonic mean, properties and applications. Positional Averages: Mode and median (and other partition values including quartiles, deciles and percentile. Graphic presentation of measures of central tendency.

Measures of Variation: Absolute and relative measures. Range, quartile deviation, mean deviation, standard deviation and their coefficients. Properties of Standard Deviation and Variance. Moments Concept, calculation and Significance. Skewness: Meaning, Measurement using Karl Pearson and Bowley Measures. Concept of Kurtosis.

Unit II

Simple Correlation Analysis: Meaning of Correlation: Simple ,multiple and partial, linear and non linear correlation, correlation and causation ,scatter diagram, pearson's correlation coefficient, calculation and properties of coefficient, Rark Correlation.

Simple Regression Analysis: Meaning of Regression, Principle of least square and regression analysis, Calculation of regression coefficient, properties of regression coefficient, Relationship between correlation and regression coefficientg.

Theory of Probability: Meaning of Probility, Approaches to the calculation of probabability.calculation of event probabilities, Addition and Multiplication Laws of Probability (Proof not required), Conditional Probability and Bayes' Theorem (Proof not required).

Unit III

Probabability Distribution: Binomial Distribution, Poission Distribution and Normal Distribution with threir properties ad applications.

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Linear Programming; Formulation of linear programming problems. Solution by Graphic method and by using Simplex method algorithm including Big-M method. Business applications of LP. Degeneracy. Duality. Post-optimality analysis.

Game Theory: Two-person zero-sum games. Games of pure strategies and Games of mixed strategies. Rule of dominance. Graphic solution to games. Business applications.

Unit IV

Transportation: Transportation problem: Initial feasible solution using North-west Corner Rule; Least Cost Method; and Vogel's Approximation Method. Testing optimality using MODI method.

Assignment Problems: Assignment problem: Solution using Hungarian Assignment

Method.

Project Scheduling: PERT/CPM: Project networks. Scheduling of projects with known activity times - Critical path and scheduling of activities.

Suggested Readings:

- · Levin, Richard and David S. Rubin. "Statistics for Management". 7th Edition,
- Prentice Hall of India, New Delhi.
- Render, B. and Stair, R. M. Jr., "Quantitative Analysis for Management", 7th Edition, Prentice-Hall of India, New Delhi.
- Siegel, Andrew F, Practical Business Statistics. International Edition, 5th Edition (2001), McGraw Hill Irwin.
- Berenson, L.M., Krehbiel, T.C., Vishwanathan, P.K. and Levine, D.M., "Business Statistics: A First Course", 4th Edition (2008), Pearson Education.
- Anderson, David R., Dennis J. Sweeney and Thomas A., Williams, An Introduction to Management Science, South-Western.
- Taha, Hamdy A, Operations Research An Introduction, Prentice-Hall of India Private Ltd., New Delhi.
- Hillier, Frederick S. and Gerald J. Lieberman, Introduction to Operations Research, McGraw Hill India (Pvt) Ltd.
- Vohra, N.D., Quantitative Techniques in Management, McGraw Hill Education Private Limited, New Delhi.
- Sharma, J. K., Operations Research; Theory and Applications, Macmillan Indian, New Delhi.
- Winston, Wayne L., S. Christian Albright and Mark Broadle, Practical Management Science, Duxbury - Thompson learning, Australia.

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Gupta C B, Gupta V, "An Introduction to Statistical Methods", 23rd Edition (1995), Vikas Publications.

Note: Latest edition of the readings may be used.

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MBA 104-18 ACCOUNTING FOR MANAGEMENT AND REPORTING

Objective: This course aims to familiarize the students with various accounting concepts, tools and techniques and its application in managerial decision making. It also acquaints the students with the latest accounting practices and reporting standards.

Course Outcomes:

CO1 – To familiarize the students about the basic concepts, principles and process of accounting and to make them aware about the formats of financial statements of public limited, banking and insurance companies.

CO2 - To explain the students about the concepts of cost and various intricacies for preparing the cost sheet.

CO3 – To acquaint students about the decision making techniques using the concepts of marginal costing, standard costing and budgetary control.

CO4 – To enable the students to analyse financial statements using various tools for financial analyse and interpret the financial position of a business organization.

CO5 - To familiarize the students about the contemporary developments in the accounting.

CO6 – To make students aware about the recent developments in financial reporting and regulations so that they may understand and appreciate the concept and process of harmonization of financial reporting practices.

Unit I

Introduction to Accounting: Accounting as an information system, Accounting Process, concepts, convention and principles of Accounting, Role of accountant in an organization. Branches of accounting: Financial, Cost and Management Accounting and their inter-relationships, Exposure to format of schedule VI of Public Limited, Banking and Insurance Companies.

Unit II

Cost Accounting: Meaning, Objectives, Scope and Classification of costs, Preparation of Cost Sheet. Marginal Costing —Concept of Marginal Cost; Marginal Costing Vs Absorption Costing; Cost-Volume-Profit Analysis; Break-Even Analysis; Assumptions and its practical applications for managerial Decision making with special reference to pricing, make or buy decisions, selection of Sales-Mix.

Standard Costing: Introduction, Variance Analysis, types of Variances- Materials and Labour Variances. **Budgetary Control-** Types of Budgets Master budget Zero base budgeting, Fixed Budget and Flexible Budgets, Zero Base Budget, Participative Budget and Performance Budget.

Unit III

Financial Statement Analysis: Concepts and objectives, Tools of Financial Analysis: trend analysis, common size statements, comparative statements, Ratio analysis-Liquidity, solvency, profitability, turnover ratios, Cash flow statements and funds flow statements.

Unit IV

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Recent Developments in Accounting: Introduction to concept of Price Level Accounting, Human Resource Accounting, Transfer Pricing. Target Costing, Kaizen costing, Activity based costing, Life Cycle Costing.

Financial Reporting and Regulations: Meaning, objectives, principles and environment of financial reporting; Introduction to Accounting Standards issued by ICAI, US GAAPs, International Accounting Standards, IFRS, Applicability of various accounting standards, comparison and the process of harmonization.

Suggested Readings:

- Ahuja, N. L. and Dawar, V. 'Financial Accounting and Analysis' Taxmann Publishers
- Khan and Jain, 'Management Accounting', Tata McGraw.
- J. Madegowda, 'Accounting for Managers', Himalaya Publishing.
- 4. Horngren, Charles T., Gary L. Sundem and William O. Stratton, "Introduction to
- Management Accounting", Pearson Education Asia.
- Ramchandran, 'Financial Accounting for Management', Tata McGraw
- Jawahar Lal, 'Accounting for Management', Himalaya Publishing
- Pandey, I.M, "Essentials of Management Accounting", Vikas Publishing House.
- Sehgal, A. and Sehgal, D., 'Advanced Accounting Financial Accounting I, Taxmann **Publications**
- Shukla, M.C. and Grewal, T.S. Advanced Accounts Vol. I & Vol. II, S. Chand and Co.
- Horngren, C. T., Sundem, G. L. and Stratton, W. O., 'Introduction to Management Accounting', Pearson Education
- Elliott, B. and Elliott, J., 'Financial Accounting and Reporting', Pearson
- Gibson, C. H., 'Financial Reporting Analysis (Using Financial Accounting Information)', South-Western Publications
- Christopher, N. and Parker, R., 'Comparative International Accounting', Prentice Hall
- Bhattachrya, S.K. and John Dearden, "Accounting for Management Text and Cases", Vikas Publishing House.
- Arora, M.N., "Cost Accounting Principles and Practice", Vikas Publishing House.

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I.K.G. Punjab Technical University MBA Batch 2018 onwards MBA 105-18 PUSINESS ENVIRONEMENT AND INDIAN ECONO

BUSINESS ENVIRONEMENT AND INDIAN ECONOMY

Course Objective: This course aims at providing knowledge of the environment in which businesses operate, the economic, political, legal and social framework with a basic idea of the Indian Economy.

Course Outcomes: At the end of the course, student should be able to

CO 1: Outline how an entity operates in a complex business environment.

CO 2: To systematically learn impact of legal & regulatory, macroeconomic, cultural, political, technological, global and natural environment on Business enterprise.

CO 3: To examine the critical opportunities and threats that arise from an analysis of external business conditions by applying scenario planning to synthesize trends prevailing in the external environment.

CO 4: To describe how various types of economic systems play a significant role in the success of a business.

CO 5: To understand the nature of Indian Economy and various issues relating to Indian Economy having a direct or indirect impact on business environment.

CO6: To discuss various development strategies in India.

UNIT I

Business Environment: Meaning, Types: Internal Environment; External Environment; Micro and Macro Environment, Components of Business Environment. Political Environment: Three political institutions: Legislature, Executive and Judiciary, Fundamental rights, Directive Principles, Rationale and extent of state intervention. Economic Environment: Concept, features of various economic systems, New Industrial policy and industrial licensing, new economic policies, aspects of economic reforms and their effects on business and emerging economies. Effect of recession on Business and remedies for that, Economic Planning in India: Objectives, Strategies and Evaluation of current five year plan, Monetary and Fiscal Policy.

UNIT II

Legal Environment: Company Regulatory Legislations in India, FEMA, EXIM policy, Competition Law, Right to Information Act 2005.

Public Sector in India: Concepts, Philosophy and Objectives, Performance, Problems and Constraints. Disinvestment and Privatisation, Joint sector and Cooperative sector in India, Deficit Financing and its implications for the Indian Economy; Analysis of current year Annual Budget.



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Consumerism: Role of Consumer Groups with Special Reference to India; Consumer Protection Act, 1986 with Latest Amendments.

Ecological Environment: Concepts of Green Management, Global Warming, Carbon Foot Printing, The Environment Protection Act 1986.

UNIT III

Technological Environment: Impact of Technology on Business, Technological Policy, Intellectual Property Rights, Import of Technology, Appropriate Technology, Problems in Technology Transfer.

International Environment: Emergence of Globalisation, Control of Foreign Direct Investment, Benefits and Problems from MNCs. WTO, its role and functions, Implications for India. Trading Blocks, Foreign Trade: SEZ (Special Economic Zones), EPZ (Export processing zone), EOU (Export Oriented Units), Dumping and Anti-Dumping measures.

Introduction to Indian Economy: Colonialism and Development of Indian Economy, Framework of Indian Economy, Demographic Features and Indicators of Economic Growth and Development, Rural-Urban Migration and issues related to Urbanization, Poverty debate and Inequality, Nature, Policy and Implications.

Unit IV

Unemployment-Nature, Central and State Government's policies, policy implications, Employment trends in Organized and Unorganized Sector

Development Strategies in India: Agricultural- Pricing, Marketing and Financing of Primary Sector, Changing structure of India's Foreign Trade. The Economic Policy and Infrastructure Development: Energy and Transport, Social Infrastructure- Education, Health and Gender related issues, Social Inclusion, Issues and policies in Financing Infrastructure Development.

Suggested Readings:

- Paul Justin, Business Environment, Latest Edition, McGraw Hill Education, New Delhi.
- V.K. Puri & S.K. Misra, Economic Environment of Business, Latest Edition, Himalaya Publishing House, New Delhi.
- A.C. Fernando, Business Environment, Latest Edition, Pearson Publication, New Delhi.
- V. Neelamegam, Business Environment, Latest Edition, Vrinida Publications, Delhi.
- Francis Cherunilam, Business Environment, Latest Edition, Himalaya Publishing House, New Delhi.
- K. Aswathappa, Essentials of Business Environment, Latest Edition, Himalaya Publishing House, New Delhi.
- · Govt. of India, Five Years Plan Documents.

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Objective: This Paper introduces students to the relationship between business and ethics, and tries them to understand how ethical principles could influence management decisions. It also signifies the concept of CSR and its implications on business.

Course Outcomes: At the end of the course, the student will be able to:

CO1: To integrate and apply contemporary Ethics & Governance issues in a business context

CO2: To analyse and apply ethics to contemporary business practices.

CO3: To analyse key perspectives on corporate social responsibility and their application.

CO4: To evaluate different corporate ownership structures and their key governance features.

CO5: To understand the ethical decision making, ethical reasoning, the dilemma resolution process.

CO6: To analyse and apply corporate governance perspectives to contemporary business practices.

Unit I

Business Ethics: Characteristics, Principles, Types, Importance, Factors highlighting the importance of Business Ethics, Myths about Business Ethics. Ethical Values, Theories of Ethics, Absolutism verses Relativism, Teleological approach, the Deontological approach, Kohlberg's six stages of moral development (CMD), Code of Ethics.

Business Ethics and Social Responsibilities of the firm - relationship of the firms with customers, competitors, stockholders, dealers and suppliers. Ethics v/s Ethos, Indian v/s Western Management, Globalisation and Business Ethics. Emerging issues of Business Ethics.

Unit II

Ethical Dilemma; Characteristics, ethical decision making, ethical reasoning, the dilemma resolution process.

Ethical Considerations in Marketing, Ethics in Accounting and Finance, Ethical Implications at Top Level. Ethical considerations in Human Resource Management, Environmental Ethics.

Note: Relevant Case Studies regarding ethical issues in Marketing, HRM, Accounting and Finance and Environment Management should be discussed in the class.

Unit III

Corporate Social Responsibility: Concept, Definition, Need, Arguments in favour of and against CSR. Historical Phases of Corporate Social Responsibility, Perspectives of CSR. Models of CSR, Drivers of CSR, Corporate Governance, Business Ethics and CSR. Corporate Social Responsibility and Corporate Sustainability: Meaning, Need and importance of Sustainability, Sustainability Case, Studies-Triple Bottom Line (TBL).





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Corporate Sustainability Reporting Frameworks- Global Reporting Initiative Guidelines, National Voluntary Guidelines on Social, Environmental and Economic Responsibilities of Business.

Unit IV

Corporate Social Responsibility within the organisation, CSR and Society, Strategic Planning and CSR, Environmental Aspects of CSR, CSR under the Companies Act, 2013, CSR Practices in India, Case Studies of Major CSR Initiatives. Corporate Governance: Introduction, Need, Models.

References:

1.

- Fernando, A. C. (2010). Business Ethics and corporate governance. Pearson Education.
- Velasuez, M. G. (2011). Business Ethics: Concepts and Cases.. PHI Learning.
- Gosh, B. N. (2009). Business Ethics and Corporate Governance. Tata McGraw Hill. T
- Thomas M. Garrett Business Ethics The times of India Press Bombay.
- Peter Pratley The essence of Business Ethics prentice Hall of India (P) Ltd., New Delhi.
- Chackraborty S.K. Ethics in Management Vedantic Perspectives Oxford University Press, Delhi.

Keith Davis Business and Society Mc Graw Hill.

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I.K.G. Punjab Technical University MBA Batch 2018 onwards MBA 107-18

BUSINESS COMMUNICATION FOR MANAGERIAL EFFECTIVENESS

Objective: This course presents communication as integral to management and as a critical component for success in the workplace. The students will develop a foundation for designing effective messages, both written and oral, from concept to delivery. They will use various communication models to identify objectives, analyze audiences, choose information, and create the most effective arrangement and channel for that message. Particularly, the course emphasizes elements of persuasive communication: how to design messages for diverse and possibly resistant audiences and how to present that information in a credible and convincing way.

Specifically, students will practice drafting and editing clear, precise, and readable written business documents as well as learn to design documents to make information easily accessible to a busy, executive-level reader. In addition, they will develop and deliver an individual presentation, using appropriate and effective visual support, in which they will present a persuasive argument that demonstrates relevance and benefits to an audience at different levels of expertise or interest and will learn and practice group communication.

Course Outcome:

Course Outcomes: At the end of the course, the student will be able to:

CO1 - To understand the basics of communication and its process, and the various barriers in the communication.

CO2 – To learn the listening skills and comprehend the value of business etiquettes

CO3- To comprehend Non - Verbal communication skills and its application for effective Communication.

CO4 – To learn the skills of writing effective business messages, letters and reports

CO5- To develop the presentation skills and learning to organize and structure a Presentation using visual aids

CO6 – To prepare the students for interview, employment messages and resume writing skills

UNIT - 1

Understanding the Foundations of Business Communication: Business Communication concept, Communication Models, Communication Process, Characteristics of effective business communication, Barriers in communication environment, Communication and Ethics, Cross Cultural Communication;

Guidelines for successful collaborative writing, Social networking technologies in business communication, Importance of listening, business etiquette & nonverbal Communication

UNIT - II

I.K.G. Punjab Technical University MBA Batch 2018 onwards

The Three-Step Writing Process: Importance of analyzing the situation before writing a message, Information-gathering options, Information organization, Writing Business Communication: Adapting to your audience, Crafting brief messages, Crafting messages for electronic media, Writing routine and positive messages, Writing negative messages; Planning, Writing, and Completing Reports and Proposal and Emails.

UNIT - III

Designing and Delivering Oral and Online Presentations: Developing oral and online presentations, Enhancing presentations with slides and other visual aids, Just-A-Minute Presentation, Individual/Group Presentations, Feedback and overcoming Glossophobia, Group discussion.

UNIT - IV

Writing Employment Messages and Interviewing for Jobs: Employment strategy, Planning, writing and completing your resume, Applying and Interviewing for Employment: Understanding, preparing and follow-up, Role Play and Simulation games - Employer - employee and Interviewer - interviewee relationship.

Suggested Readings:

Penrose/Rasberry/Myers Business Communication for Managers (5th edition) Cengage Learning.

(13th Today edition) Communication Courtland/John/Roshan Business Pearson

Rizvi Effective Technical Communication Tata Mcgraw Hills

Business Communication Tata Mcgraw Hills Raymond/Marie/Kathryn/Neerja

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I.K.G. Punjab Technical University MBA Batch 2018 onwards

MBA 201-18

Business Analytics for Decision Making

Course Objective: The course aims at equipping students with an understanding of the research process, tools and techniques in order to facilitate managerial decision making.

Course Outcomes: At the end of the course, the student will be able to:

CO1: To have a deeper and rigorous understanding of fundamental concepts in business decision making under subjective conditions

CO2: To enhance knowledge in probability theory and normality and its distribution concepts

CO3: To conduct research surveys through multiple regression and multiple correlation

CO4: To design a good quantitative purpose statement and good quantitative research questions and hypotheses

CO5: To know the various types of quantitative sampling techniques and conditions to use.

CO6: To utilize the time series method to predict the future of sales in a concern.

Unit I

Introduction to Statistics: Meaning, Importance, Applications of inferential statistics in managerial decision making. Collection of Data: concept of primary data and secondary data, sources of primary data and secondary data, Classification and Tabulation of Data: Concept and types of classification, construction of frequency distributions, tabulation of data: role of tabulation, parts of table, rules of tabulation, review of table, types of table.

Sampling: Concept, definitions, census and sampling, probability and non probability methods of sampling, relationship between sample size and errors.

Unit II

Sampling Distributions: Concept and standard error.

Hypothesis Testing: Formulation of hypothesis, procedure of hypothesis testing, errors in testing of hypothesis, tests of significance for large samples, tests of significance for small samples, application of t-test, Z-test, F-test and Chi-square test and Goodness of fit, ANOVA.

Techniques of association of attributes.

Unit III

Business Forecasting: Introduction, Role of forecasting in business, Steps in forecasting and methods of forecasting.

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Correlation: Partial and Multiple correlation.

Regression Analysis: Multiple regression analysis, Testing the assumptions of regression: multicolinearity, heteroscedasticity and autocorrelation.

Unit IV

Index Number: Definition, importance of index number in managerial decision making, methods of construction, tests of consistency, base shifting, splicing and deflation, problems in construction.

Time Series Analysis: Meaning, component and, methods of time series analysis. Trend analysis: Least square method, linear and non linear equations, applications of time series in business decision making.

Suggested Readings:

- Levins, Krehbiel, Business Statistics, Pearson Berenson
- Levin & Rubin, Statistics for Management, Prentice Hall
- · S P Gupta, Statistical Methods, Sultan Chand
- Beri, Business Statistics, Tata Mc Graw Hill
- · Croucher, Statistics: Making Business Decisions, Tata McGraw Hill
- C.R. Reddy, Quantitative Techniques for Management Decisions, Himalaya Publishing
- Anderson Statistics for Business & Economics, Cengage Learning
- · Levin, Richard and David S. Rubin. "Statistics for Management". 7th Edition,
- · Prentice Hall of India, New Delhi.
- Render, B. and Stair, R. M. Jr., "Quantitative Analysis for Management", 7th Edition, Prentice-Hall of India, New Delhi.
- Siegel, Andrew F, *Practical Business Statistics*. International Edition, 5th Edition (2001), McGraw Hill Irwin.
- Berenson, L.M., Krehbiel, T.C., Vishwanathan, P.K. and Levine, D.M.,
 "Business Statistics: A First Course", 4th Edition (2008), Pearson Education.

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MBA 202-18 Legal Environment for Business

Course Objective: The objective of this paper is to give an exposure to students about important commercial, corporate and taxation laws, so that they are able to relate the impact of these legal enactments on business in an integrated manner.

Course Outcomes: Following are the expected outcomes of the course:

- 1. Students shall be able to understand the legal and regulatory framework of business environment.
- 2. Students shall be able to identify the fundamental legal principles behind contractual agreements.
- 3. Students shall be able to understand the legal provisions of sales of goods.
- 4. Students shall be able to understand the concept of negotiable instruments as well as rules pertaining to crossing, transferring and dishonouring of negotiable instruments.
- 5. Students shall have understanding of legal rules governing admission, retirement and death of partner and dissolution of partnership firm.
- 6. Students shall be able to understand the legal framework relating to the process of incorporation of Joint Stock Company

UNIT-I

Introduction to Business Laws:- Business Management and Jurisprudence; Structure of the Indian Legal Systems: sources of Law. Law of Contract: Definition, features of a valid contract, offer and Acceptance, Consideration, Capacity of parties, Free consent, Legality of Object, Performance and Discharge of Contract, breach of a contract and its remedies. Meaning and types of agents. Special Contracts-Laws of Agency; Principal-Agent Problem-Bailment, Pledge, Guarantee and Indemnity.

UNIT-II

Sales of Goods Act- Principles of Sales of Goods- Transfer of Ownership & Property-Performance of contract.

Unit III

Partnership Act: Introduction to Partnership Act, admission of partner, retirement and death of partner, dissolution of partnership firm.

Negotiable Instrument: Bills of Exchange, Promissory Note, Cheque and Rules Regarding the Crossing of Cheques, Dishonour of cheques and liability of banker and drawer.

UNIT-IV

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Company law: Definition and features of company; concept of corporate veil; distinction between company and partnership firm; type of companies, Process of formation and incorporation of Company, Memorandum of Association and Articles of Association, Definition, qualification, rights, duties and position of Directors, Constitution of Board of Directors, Chairman of Board, independent and executive directors, Introduction to meetings and resolution.

SUGGESTED READINGS:

1. Bansal, C. L. 'Business Laws' Taxmann Publishers (Edition-2011)

2. Kuchhal, M. C. and Kuchhal, Vivek-'Business Legislations for Management' Vikas Publications (4th Edition 2014).

3. Maheshwari, S.N. and Maheshwari, S.K.-A Manual of Business Laws- Himalya Publishing House Pvt. Ltd. (7th Edition-2018)

4. Singhania, V. and K., Singhania, K. and Singhania, M. 'Direct Taxes – Law & Practice', Taxmann's Publication, Pvt. Ltd.(60th Edition 2018-19)

 Swain, Dr. Anil Kumar and Agrawal, Mr. Gopal Prasad, GST Concepts and Applications, Himalya Publishing House Pvt. Ltd. (1st Edition-2018)

 Tulsian, P.C. and Tulsian, Bharat, Business Laws, McGraw Hills Education, (3rd Edition-2014)

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I.K.G. Punjab Technical University MBA Batch 2018 onwards MBA 203-18 Marketing Management

Course Objective: The course aims at making students understand concepts, philosophies, processes and techniques of managing the marketing operations of a firm in turbulent business environment. This course will provide better understanding of the complexities associated with marketing functions, strategies and provides students with the opportunity to apply the key concepts to practical business situations.

Course Outcomes: At the end of the course, the student will be able to:

CO1 - To learn the basics of marketing, selling, marketing mix and its core concepts.

CO2 – To understand the intricacies of the marketing environment and marketing information systems for effective marketing planning and strategies.

CO3- To equip the students with necessary skills for effective market segmentation, targeting and positioning

CO4 – To prepare the students for understanding the various components of product mix, product life cycle and comprehend the new product development process.

CO5- To develop an understanding of promotion mix and strategies for successful promotion

CO6 - To gain knowledge about the emerging trends in marketing and pyramid marketing.

Unit -I

Understanding Marketing and Consumers: Introduction to Marketing Management. Definition, Importance, Scope, Basic Marketing Concepts, Marketing Mix, Marketing vs Selling, Customer Value, techniques and relevance. Marketing Environment and Competition: Analyzing Marketing Environment-Micro, Macro, Impact of environment on marketing. Corporate Strategic Planning: Defining role of marketing strategies, marketing planning process. Marketing Information System: Concept and Components. Consumer Behaviour: Consumer buying process, Factors Influencing Consumer Buying Behaviour,

Unit -II

Market Segmentation & Targeting: Product differentiation, Positioning for competitive advantage, Product Decisions: Product Mix, Packaging and Labelling Decisions, Branding, Brand value & Brand Equity. New Product Development, Consumer Adoption Process, Product Life Cycle and marketing mix strategies. Services Marketing and 7Ps framework. Pricing Decisions: Objectives, Factors Affecting Pricing Decisions, Pricing Methods, Price Changes, Pricing Strategies.

Unit -III

Delivering and Promoting Product: Supply Chain Decisions Nature, Types, Channel Design and Channel Management Decisions, Retailing, Wholesaling, **Personal Selling**: Personal Selling Process, Managing the Sales Force. **Promotion Mix**: Advertising, Sales

I.K.G. Punjab Technical University MBA Batch 2018 onwards

Promotion, Public Relations. Emerging Trends in Marketing: Green Marketing, Event Marketing, Network Marketing, Social Marketing, Buzz Marketing/ Viral Marketing, Customer Relationship Management (CRM), Global Marketing, Rural Marketing, E-Commerce: Marketing In The Digital Age.

Unit -IV

Bottom of Pyramid Marketing: Understanding poverty and the Base of the Pyramid, understanding the BoP consumer: their basic needs wants and demands, Design-Develop-Distribute approach towards BoP. Consumption and marketing practices in BoP contexts: few challenges-The institutional context of BoP markets.-Conducting Marketing Research in BoP Markets-BoP Consumers and Producers-Producers and Entrepreneurs at the BoP. Concept of Informal Economy-Alternative Market initiatives at BoP-Ethical issues associated with BoP.

Suggested Readings:

- Kotler & Koshy, Marketing Management, Pearsons Education
- · Ramaswamy & Namakumari, Marketing Management, McMillian.
- McMEtzel, Walker, Stanton, and Pandit, Marketing Management, Tata McGraw Hill
- · Kurtz & Boone, Principles of Marketing, Cengage Learning
- Kotler & Armstrong, Principles of Marketing, Prentice Hall
- Biplab S. Bose, Marketing Management, Himalaya Publications
- · Subhash c. Jain, Marketing Management, Cengage Learning

• Rajan Saxena., Marketing Management, Tata McGraw Hill.

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MBA 204-18

Human Resource Management

Course Objective: The objective of the paper is to make student aware of the various functions and importance of HR department in any organization. It is basically concerned with managing the human resources, whereby the underlying objective is to attract retain and motivate the human resources in any organization.

Course Outcomes: At the end of the course, the student will be able to:

CO1- To explain the basics of Human Resource Management and analyse the evolution of HRM.

CO2- To comprehend the environment of HRM.

CO3: To appraise various functions of HRM that facilitate employee hiring viz. human resource planning, job analysis recruitment and selection.

CO4: To understand the role of training, development, career planning and performance appraisal functions in human resource development.

CO5: To examine the provisions of employee health, safety and welfare.

CO6: To analyse the concerns of government, employees and employers in establishing Industrial relations.

CO7: To illustrate mechanisms adopted by the organizations for settlement of disputes and grievances

Unit I

Human Resource Management (HRM): Nature, Scope, Objectives and functions of HRM. Evolution of HRM, HR as a factor of competitive advantage. Organization of HR department, Line ad staff responsibility of HR managers, competencies of HR Manager. Personnel Policies and Principles. Strategic HRM: Introduction, Integrating HR strategy with Business Strategy, Difference between SHRM and HRM. HRM Environment and Environment Scanning. Human Resource Planning: Meaning, Process and importance, factors affecting Human Resource Planning. Job Analysis: Process, methods of Job Description & Job Specification.

Unit 2

Recruitment & Selection: Meaning & Concept, Process & Methods Recruitment & Selection, Induction & Placement. Training & Development: Meaning & Concept of Training & Development, Methods of Training & Development, Evaluating training effectiveness. HRM vs. HRD. Career Planning & Development: concept of career, career planning, career development, process of career planning and development, factors affecting career choices, responsibilities of Employers / managers, organization and employees in career planning and development, career counseling. Internal Mobility: Promotion, Transfer, Demotion, Separation, downsizing and outplacement.

Unit 3

Performance Appraisal: Meaning & Concept of Performance Appraisal, Methods & Process of Performance Appraisal, Issues in Performance Appraisal, Potential Appraisal. Compensation Management- Concept and elements of compensation, Job evaluation, Wage / Salary fixation, Incentives Plans & Fringe Benefits Quality of work life (QWL): Meaning, Concept, Techniques to improve QWL. Health, Safety & Employee

I.K.G. Punjab Technical University MBA Batch 2018 onwards

Welfare, Social Security. Quality Circles: Concept, Structure, Role of Management, QCs in India.

Unit 4

Industrial Relations: Government's concerns, Union's concerns, Management concerns; Approaches of IR; Dispute Resolution Machinery. Collective Bargaining: Meaning, Scope, Objectives, Issues and Strategies, steps of collective bargaining, negotiation skills. Participative Management, Grievance Handling, Disciplining and Counseling of employees, HRIS, HR Audit. Ethical Issues in HRM. Human Resource Management practices in India.

Suggested Readings:

- Dessler, Gary, "Human Resource Management", New Delhi, Pearson Education Asia. 2017 15th Edition
- Aswathappa, K.. Human Resource Management, Text and Cases (7th ed.). Mc Graw Hill.
- Flippo, E. Human Resource Management (5th ed.). McGraw Hill.

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- Ivancevich, J. Human Resource Management (12th ed.). Tata Mc Graw Hill.
- Gomez Mejia, L. Managing Human Resources (8th ed.). Pearson Education.
- Bratton, J. and Gold, J. Human Resource Management: Theory and Practice (6th ed.). Palgrave.
- Mirza S. Saiyadain. Human Resources Management (4th ed.). Tata McGraw Hill.

• Dale Yoder, Personal Management & Industrial Relations, Tata McGraw Hill

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MBA 205-18

Production & Operations Management

Course Objective: It is a subject where a student learns various steps of product design, development, production, plant location, storage, production planning and control. The students are motivated to apply concepts and principles of management to become more effective professional

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1: Understand ever growing importance of Production and Operations management in uncertain business environment.

CO2: Gain an in-depth understanding of resource utilization of an organization.

CO3: Appreciate the unique challenges faced by firms in services and manufacturing.

CO4: Understand the subject as a crucial part of functional management.

CO5: Develop skills to operate competitively in the current business scenario.

CO6: Understand the concepts of inventory and purchasing management.

Unit-I

Operations management: concept, functions, transformation process model: inputs, process and outputs; classification of operations; responsibilities of operations manager, contribution of Henryford, Deming, Crossby, Taguchi.

Facility Location – importance, factors in location analysis, location analysis techniques. Product Design and Development – product design and its characteristics, product development process (technical), product development techniques. Process selection- project, job, batch, mass and process types of production systems. operations management in corporate profitability and competitiveness

Unit- II

Facility Layout – Objectives, Advantages, Basic Types of Layouts, Problems in facility layout. Production Planning & Control (PPC): –Concepts, Objectives, and Functions, work study – Productivity: Method study; Work measurement. Capacity Planning – Concepts, Factors affecting Capacity Planning, Capacity Planning Decisions.

Unit- III

Quality Management: Introduction, Meaning, Quality Characteristics of Goods and Services, Juran's Quality Trilogy, Deming's 14 principles, Tools and Techniques for Quality Improvement, Statistical Process Control Chart, Quality Assurance, Total Quality Management (TQM) Model Concept of Six Sigma and its Application.

Acceptance Sampling – Meaning, Objectives, Single Sample, Double Sample and Multiple Sample Plans with sated risk, Control charts for variables – Averages and Ranges, Control Charts for Defectives – Fraction Defective and Numbers Defective.

Unit- IV

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JIT and Lean Production System: JIT Approach, Implementation requirements, Services, Kanban System. Inventory Management: Concepts, Classification, Objectives, Factors affecting Inventory Control Policy, Inventory Costs, Basic EOQ Model, Re-order level, ABC analysis. Logistics and Franchising. Purchasing Management – Objectives, Functions, Methods, Procedure.

Value Analysis: Concepts, Stock Control Systems, Virtual Factory Concept and Production Worksheets.

Note: Relevant Case Studies should be discussed in class.

Suggested Readings / Books:

- Mahadevan B, Operations Management: Theory and Practice (2nd Ed.).
 Pearson Education
- Krajewski & Ritzman, Operations Management (5th Ed.) Pearson Education
- Buffa & Sarin, Modern Production/Operations Management, (8th Ed.) John Wiley
- Chary, Production and Operations Management, Tata McGraw-Hill
- Johnston R et al , Cases in Operations Management, Pitman
- · McGregor D, Operations Management, McGraw-Hill
- Nair, Production & Operations Management. Tata McGraw

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MBA 206-18

Corporate Finance and Indian Financial System

Course Objective: To provide an in-depth understanding of the core finance functions and decisions in the area of corporate financial management. Further provide a practical and problem insight for effective financial decision-making.

Course Outcomes: After completing the course, the students shall be able to:

CO1- To explain the evolution, objectives and functions of corporate finance and interface of corporate finance with other functional areas.

CO2- To illustrate the concept of time values of money and valuation of securities.

CO3: To comprehend the significance of capital structure theories in capital structure decisions.

CO4: To understand the applications of approaches of working capital management.

CO5: To be able to describe the role of various financial institutions on Indian financial system.

CO6: To discuss the evolution of financial markets and various financial instruments.

Unit-I

Introduction to Financial Management and Corporate Finance: Meaning, nature, evolution, objectives, functions and scope of corporate finance. Interface of financial management with other functional areas, environment of corporate finance, functions and role of financial manager.

Time Value of Money-Introduction, types of cash flows, future value of single cash flow, multiple flows and Annuity.

Valuation of Securities: Concept of Valuation, Methods for valuation of equity, debt and hybrid securities.

Unit-II

Capital Structure Decision-Capital Structure Theories: Meaning and features of capital structure decision, Net Income Approach, Net Operating Income Approach, Traditional Approach, Modigliani-Miller Hypotheses with special reference to the process of arbitrage and Agency Cost.

Capital Budgeting Decision: Nature of investment decisions; process of capital budgeting, investment evaluation criteria: Discounted and Non-Discounted Methods (Pay-Back Period, Average rate of return, Net Present Value, Benefit Cost Ratio and Internal Rate of Return). Risk analysis in capital budgeting and Capital rationing.

Unit-III

Dividend Decision-: Issues in dividend decisions. forms of dividend, theories of relevance and irrelevance of dividends.

Management of Working Capital: Meaning, nature, objectives and Approaches of Working Capital (Conservative, Matching and Aggressive approaches), Static vs. Dynamic View of Working Capital. Factors determining the amount and composition of Working Capital Methods for financing of working capital.

Unit-IV

Introduction to Financial System: Overview, evolution of Indian financial system. Structure and functions of Indian financial system. Financial sector reforms-major reforms in the last decade. Financial Institutions: Introduction to Reserve Bank of India, Securities and Exchange Board of India, Insurance Regulatory and Development

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Authority of India, Introduction to commercial banks, co-operative banks, NBFCs, insurance companies, mutual funds, stock exchanges, commodity exchanges, and Depositories.

Financial Markets: Introduction, evolution, capital market and money market, functions and operations of primary market and secondary market. **Financial Instruments**: Shares, Debentures, Bonds, Money Market Instruments, Derivatives, Global Depository Receipts, Foreign Currency Convertible Bonds

Suggested Readings:

- 1. Pandey, I. M. (2015). Financial Management, 11th Edition. Vikas Publishing House.
- Khan, MY. and Jain, PK. (2014). Financial Management, 7th Edition. Tata McGraw Hill, New Delhi.
- 3. Chandra, Prasanna. (2015). Financial Management: Theory and Practice, 9th Edition. Tata McGraw Hill, Delhi.
- 4. Van Horne. J.C. and J.M. Wachowicz. (2015). Fundamentals of Financial Management, 13th Edition. Prentice Hall, Delhi.
- Brealey, Richard A; Stewart, C. Myers and Allen, F. (2017). Principles of Corporate Finance, 11th Edition. McGraw Hill, New York.
- Bhole, L. M. (2017). Financial Institutions and Markets, 6th Edition. McGraw Hill.
- 7. Srivastava, R. M and Divya, N. (2014). Management of Indian Financial Institutions, 9th Edition. Himalaya Publishing House.

8. Varshney, P. N. and Mittal, DK. (2010). Indian Financial System, 11th Edition. Sultan Chand & Sons.



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MBA 207-18

Entrepreneurship Development and Project Management

Course Objective: To provide a comprehensive understanding of the concept of an Entrepreneur and intricacies involved in managing entrepreneurial projects. The prime aim is to imbibe the necessary entrepreneurial competencies among students and motivate them choose Entrepreneurship as a feasible and desirable career option.

Course Outcomes: After completing the course, the students shall be able to:

CO1- To explain the characteristics, functions and traits of an entrepreneur.

CO2- To illustrate the concept of corporate entrepreneurship and development of the same in the organizations.

CO3: To comprehend the significance of women entrepreneurs, rural entrepreneurship and social entrepreneurship.

CO4: To examine entrepreneurial strategies to explore new entry opportunities, methods of enhancing creativity and generation of ideas.

CO5: To be able to develop an effective business plan.

CO6: To explain the basic concepts of project management and analyse different phases of project management viz. generation and screening of project ideas, project analysis, selection, financing, implantation and review.

Unit I

Introduction to Entrepreneur: Concept, Characteristics, functions of an entrepreneur, Entrepreneur Vs Manager, Types of entrepreneur, Entrepreneurial Mind Set, Key attributes of an entrepreneur, desirable and acquirable traits and behaviours, Readiness of the entrepreneur: Right age, right time and right conditions, Myths and Realities of entrepreneurship. Entrepreneurship and Intrapreneurship: Similarities and variance, Developing Corporate Entrepreneurship.

Women entrepreneurs:-Meaning, role, problems for women entrepreneurs, Rural entrepreneurship, social entrepreneurship, Entrepreneurship Development, Entrepreneurial support systems and role of government in Entrepreneurship Development..

Unit II

Entrepreneurial Motivation: Concept and Theories, Entrepreneurial Strategy: Generating and Exploiting New Entry Opportunities, Generation of new Entry Opportunity, entry Strategy, Risk reduction strategies for New Entry Exploitation Creativity and Business Idea Generation: Concept of creativity, ideas from trend analysis, sources of new ideas, Methods of generating new ideas, Creative problem solving, creativity and entrepreneurship. Entrepreneurial Innovation: Concept and types, Opportunity Recognition and opportunity assessment plan, product planning and development process..

Unit III

Protecting Ideas and Legal issues for the entrepreneur. Concept of IPR, Patents, Trademarks, Copyrights, Licensing, Product Safety, Other Legal Issues in Setting Up An Organisation. Business Plan Creating and Starting the Venture: Concept of Business Plan, Scope and Value, Writing the business plan, Using and implementing business plan. Succession Planning and Strategies for Harvesting and Ending Venture: Exit Strategy, succession of Business, Selling off, bankruptcy

I.K.G. Punjab Technical University MBA Batch 2018 onwards

Reasons of failure of business plan, Reasons for the failure of entrepreneurial ventures.

Unit IV

Project Management: Concept, facets and Key Issues of project management. Generation and screening of project ideas, Project Analysis: Market and demand analysis, Technical analysis, Financial estimates and projection, Project Selection: Investment criteria, Risk analysis, Social Cost Benefit analysis.

Project Financing: Financing of projects, Concept of Venture Capital in detail, Difference between Venture Capital and Private Equity. **Project Implementation:** Project planning and control, Network techniques for project management: PERT and CPM Models, **Project Review:** Post Audit and Administrative Aspects.

Relevant case studies related to the topics should be discussed.

Suggested readings:

- Chandra, P. (2017). *Projects: Preparation, Appraisal, Budgeting and Implementation*. New Delhi: 8th Edition, Tata Mcgraw.
- Desai, V. (2017). Project Management and Entreprenueurship. New Delhi: 2nd Edition, Himalaya Publishing House.
- Fyffe, D. S. (2001). Project Feasibility Analysis. New York: John Wiley and Sns.
- Hisrich, R. D, Peters, M.P, and Shephers, D.A.(2016). *Entrepreneurship*. New Delhi: 10th Edition, Tata mc graw.
- Mohanty, Sangram Keshari (2017). Fundamentals of Entrepreneurship, Revised Edition, PHI Learning Pvt Ltd.

• Natrajan, K. and Gordon, E. (2017). *Entreprenuership Development*. New Delhi: 6th Edition, Himalaya Publishing House.

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MBAGE 201-18

Computer Applications for Business

Course Objective: The purpose of this course is to provide a through exposure to the operating and office management tools available in different packages. A student can be exposed to the working knowledge of Windows based operating systems and software packages such as Windows-95, 98, 2000-Professional, windows -XP and MS -Office.

Course Outcomes: After completing the course, the students shall be able to:

CO1: Develop understanding of computer fundamentals, functions and their classifications

CO2: Develop a clear understanding and knowledge about the functioning of a Computer software and window operating system

CO3: Demonstrate proficiency in Microsoft word & Excel.

CO4: Apply formatting and editing features to enhance worksheets.

CO5: Use styles, themes, and conditional formats to customize worksheets.

CO6: apply the concepts of data base and Access for editing Data; managing reports and labels, Managing Multiple Tables.

Unit I

Introduction to Computer: Definition of Computer, Features of Modern Computer, Classification of Computer on the Basis of Generation.

Components of Computer: Input Unit, Output unit, Central Processing Unit Various Input Devices and Output Devices, Internal and External Memory Storage, RAM, ROM, PROM, EPROM, Hard Disc, Magnetic Tapes

Unit II

Operating System: Concepts, Definition of Operating System (as Resource Manager, Processor Manager and Information Manager)

Window: Introduction to Window (Working of Windows, Manipulation of Icon, Menus and opening different applications simultaneously), Various Versions of Windows, Basic commands of windows (Creating, Moving, Renaming, Deleting Files/Folders). MS-Office: Introduction, Components of Office.

Unit III

MS-Word: History, Creating, Saving, Opening, Importing, Exporting and Inserting document, Formatting pages, Alignment, Paragraphs and Sections.

Indents and Outdents, creating lists and numberings Formatting Commands: Headings, Styles, Fonts and Size editing, Viewing Text, Finding and Replacing text, Headers and Footers, Inserting page breaks, Page numbers, Special Symbols and Dates Mail merge, Preview and Printings command.

MS-PowerPoint: History, Creating, Saving, Opening, existing presentation, Creating and Saving a Presentation using Auto Content Wizard, Design Template, Blank

I.K.G. Punjab Technical University MBA Batch 2018 onwards

Presentation the Slide Sorter View, Slide Show, Inserting pictures and graphics and Printing Slides.

Unit IV

MS-Excel: Introduction, Components of Excel History, Creating, Saving, Opening, Spreadsheet, Formatting numbers and Text, Graph and Chart Formatting Commands, Menu Bar, Toolbars, Producing Charges, Protecting Cell Macro and Printing Operation, Spell Checking, Cell Editing, Calculation of various Financial and Statistical Functions using Formulas.

MS Access: Introduction to Data Base and Access: Viewing and Editing Data; Sorting and Indexing Printing Reports and Labels, Managing Multiple Tables. Forms, Queries, Reports.

Suggested Readings:

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- Ram, B.(2018). Computer Fundamentals Architecture and Organization. New Delhi: Age Publications
- Sinha, P.K. and Sinha, P. (2017). Foundation of computing. New Delhi: BPB Publications.
- Arora, A.(2015) Computer fundamentals and applications. Vikas Publishing.
- Rajaraman, V.(2014). Fundamentals of Computers. Delhi: Prentice-Hall.
- Roger, J. (2010). Microsoft Access 2010. Delhi: Pearson Education.
- Forouzan, (2009). Basics of Computer Science. India: Cengage Learning
- Levi, D.S., Kaminsky, P. (2007) Designing and Managing the Supply Chain. McGraw Hill
- Turban, E., Aronson JE., Liang, TP. (2005). Decision Support Systems and Intelligent Systems (7th Edition). Pearson Publishers.

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MBA 301-18 Organizational Behaviour & Design

Course Objective: The course aims to provide an understanding of basic concepts, theories and techniques in the field of human behaviour at the individual, group and organizational levels in the changing global scenario at workplace.

Course Outcomes: Upon completion of this course, students will be able to:

CO1- To explain the basics of Organizational behaviour and various challenges for OB in national and global environment.

CO2- To illustrate the foundations of Individual Behaviour and analyse the influence of individual level factors viz. learning, personality, perception, attitude and motivation on behaviour in organizations.

CO3: To assess the significance of leadership and role of leadership styles in effectiveness of the team. **CO4:** To examine the dynamics of group development, group properties and formation of organizational culture.

CO5: To demonstrate dimensions of organisational design and types of organisational structure and to analyse the influence of environment on organisational design.

CO6: To interpret the effect of political climate (conflict, power and politics) on human behaviour.

Unit 1

Organisational Behaviour: Meaning, foundations, contributing disciplines to OB, Challenges and opportunities for OB.

Individual Behaviour: Foundations of individual behaviour, Determinants of individual behaviour.

Learning and Reinforcement: Theories of learning, Schedules of reinforcement, Behaviour modification.

Emotions and Moods: Types and sources of emotions, emotional intelligence, managing emotions at work place.

Unit 2

Personality: Determinants of personality, The Myers-Briggs Type Indicator model of personality, The Big five model of personality, traits of personality.

Attitudes & Values: sources and types of attitude, cognitive dissonance theory, Types of attitudes at work place, attitude change.

Perception: factors influencing perception, process of perception, attribution theory of perception, perceptual distortions and improving perceptions.

Motivation: early and contemporary theories of motivation, application of motivation process. **Leadership:** nature and significance of leadership, theories of leadership, behavioural styles of leaderships, leadership traits, transactional leadership, concept of charisma leaders.

Unit 3

Transactional analysis: Ego states, life positions, Johari window model.

Foundations of Group Behaviour: Nature and concept of group, Group formation, stages of group formation, theories of group formation, Types of teams, issues in team management.

Group Properties: Roles, norms, status, size, cohesiveness and decisions making in groups.

Stress management: sources of stress, approaches for stress management.

Organizational culture: meaning, concept and dimensions of organizational culture, developing organizational culture, cultural differences.

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Unit 4

Understanding Organisations: Meaning and importance of organisations, Organisational theory, Organizational life cycle. Organization and environment: General vs specific environment, actual vs perceived environment, environmental uncertainty. Organisational Design: Meaning, factors influencing organisational design: organizational strategy, size, technology, environment. Dimensions of Organizational design: Complexity, formalization, centralization. Common organizational designs: Traditional designs and contemporary designs. Organisational structure: Meaning and Types of organisational structures.

Conflict Management: Meaning, types and sources of conflict, Process of conflict management, approaches to conflict management. Learning Organizations: Meaning of learning organisations, creating learning organisations.

Power and politics in organizations: Nature & concepts, sources and types of power, tactics and techniques of politics.

Suggested Readings /Books:

- Robbins, Organization Behaviour, Pearson Education
- Luthans , Organization Behaviour, Tata McGraw Hill
- Newstrom, Organizational Behaviour: Human Behaviour at work, Tata McGraw Hill
- Kalliath, Organization Behaviour, The McGraw -Hill
- · Griffin& Moorhead, Introduction to Organisational Behaviour, Cengage Learning
- Hersey, Management of Organizational Behaviour, Prentice Hall India
- Parikh, Gupta, Organisational Behaviour, Tata McGraw Hill
- · Aswathappa, Organization Behaviour, Himalaya Publications
- Locum, Fundamentals of Organisational Behaviour, Cengage Learning.
- · Saiyadain, M.S.: Organization Behaviour, Tata McGraw Hill
- · Steven L. McShane, Mary Ann Von Glinow, Radha R Sharma, Organisational Behaviour, New Delhi, Tata McGraw Hill, 2007.
- Udai Pareek, Understanding Organizational Behaviour, New Delhi, Oxford University Press, 2007.
- P.G Aquinas, Organization Structure and Design- Applications and Challenges, New Delhi, Excel Books, 2010.
- Stephen, P. Robbins and Mary Mathew, Organizational Theory-Structure, Design and Applications, New Delhi, Pearson Education, 2009.

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MBA 302-18 Marketing Research

Objective: The course aims to provide an understanding of basic concepts, theories and statistical techniques used in research. Students will also be given exposure to use and apply SPSS.

Course Outcomes: Upon completion of this course, students will be able to:

CO1: Understand the process of marketing research and its application in managerial decision making

CO2: Identify various sources of data for marketing research.

CO3: Examine different research methods and be able to apply them.

CO4: Identify different research designs and develop a research proposal.

CO5: Design an effective questionnaire and test reliability and validity of the scales.

CO6: Apply different methods of data preparation and data analysis.

Unit I

Marketing Research: Definition, Nature and Scope for marketing decision making. Marketing Research Process. Types of Research - Descriptive research, Exploratory Research and Causal Research.

Sources of Data: Commercial (Syndicated) and Non-commercial Sources of Secondary Data for Marketing Research.

Unit II

Casual Research Designs: Basic designs – After-only design, Before-After design, After only with control group design, Before-After with control group design, Time Series Design Latin Square Design, Factorial Design, Ex-Post Facto Design, Completely Randomized Design, Randomized Block Design.

Observation Research: Direct Observation, Indirect Observation, Observational Variables. Developing Research Proposal: purpose, nature and evaluation, content and format.

Unit III

Questionnaire Design: Principles of Writing Questionnaire.

Reliability and Validity: Basic concepts; True Score Model; Measurement Errors in Marketing; Scales of Measurement - Nominal, Ordinal, Interval and Ratio; Coefficient Alpha and Internal Consistency; Types of Reliability - Test-retest Reliability, Alternative Forms and Split-Half Reliability; Types of Validity - Content, Criterion, Concurrent, Predictive Convergent, Construct, Discriminant and Nomological Validity; Concept of Generalizability.

Unit IV

Data Preparation: Understanding SPSS, Creating SPSS Sheet; Entry of Data in SPSS; Basic computations of Descriptive Statistics.

Basic Data Analytic Techniques: Assessing Reliability; Computing Coefficient Alpha Scale Refinement and Item Analysis.

Advanced Data Analytic Techniques: Correlation Analysis, Factor Analysis, Regression Analysis.

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Suggested Readings:

1. Malhotra N.K., Marketing Research, Pearson Education, New Delhi, 2012.

2. D R. Cooper, &P.S, Schindler, Business Research Methods, Tata McGraw Hill.

3. Thomas C. Kinnear and James R. Taylor, Marketing Research-An Applied Approach, McGraw Hill

4. Paul, E. Green and Donald, S. Tull, Research for Marketing Decisions, Prentice Hall of India Pvt. Ltd., Delhi.

 Harper, W. Boyd, (Jr.), Ralph Westfall and Tandoy, F. Stasch, Marketing Research, All India Travelers Bookseller, Delhi, 2002.

6. Ramanuj Majumdar Marketing Research, Wiley Eastern Ltd., New Delhi, 1991.

7. David J. Luck and Ronald S. Rubin, Marketing Research, Prentice Hall of India, 1990.

8. Nargundkar R, Marketing Research, Tata McGraw Hill, New Delhi, 2002.

9. Churchill & Israel, Marketing Research, Cengage Learning

10. Zikmund, Essentials of Marketing Research, Cengage Learning.

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HVPE 101-18 HUMAN VALUES, DE-ADDICTION AND TRAFFIC RULES

Course Objective: This introductory course input is intended

a. To help the students appreciate the essential complementarily between 'VALUES' and 'SKILLS' to ensure sustained happiness and prosperity which are the core aspirations of all human beings.

b. To facilitate the development of a Holistic perspective among students towards life, profession and happiness, based on a correct understanding of the Human reality and the rest of Existence. Such a holistic perspective forms the basis of Value based living in a natural way.

c. To highlight plausible implications of such a Holistic understanding in terms of ethical human conduct, trustful and mutually satisfying human behavior and

mutually enriching interaction with Nature.

Thus, this course is intended to provide a much needed orientational input in Value Education to the young enquiring minds.

Course Methodology

The methodology of this course is universally adaptable, involving a systematic and rational study of the human being vis-à-vis the rest of existence.

It is free from any dogma or value prescriptions.

It is a process of self-investigation and self-exploration, and not of giving sermons. Whatever is found as truth or reality is stated as proposal and the students are facilitated to verify it in their own right based on their Natural Acceptance and Experiential Validation.

This process of self-exploration takes the form of a dialogue between the teacher and the students to begin with, and within the student himself/herself finally.

This self-exploration also enables them to evaluate their pre-conditionings and present beliefs.

Content for Lectures:

Module 1: Course Introduction - Need, Basic Guidelines, Content and Process for Value Education [6]

- 1. Understanding the need, basic guidelines, content and process for Value Education
- 2. Self Exploration-what is it? its content and process; 'Natural Acceptance' and Experiential Validation- as the mechanism for self exploration

3. Continuous Happiness and Prosperity- A look at basic Human Aspirations

4. Right understanding, Relationship and Physical Facilities- the basic requirements for fulfillment of aspirations of every human being with their correct priority

5. Understanding Happiness and Prosperity correctly- A critical appraisal of the current scenario

6. Method to fulfill the above human aspirations: understanding and living in harmony at various levels

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Module 2: Understanding Harmony in the Human Being - Harmony in Myself! [6]

 Understanding human being as a co-existence of the sentient 'I' and the material 'Body'

8. Understanding the needs of Self ('1') and 'Body' - Sukh and Suvidha

Understanding the Body as an instrument of 'I' (I being the doer, seer and enjoyer)

10. Understanding the characteristics and activities of 'I' and harmony in 'I'

11. Understanding the harmony of I with the Body: Sanyam and Swasthya; correct appraisal of Physical needs, meaning of Prosperity in detail

12. Programs to ensure Sanyam and Swasthya

- Practice Exercises and Case Studies will be taken up in Practice Sessions.

Module 3: Understanding Harmony in the Family and Society- Harmony in Human-Human Relationship

[6]

- 13. Understanding harmony in the Family- the basic unit of human interaction
- 14. Understanding values in human-human relationship; meaning of *Nyaya* and program for its fulfillment to ensure *Ubhay-tripti*;

 Trust (*Vishwas*) and Respect (*Samman*) as the foundational values of relationship
- 15. Understanding the meaning of Vishwas; Difference between intention and competence
- 16. Understanding the meaning of *Samman*, Difference between respect and differentiation; the other salient values in relationship
- 17. Understanding the harmony in the society (society being an extension of family): Samadhan, Samridhi, Abhay, Sah-astitva as comprehensive Human Goals
- 18. Visualizing a universal harmonious order in society- Undivided Society (Akhand Samaj), Universal Order (Sarvabhaum Vyawastha) from family to world family!
 - Practice Exercises and Case Studies will be taken up in Practice Sessions.

Module 4: Understanding Harmony in the Nature and Existence - Whole existence as Co-existence

[4]

- 19. Understanding the harmony in the Nature
- 20. Interconnectedness and mutual fulfillment among the four orders of naturerecyclability and self-regulation in nature
- 21. Understanding Existence as Co-existence (Sah-astitva) of mutually interacting units in all-pervasive space

22. Holistic perception of harmony at all levels of existence

- Practice Exercises and Case Studies will be taken up in Practice Sessions.

Module 5: Implications of the above Holistic Understanding of Harmony on Professional Ethics [6]

23. Natural acceptance of human values

24. Definitiveness of Ethical Human Conduct

25. Basis for Humanistic Education, Humanistic Constitution and Humanistic Universal Order

26. Competence in professional ethics:

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- a) Ability to utilize the professional competence for augmenting universal human order,
- b) Ability to identify the scope and characteristics of people-friendly and eco-friendly production systems,
- c) Ability to identify and develop appropriate technologies and management patterns for above production systems.
- 27. Case studies of typical holistic technologies, management models and production systems
- 28. Strategy for transition from the present state to Universal Human Order:
 - a) At the level of individual: as socially and ecologically responsible engineers, technologists and managers
 - b) At the level of society: as mutually enriching institutions and organizations

Text Book

R R Gaur, R Sangal, G P Bagaria, 2009, A Foundation Course in Value Education. Reference Books

- 1. Ivan Illich, 1974, Energy & Equity, The Trinity Press, Worcester, and HarperCollins, USA
- 2. E.F. Schumacher, 1973, Small is Beautiful: a study of economics as if people mattered, Blond & Briggs, Britain.
- 3. A Nagraj, 1998, Jeevan Vidya ek Parichay, Divya Path Sansthan, Amarkantak.
- 4. Sussan George, 1976, How the Other Half Dies, Penguin Press. Reprinted 1986, 1991
- 5. PL Dhar, RR Gaur, 1990, Science and Humanism, Commonwealth Purblishers.
- 6. A.N. Tripathy, 2003, Human Values, New Age International Publishers.
- 7. Subhas Palekar, 2000, *How to practice Natural Farming*, Pracheen(Vaidik) Krishi Tantra Shodh, Amravati.
- 8. Donella H. Meadows, Dennis L. Meadows, Jorgen Randers, William W. Behrens III, 1972, *Limits to Growth Club of Rome's report*, Universe Books.
- 9. E G Seebauer & Robert L. Berry, 2000, Fundamentals of Ethics for Scientists & Engineers, Oxford University Press
- 10. M Govindrajran, S Natrajan & V.S. Senthil Kumar, *Engineering Ethics (including Human Values)*, Eastern Economy Edition, Prentice Hall of India Ltd.
- 11. B P Banerjee, 2005, Foundations of Ethics and Management, Excel Books.
- 12. B L Bajpai, 2004, *Indian Ethos and Modern Management*, New Royal Book Co., Lucknow. Reprinted 2008.

Relevant CDs. Movies, Documentaries & Other Literature:

- 1. Value Education website, http://uhv.ac.in
- 2. Story of Stuff, http://www.storyofstuff.com
- 3. Al Gore, An Inconvenient Truth, Paramount Classics, USA
- 4. Charlie Chaplin, Modern Times, United Artists, USA
- 5. IIT Delhi, Modern Technology the Untold Story

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HVPE 102-18 Human Values, De-addiction and Traffic Rules (Lab/Seminar)

One each seminar will be organized on Drug De-addiction and Traffic Rules. Eminent scholar and experts of the subject will be called for the Seminar atleast once during the semester. It will be binding for all the students to attend the seminar.

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MBA 921-18

Consumer Behaviour

Course Objective: The objective of this course is to help students understanding various factors affecting consumer behavior and to understand the process of consumer buying. Based on the understanding of consumer behavior, the students are expected to design the strategy.

Course Outcomes: Upon completion of this course, students will be able to:

CO1: Provide an understanding of how consumers make decisions.

CO2: Analyze personal and environmental factors that influence consumer decisions.

CO3: Understand the processes used when individuals, group or organizations make buying decisions.

CO4: Understand how and why marketers craft particular messages to appeal to consumers.

CO5: Understand the interrelationship with other functional areas of business as a part of the management process.

CO6: Assess the process of opinion leadership and its relationship with firm's promotional strategy.

UNIT-I

Introduction to Consumer Behaviour

Consumer Behaviour: Scope, importance and interdisciplinary nature. Consumer Research Process: Qualitative and Quantitative research. Market Segmentation: Uses and bases of segmentation. Emerging trends in consumer behavior: Consumer behavior in online space. Use of Information technology and AI in consumer profiling and engagement, concept of materialistic vs spiritualistic consumption.

UNIT-II

Individual Determinants of Consumer Behaviour

Motivation: Nature and Types of Motives, Process of motivation, types of Needs. Personality: Theories, Product Personality, Self Concepts. Consumer Perception: Concept and Elements of Perception, Consumer Imagery, Perceived Risk. Consumer Learning: Behavioural and Cognitive Learning Theories. Consumer Attitude: Functions of Attitude and Sources of Attitude Development, Attitude formation Theories (Tricomponent, Multi attribute and Cognitive Dissonance), Attitude Change Strategies.

UNIT - III

External Influences on Consumer Behaviour

Group Dynamics and Reference Groups: Consumer relevant groups, Types of Family: Functions of family, Family decision making, Family Life Cycle (Modern and Traditional) Culture: Values and Norms, Characteristics and influence on Consumer Behaviour, sub culture, Cross cultural consumer behavior. Social Class: Categories, Measurement and Applications of Social Class.

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UNIT-IV

Consumer Decision Making

Process and models (Howard Sheth, Nicosia Model, Engel Blackwell and Kollat). Personal Influence and Opinion Leadership: Process of Opinion Leadership, Profile of Opinion Leader, Opinion leadership and Firm's Promotional Strategy. Diffusion of innovations: Diffusion Process, Adoption Process, and Profile of Consumer Innovators

Suggested Readings:

- 1. Schiffman, L.G. and Kanuk, L.L., Consumer Behavior, Prentice Hall of India
- 2. Loudon, D. and Bitta, D., Consumer Behaviour, Tata Mc Graw Hill
- 3. Assael, H., Consumer Behaviour in Action, Cengage Learning
- 4. Blackwell, R.D., Miniard, P.W. and Engel, J.F., Consumer Behaviour, Thomson

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MBA 922-18

Services Marketing

Course Objective: The objective of this course is to help students understanding various factors affecting consumer behavior and to understand the process of consumer buying. Based on the understanding of consumer behavior, the students are expected to design the strategy.

Course Outcomes: Upon completion of this course, students will be able to:

CO1: Understand the fundamental concepts of service marketing and its functions.

CO2: Identify the role and significance of various elements of service marketing mix.

CO3: Analyze customer requirement, measure service quality and design and deliver better service

CO4: Analyze integrated services marketing communications and services marketing triangle.

CO5: Examine various pricing strategies and pricing approaches in service sectors.

CO6: Understand service marketing applications in different service sectors.

UNIT-I

Introduction to Services: Growth and development of service sector economy, contribution to the Indian economy, Service Characteristics, Service Classification, Service Marketing Mix. Consumer Behavior in Services: Customer Expectation of Service, Customer Perceptions of Service. Service Quality: Integrated gaps model of service quality. Prescriptions for closing quality gaps

UNIT - II

Managing relationships in Services: Building customer loyalty, Complaint handling and Service recovery strategies. Service development and design: Challenges of service design, types of new services, core and supplementary elements, new service development process. Service blueprinting: Nature, need and process of blueprinting. Physical evidence and the Servicescapes: Nature, Importance and Types, role and its effect on Consumer behaviour.

UNIT - III

Delivering and performing service through employees and customers: service culture, employee's role, strategies to deliver quality, cycle of failure, mediocrity and success, self service technologies and Customer Participation. Delivering services through intermediaries: Nature and types of intermediaries, role of electronic channels in service delivery. Managing demand and capacity: Waiting line strategies integrated. Integrated Services Marketing Communications and Services marketing triangle

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UNIT-IV

Pricing of services: Pricing approaches, Pricing Strategies. Service Marketing Applications: Marketing of services in Financial, Healthcare and Hospitality sectors.

Suggested Readings:

- Zeithmal A Valarie and Bitner Mary, Services Marketing, Tata McGraw Hill, New Delhi.
- 2. Lovelock, Christopher H. Services Marketing, Pearson Education, New Delhi
- P.K.Sinha and S.C.Sahoo, Services Marketing, Himalaya Publishing House, New Delhi

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MBA 911-18

Investment Analysis and Portfolio Management

Course Objective: This course aims to acquaint students with the market microstructure of financial markets and understanding of economic, industrial and company analysis. It shall also enable them to understand the valuable linkage between modern theories of finance and the analytical techniques used by investors for valuing securities and construct portfolios to achieve investor's investment goals.

Course Outcomes: Upon completion of this course, students will be able to:

CO1 – To familiarize the students about the basic concepts, various investment avenues, process of investment and market microstructure of financial markets.

CO2 - To enable students to understand the operation of primary as well as secondary markets in India and to understand the concepts of risk and its measurement.

CO3 – To familiarize the students with the concepts and process of fundamental analysis so that they may understand the impact of various environmental factors on investment valuation..

CO4 – To explain the concepts and process of technical analysis and enable the students to understand the role of daily price movements in portfolio management.

CO5 – To explain the concepts, process and techniques for portfolio construction, evaluation and revision.

CO6 – To familiarize the students about the financial derivatives and computation of their expected payoffs.

Unit I

Introduction: Concepts of investment, objectives of investment, various alternatives of investments, investment process, financial investments vs. real investments, differentiate investment, speculation and gambling. Risk and Return: Concept, types and measurement of risk and return.

Financial Markets - Primary and secondary markets. Introduction to primary market, design of primary market, its role and functions, types of offers in the primary market, SEBI guidelines on primary market

Secondary Market: Introduction, participants, trading and settlement Mechanism, types of orders, stop Loss, margin trading, short selling, price freeze, hair-cut, market wide circuit breakers, insider trading, bulk deals, block deals and arbitrage opportunity in the market.

Unit II

Fundamental Analysis: Meaning, scope and introduction to concept of intrinsic value. Process of conducting economic analysis; industry analysis and company analysis by using E-I-C and C-I-E approaches. Valuation of securities using fundamental analysis.

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Unit III

Technical Analysis: introduction, terminology of technical analysis, Dow theory, characteristic phases of Bull and Bear trends, critical appraisal of Dow theory, various types of charts, concept of trend, trend lines: support and resistance, Importance of trading volume, reversal patterns, continuation pattern, moving averages, other market indicators

Portfolio Management: Meaning, importance and approaches of portfolio management, portfolio analysis, portfolio evaluation and revision techniques.

Unit IV

Portfolio Theory: Markowitz Model, Capital Asset Pricing Model, Single-index model, Arbitrage Pricing Theory. Market Efficiency and Behavioral Finance

Derivatives: Introduction, features, derivative instruments, difference between forward and futures contracts, types of option contracts, computing payoffs of forward, futures and option contracts.

Suggested Readings

- Reily and Brown, Investment Analysis and Portfolio Management, Cengage, New Delhi
- 2. Bodie, Kane, Marcus and Mohanty, Investments, Tata McGraw Hill, New Delhi
- 3. Fisher DE and Jordon RJ, Security Analysis and Portfolio Management, PHI, New Delhi
- 4. Hirt and Block, Fundamentals of Investment Management, Tata McGraw Hill, New Delhi
- V. A. Avdhani 'Security Analysis and Portfolio Management' Himalaya Publications

6. Preeti Singh 'Investment Management' Himalaya Publications

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MBA 912-18

Management of Financial Services

Course Objective: The objective of the course is to understand role of Financial Services in Business organizations and to give an insight into the strategic, regulatory, operating and managerial issues concerning select financial services. In addition, the course will examine the present status and developments that are taking place in the financial services sector and developing an integrated knowledge of the functional areas of financial services industry in the real services industry in the real world situation.

Course Outcomes: Upon completion of this course, students will be able to:

CO1: To understand the concept of financial services and their importance.

CO2: To know the structure and schemes of mutual funds.

CO3: To understand the importance and process of Dematerialisation and remateralisation.

CO4: To know the structure and system of credit rating, leasing, merchant banking and venture capital.

CO5: To know the process and importance of factoring and securitisation.

CO6: To understand the process of asset liability management and risk management in banks.

Unit I

Financial Services: Meaning, types and their importance. Financial sector reforms in India, Future challenges for Indian banks, Improving risk management systems, Banking and the Management of Financial Services

Mutual Funds and Pensions Funds, Insurance Services, Bank assurances, Reinsurances, Venture Capital —Private Equity —strategic secrets of private equity, Investment strategies, Hedge funds, E banking, Securitization—Indian Banking and Financial crisis, Asset Reconstruction Companies, Depositaries, Credit Cards, Micro/Macro finance, Financial Inclusion, Behavioural Finance.

Depository – Introduction, Concept, depository participants, functioning of depository systems, process of switching over to depository systems, benefits, depository system in India, Dematerialization and Re materialization. Role, objectives and functions of SEBI and its guidelines relating to depository system.

Unit II

Credit rating: The concept and objective of credit rating, various credit rating agencies in India, Credit Rating Agencies –Importance, Issue, Difference in credit rating, Rating methodology and benchmarks, Are Indian Credit Rating Credible? International credit rating agencies –crisis of confidence?

Leasing: Concept and development of leasing, business, difference between leasing & hire purchase, types of leasing business, advantages to lessor and lessee. Tax aspect of leasing.

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Merchant Banking: Origin and development of merchant banking in India scope, organizational aspects and importance of merchant bankers. Latest guidelines of SEBI w.r.t. Merchant bankers.

Venture Capital: Concepts and characteristics of venture capital, venture capital in India, guidelines for venture capital.

Unit III

Debt Securitization: Meaning, Features, Scope and process of securitization.

Factoring: Development of factoring types & importance, procedural aspects in factoring, financial aspects, prospects of factoring in India.

Plastic Money: Concept and different forms of plastic money – credit and debit cards, pros and cons. Credit process followed by credit card organizations. Factors affecting utilization of plastic money in India.

Unit IV

Asset Liability Management: Significances, ALM process, Techniques – Gap, Duration, Simulation, Value at Risk value of equity and market value of equity perspective.

Risk Management in Banks: Credit risk management, Operational risk management, Market risk management, Corporate treasury management, Liquidity risk management, Governance risk and compliance, Asset Liability Management and Basel 2 – Basel 1 and 2, IPR and Basel 2, Three Pillars, ALM and Interest rate swaps, Swaps as a risk management tool, ALM and Capital Adequacy, ALM Software's.

Note: Relevant Case Studies should be discussed in class.

Suggested Readings:

- 1. M Y Khan 'Financial Services' Tata McGraw-Hill.
- 2. L M Bhole 'Financial Instructions & Markets' Tata McGraw-Hill
- 3. S Gurusamy 'Financial Services & System' Thomson Publications
- 4. V. A. Avdhani 'Financial Services in India' Himalaya Publications
- 5. Gordon & Natarajan ' Financial Markets & Services' Himalaya Publications
- 6. Vasant Desai 'Financial Markets & Financial Services' Himalaya Publications
- 7. Harrington, S. E. (2004). Risk management and insurance: Instructor manual (2nd ed.). New York: McGraw-Hill Publishing Company.
- 8. Madura, J. (2009). Financial markets and institutions (9th ed.). USA: South Western College.
- McDonald, S. S., & Koch, T.W. (2009). Management of banking (7th ed.). USA: Cengage Learning.
- Mishkin, F.S., & Eakins, F.S. (2009) financial markets and institutions. (6th ed.).
 New Delhi: Pearson Education.
- 11. Rose, P.S. (2008).Bank management and financial services (8th ed.) USA: McGraw-Hill Education.
- 12. Saunders, A., & Cornett, M.M. (2007). Financial institutions management: A risk management approach (6th ed.). New Delhi: McGraw-Hill.

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MBA 931-18 Organizational Change and Development

Course Objective: This course aims to introduce students to theories and concepts of organizational change and development and also it enhances the knowledge and understanding of organizational interventions terminology and provides students with the opportunity to apply the key concepts to practical organizational situations.

Course Outcomes: Upon completion of this course, students will be able to:

CO1:Develop understanding of organization change and Define, explain and illustrate theories of planned change, their relevant foundations, strengths and weaknesses.

CO2:Recognize and comment on issues and problems arising out of organizational change initiatives.

CO3:To Understand concepts related to system theory, Action Research and Models,

CO4:Understand the role of various intervention strategies in organizational development.

CO5: Facilitate organizational change; and apply diagnostic models and concepts to change issues at the organizational, group and individual levels.

CO6: Examine various issues in the relationship between client and consultant relationship.

Unit -I

Introduction to Organizational Change and Development; Definitions & its distinguishing characteristics, Dynamics of planned change, models and theories of planned change, triggers for change, strategies for implementing organizational change. Foundations of OD: Conceptual Framework of OD, Historical background of OD, Values, assumptions and beliefs in OD, Systems theory, Participation and Empowerment, Teams and Teamwork, Strategies of change, Inter-Disciplinary Nature of OD.

Unit -II

Action Research and OD, Action Research: A Process and an Approach. Managing OD Process: Diagnosis, The Six-Box Model, Third Waves Consulting, Nature of OD intervention, Analysis of Discrepancies, Phases of OD Program, Model of Managing Change, Creating Parallel Learning Structures.

OD Interventions: An overview, characteristics of OD interventions. Structural Interventions, Training Experience: T-Groups, Behavioral Modeling and Career Anchors.

Unit -III

Team Interventions, Intergroup and Third-Party Peace-Making Interventions. Comprehensive Interventions, Power, politics and OD: Power defined and explored, theories about the sources of Power, Organizational Politics in the practice of OD.

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Unit -IV

Issue in Consultant-Clint Relations: Entry and contracting, defining the client system, trust, the nature of the consultant's expertise, diagnosis and appropriate, interventions, depth of intervention, on being absorbed by the cultural, the consultant as a model, the consultant team as a microcosm, the dependency issue and terminating the relationship, ethical standards in OD, Implications of OD for the Client. Contemporary Issues in OD. OD and Quality Movement, OD- Now and Beyond.

Note: Relevant Case Studies should be discussed in class.

Suggested Readings:

- 1. Wendeel L. French, Cecil H. Bell: Organization Development Prentice Hall
- 2. Richard Beckhard: Organization Development Strategies & Models Tata Mc Graw
- 3. Blake, Robert & Mouton: Building a Dynamic Corporate through Grid OD, Homewood
- 4. Thomas H, Patten Organization Development through Team Building , Thomas Publication
- 5. Edgar F. Huse: Organization Development & Change, Thomas Publication
- 6. Burke W.W.: Organization Development Principles & Practice, Sage Publication
- 7. S. Ramnarayan & Kuldeep Singh and T.V. Rao: OD Interventions & Strategies, Response Books, New Delhi.

8. S. Ramnarayan, and T.V. Rao: OD – Accelerating Learning & Transformation, Sage, New Delhi

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MBA 932-18 Employee Relations

Course Objective: The aim of this course is to help students to understand basics of labour laws and industrial relations applicable in various business houses.

Course Outcomes: Upon completion of this course, students will be able to:

CO1: Understand establishing & maintaining a sound relationship between the worker & the employer.

CO2: Understand the significance & functioning of Trade Unions.

CO3: Identify the simmering issues which might take the form of a dispute in the workplace.

CO4: Examine various provisions laid down by laws to settle disputes in the organizations.

CO5: Assess the importance of various Acts in Industrial Relations. **CO6:** Comprehend the concept and classification of labour welfare.

Unit -I

Industrial Relations-Concept, Theories and Evolution, System approach to IR-Actors, Context, Web of Rules & Ideology, Trade Unionism, impact of trade unions on wages, The Trade unions Act, 1926 (with amendments), Factories Act, 1947 (with amendments).

Unit -II

Anatomy of industrial disputes. Dispute Settlement Machinery: Conciliation- Concept, Types, Conciliation Procedure and Practices in India; Adjudication – Concept and types; Arbitration: Approaches and types. Sexual Harassment.

Industrial Disputes Act 1947, Provisions in Industrial Disputes- Lay Off, Termination Retrenchment, Closures, VRS, Anatomy of Industrial disputes, Managing foreign nationals in Indian organizations.

Unit -III

Social Security: Concept, Social Assistance, Social Insurance.

Payment of wages Act,1936, Payment of Bonus Act, 1965, Workman's Compensation Act,1923, Payment of Gratuity Act 1982.

Unit -IV

Maternity Benefit Act,1961, ESI Act 1948, Provident Fund and Miscellaneous Provisions Act, 1951.

I.L.O and social Security. The concept of Labour welfare: definition, Scope and Objectives, classification of welfare work, agencies for welfare work. Agencies for administering labour welfare laws in India.

Note: Relevant Case Studies should be discussed in class.

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Suggested Readings:

- Venkata Ratnam, C.S. "Industrial Relations", Oxford University Press, New Delhi, 2006.
- Srivastava, S. C. "Industrial Relations and Labour Laws", Vikas Publishing House Pvt Ltd, New Delhi, 2008.
- Sinha, P.R.N., Sinha, Indu Bala and Shekhar, Seema Priyadarshini, "Industrial Relations, Trade Unions, and Labour Legislation", Pearson Education, New Delhi, 2004.
- Sen Ratna, "Industrial Relations in India", MacMillan, New Delhi, 2003.
- 5. Mamoria, Mamoria and Gankar. "Dynamics of Industrial Relations", Himalaya Publishing House, New Delhi, 2007.
- Monappa Arun, "Industrial Relations", Tata McGraw Hill Edition, New Delhi, 2007.
- 7. Davar, R S, Personnel Management and Industrial Relation, Vikas Publishing House Pvt. Ltd, New Delhi; 1999.
- 8. Sivarethinamohan, R, Industrial Relations and Labour Welfare- Text and Cases, PHI Learning Pvt. Ltd, New Delhi, 2010.

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I.K.G. Punjab Technical University MBA Batch 2018 onwards MB 941-18: Data Mining for Business Decisions

Objective: The objective of this paper is to acquaint the students with an introduction to data analytics, data mining, and data-driven decision making. Data mining enables one to extract useful insights, which then can be utilized for data-driven decision-making and competitive advantage. Data mining and data analytics involve a collection of techniques for extracting patterns and trends in large databases to present results to stakeholders in terms of the business objectives set, and how the information learned can be used to add value to the business. For this course, two software packages that are commonly used throughout industry are: WEKA, a well-established, highly popular data mining application, and R, a powerful open-source statistical language.

Course Outcomes: Upon completion of this course, students will be able to:

CO1: To understand the opportunities, techniques and critical challenges in using data mining and predictive modelling in a business setting.

CO2: Use research-based knowledge and methods including company analysis, primary and secondary data collection, analysis and interpretation of data to find solution to business problems

CO3: To understand and translate business challenges into data mining problems.

CO4: To become familiar with the processes needed to develop, report and analyze business data.

CO5: To gain an understanding of how managers use business analytics to formulate and solve business problems and to support managerial decision making.

Unit I

Need for strategic information, difference between operational and informational data stores Data warehouse: definition, characteristics, role and structure, Introduction to Business Intelligence. Introduction to OLAP and its Operations, Data mart, Building a data warehouse, Introduction to Dimensional Modelling and ETL Process.

Unit II

Introduction to Data mining Process, Data Mining functionalities, various kinds of Data mining (Text mining, Web mining, Pattern Mining, Sequence Mining, Context Based Mining), Introduction to Data Visualization, Predictive Data Mining and descriptive data mining. Need of Data analytics for business intelligence

Unit III

Regression and correlation; Classification: Decision trees; Clustoring - Neural networks; Market basket analysis - Association rules - Genetic Igorithms and link

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analysis, Support Vector Machine Bayesian Classification: Bayes theorem, Bayesian belief networks Naive Bayesian classification, Other classification methods: k-Nearest Neighbour, case based reasoning, Genetic algorithms, Fuzzy set approach

Unit IV

Introduction to prediction: linear and multiple regression, Clustering: types of Data in cluster analysis: interval scaled variables, Binary variables, Nominal, ordinal, and Ratio-scaled variables; Major Clustering Methods: Partitioning Methods: K-Mean and K-Mediods, Hierarichal methods: Agglomerative, Density based methods: DBSCAN

Note: Relevant Case Studies should be discussed in class. Suggested Readings:

- Data Mining: Concepts and Techniques By J.Han and M.Kamber Publisher
 Morgan Kaufmann Publishers
- Modern Data Warehousing, Mining and Visualization By George M Marakas, Publisher Pearson

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MB 942 - 18: E-Commerce and Digital Markets

Objective: The objective of this paper is to acquaint the students with the effectiveness of ecommerce and digital marketing. Students will learn about the implications of an increasingly technological Society and to provide insights on how to implement marketing in a digital world.

Course Outcomes: Upon completion of this course, students will be able to:

CO1: To understand of various applications and scope of ecommerce.

CO2: To know the working of various payment modes used in ecommerce today.

CO3: Understand how and why to use digital marketing for multiple goals within a larger marketing and/or media strategy, Developing effective digital and social media strategies

CO4: Understand the major digital marketing channels - online advertising: Digital display, video, mobile, search engine, and social media

CO5: Students will be able to explore the latest digital ad technologies

Unit I

Need and Origin of E-Commerce, Factors affecting E -Commerce, Business dimension and technological dimension of E-Commerce, E-Commerce framework

Electronic Commerce Models, Value Chains in Electronic Commerce. Internet and E-Business Introduction to Internet and its application, Intranet and Extranets. World Wide Web, Internet Architectures, Internet Applications, Business Applications on Internet, E - Shopping, Electronic Data Interchange, Components of Electronic Data Interchange, Creating Web Pages using HTML.

Unit II

Technology for Online Business: Internet, IT Infrastructure, Middleware Contents, Text and Integrating E-Business Applications, Mechanism of Making Payment Through Internet, Online Payment Mechanism, Electronic Payment Systems, Payment Gateways, Visitors to Website, Tools for Promoting Website, Plastic Money, Debit Card, Credit Card, Laws Relating to Online Transactions. Applications in E-commerce: E-commerce Applications in Manufacturing, Wholesale, Retail and Service Sector

Unit III

Understanding Digital Marketing Process, Digital marketing vs. Traditional marketing, Website Planning Process: Understanding Domain names & Domain extensions, Search Engine Optimization: Understanding SEO, SEO Keyword Planning, On Page SEO, Off Page SEO, Local SEO, Social media marketing, Understanding the existing Social Media paradigms & psychology, How social media marketing is different than others Forms of Internet marketing, Google analytics: Introduction to Google Analytics, how Google Analytics works, Google AdWords & Online Display advertising

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Unit IV

Email marketing: Need, working and challenges faced in sending bulk emails, Types of email marketing- Opt-in & bulk emailing, Lead Generation for Business: Understanding lead generation for business and its importance. Landing page vs website, Content marketing, Affiliate marketing: Sources to Make Money Online, Selecting Affiliate Program, Blogging & freelancing to make money, AdSense, approval process and AdSense Administration. E Business Entrepreneurship.

Note: Relevant Case Studies should be discussed in class.

Suggested Readings:

- Whitley, David, "E-Commerce Strategy, Technologies and Applications", Tata McGraw
- Gary P. and Perry, James T., "Electronic Commerce, Schneider", Thomson Learning.
- Bajaj, Kamlesh K & Nag, Debjani, "E-Commerce: The Cutting Edge of Business", McGraw Hill
- Laudon and Traver, "E-Commerce: Business, Technology & Society", Pearson Education
- Damian Ryan, Calvin Jone. Kogan Page; "Understanding Digital Marketing: Marketing Strategies for Engaging the Digital Generation".
- Kent Wertime, Ian Fenwick; "DigiMarketing: The Essential Guide to New Media and Digital Marketing"

Seema Gupta, Digital Marketing, McGraw Hill

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MBA 401-18 Corporate Strategy

Course Objective: This course aims to familiarize the students with organization perspective from strategic viewpoint integrating different functional areas of management. The aim is to develop an understanding of how organizational strategies are formulated and implemented in a changing global environment.

Course Outcomes: After studying this course, the students should be able to:

CO1: Understand the concepts of strategic management process and strategic decision making process.

CO2: Discuss various techniques of external as well as internal environmental analysis of business.

CO3: Explain various business level and corporate level strategies for the growth of the business along with their implications.

CO4: Illustrate the issues involved in strategy implementation and the role of leadership, communication and organizational structure in implementation of strategy.

CO5: Develop various functional plans for successful implementation of strategy.

CO6: Understand organisational systems and techniques of strategic evaluation and control.

Unit I

Understanding Strategy and Strategic Management: Strategic Management Process, Strategic Decision Making, Levels of Strategy, Role of strategists, Benefits of Strategic Management, Mckinsey's 7 S model.

Defining Strategic Intent: Vision, Mission, Goals and Objectives.

External Environment Analysis: Concept of environment, Strategically Relevant Components of External Environment, Environmental Scanning Techniques- ETOP, PEST, SWOT, TOWS.

Unit II

Industry analysis- Porter's Five Forces Model; Strategic Group Mapping; Industry Driving Forces; Key Success Factors, External Factor Evaluation Matrix.

Internal Environment Analysis – Organisational capabilities in various functional areas and Strategic Advantage Profile. Resource based view of an organization: VRIO Framework; Value Chain Analysis; Competitive Advantage and Core Competency, Identification of Critical Success Factors (CSF). Internal Evaluation Factor Matrix.

Business Level Strategies – Porter's Framework of Competitive Strategies: Cost, Leadership, Differentiation and Focused Strategies, Location and timing tactics. Concept, Importance, Building and use of Core Competence.

Unit III

Corporate Level Strategies – Expansion (growth)-Horizontal and Vertical Integration, Strategic outsourcing, Related and Un-related Diversification, International Entry Options, Corporate restructuring. Concept of Synergy, Mergers & Acquisitions, Stability, harvesting and Retrenchment and Combination strategies.

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Strategic Analysis and choice (Multi Business Strategies: Portfolio Strategies) – BCG, GE Nine cell, Product life cycle Matrix).

Unit IV

Strategy Implementation— Strategy- Structure Fit: Resource allocation, Projects and Procedural issues. Organisation structure and systems in strategy implementation. Leadership and corporate culture. Operational and derived functional plans to implement strategy. Integration of functional plans.

Strategy Evaluation and Control – Nature of Strategy Evaluation; Strategic control and operational Control. Organistional systems and Techniques of strategic evaluation, Strategy Evaluation Framework; The Balanced Score Card.

Suggested Readings:

- Thompson, Arthur A Jr.; Strickland A J III; Gamble, John E and Jain, Arun K. "Crafting and Executing Strategy. The Quest for Competitive Advantage - Concepts and Cases", Tata McGraw, New Delhi.
- Kazmi, Azhar, Strategic Management, Tata Mc. Graw
- Wheelen Thomas L. & Hunger J. David; Concepts in Strategic Management and Business Policy; Pearson Education
- Pearce III, John A, Robinson, Jr., Richard B and Mittal, A "Strategic Management:Formulation, Implementation and Control. Tata McGraw Hill.
- David, R Fred, "Strategic Management- Concepts and Cases", Pearson Education, India.
- Hill, Charles W L and Jones Gareth R, "An Integarated Approach to Strategic Management" Cengage Learning
- Pitts, Robert A and Lei, David. "Strategic Management Building and Sustaining Competitive Advantage", Thomson, India
- Porter, M.E., Competitive Advantage: Creating and Sustaining Superior Performance, Free Press, New York.



MBA 923-18 Integrated Marketing Communication and Sales Management

Course Objective: This course will help the students to understand the principles and practices of marketing communication, tools used by marketers to inform consumers and

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to provide a managerial framework for integrated marketing communications planning as well as sales management.

Course Outcomes: After successfully completing this course, students will be able to: **CO1**: Apply the key terms, definitions, and concepts used in integrated marketing communications.

CO2: Conduct and evaluate marketing research and apply these findings to develop competitive IMC Programme.

CO3: Examine the role of various promotional strategies such as advertising, direct marketing, sales promotion and PR in effectiveness of marketing communication.

CO4: Understand and apply the concepts of sales management and organization.

CO5: Develop sales related marketing policies such as product policies, distribution policies & pricing policies.

CO6: Explain various sales operations such as sales budget, sales territories, sales Quota's, control of sales, sales meeting and sales contest, organizing display, showroom and exhibition.

UNITI

Role of IMC in marketing process: IMC planning model, IMC components. Communication process, steps involved in developing IMC programme, Effectiveness of marketing communications, Purpose, Functions, Types of IMC. Advertising management: Advertising appeals, advertising designs, Advertising agencies, Advertising Budgeting, Media planning and evaluation, Media strategy: Creativity, Elements of creative strategies and its implementation.

UNIT II

Direct Marketing: Features, Advantages/Disadvantages, strategies in Direct Marketing Promotion: Meaning, Importance, tools used, push pull strategies, Publicity/ Public relations: Meaning, Objectives, strategies and tools of public relations. Corporate Advertising Role, Types, Limitations, Monitoring, Evaluation and control: Measurement in advertising, various methods used for evaluation, Pre-testing, Post testing. International Advertising: Global environment in advertising, Internet advertising: Meaning, Components, Advantages and Limitations, Types of Internet advertising.

Unit-III

Sales Management and Organization: Objectives of sales management, sales executive as a coordinator, sales management and control, sales organization - it's purpose, setting up a sales organization, types of sales organization. Objectives and theories of personal selling, analyzing market potential, sales potential and sales forecasting method & evaluation, determining sales related marketing policies - product policies, distribution policies & pricing policies.

Unit- IV

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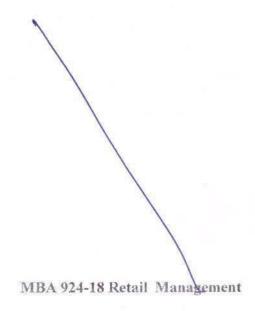
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Sales Operations: Sales budget, sales territories, sales Quota's, control of sales, sales meeting and sales contest, organizing display, showroom and exhibition. Sales manager- Qualities and functions, types of salesman, psychology of customers.

Note: Relevant Case Studies should be discussed in class.

Suggested Readings

- 1. Kenneth . E. Clow and Donald Baack, "Integrated Advertising, Promotion and Marketing Communication", Prentice Hall of India
- 2. Philip j. Kitchen and Patrick D. Pelsmacker, "Integrated Marketing Communication- A Primer", Routledge London.
- 3. Spiro, Stanton and Rich "Management of a Salesforce", Tata McGraw Hill; 11th Edition.
- 4. Richard R Still, Cundiff W Edward Govoni A P Norman, "Sales Management: Decision Strategy and Cases", Pearson Education; 5th Edition.
- 5. Mark W. Johnston & Greg W. Marshall, 'Sales Force Management', Tata McGraw-Hill
- 6. Rosenbloom, Bert, 'Marketing Channels: A Management View', Cengage Learning,
- 7. Havaldar, K. K. and Cavale, VM. 'Sales and Distribution Management', Tata McGraw Hill,
- 8. Chunawalla, S.A. Sales and Distribution Management, Himalaya Publishing House



Course Objectives: This course enables students to understand the evolution of retailing and the strategic role of retailing in the distribution of consumer goods and services. The content of the course is useful for students interested in a retail career, working for companies that interface with retailers, or interested in owning of running a retail business.

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Course Outcomes: After studying this course, the students should be able to:

CO1: Understand opportunities and challenges in retail management and retail management decision process.

CO2: Examine various types of retail formats and comprehend the application of theories of retail development on business models in retail.

CO3: Discuss and apply various function of store management.

CO4: Recognize the importance of store design and apply the concepts of store design to determine store layout and merchandising.

CO5: Understand the importance of customer service in improving retail service qualities.

CO6: Describe the applications of IT in retailing.

Unit - I

Introduction to Retailing: Economic Significance, Opportunities in Retailing, Retail Management Decision Process

Retailing in India: Evolution of Retail in India, Drivers of Retail Change and Challenges to Retail Development in India.

Unit-II

Types of retailers: Food Retailers, General Merchandise Retailers, Non-Store Retail Formats, Services Retailing, Types of Ownership.

Retail Models & Theories of Retail Development: Evolution of Retail Formats, Theories of Retail Development, Concept of Life cycle in Retail, Business Models in Retail

Unit-III

Managing the Store: Store Management Responsibilities, Recruiting & Selecting Store

Employees, Socializing & Training New Store Employees Motivating, Managing & Evaluating Store Employees.

Store Layout, Design & Visual Merchandising: Objectives of Good Store Design, Store Layout. Space Planning and Merchandise Presentation Techniques. Atmospherics.

Unit-IV

Customer Service: Strategic Advantages Through Customer Service, Customer Evaluation of Service Quality, GAPS Model for improving Retail Service Quality. Application of IT to Retailing: Growing Role of IT in Retailing, IT for Competitive Advantage, Data Mining, Database Marketing, Business Intelligence. International Retailing: International Retail Structures, MotiChain Integration.

Note: Relevant Case Studies should be discussed in class.

Suggested Readings:

1. Levy, Michael and Barton A. Weitz (2003), Retail Management. Tata McGraw Hill, 5th

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Edition.

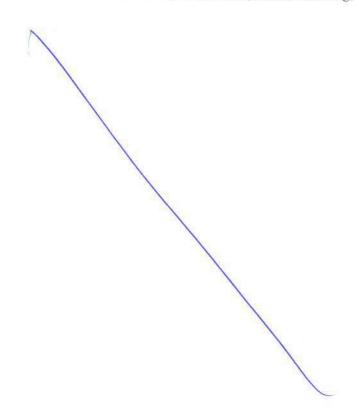
- 2. Sinha, P. K. and Uniyal, D. P. (2007), Managing Retailing, Oxford, 1st Edition.
- 3. Newman, Andrew J. and Peter Cullen (2007), Retailing: Environment and Operations, Thomson,
- 4. 1st Edition.
- 5. Pradhan, Swapna (2007). Retail Management Text and Cases, Tata McGraw Hill, 2nd

Edition.

6. Cox, Roger and Paul Brittain (2004), Retailing – An Introduction, Pearson Education, 5th

Edition.

- 7. Gilbert, David (1999) Retail Marketing Management, Prentice Hall, 1st Edition.
- 8. Dunne, Patrick M; Robert F. Lusch and David Griffith (2002), Retailing, Thomson



MBA 925-18 International and Social Media Marketing

Course Objectives: The course aims at acquainting students with the concepts and procedures for international marketing and trains them to develop and implement plans and strategies for entering international markets and managing overseas operations. The course also helps students to understand the basics in Social Media Marketing and Blogging.

Course Outcomes: After successfully completing this course, students will be able to: CO1: Assess the challenges in international marketing and understand various international market entry strategies.

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CO2: Evaluate international marketing environment and identify various international trade barriers and regional blocks.

CO3: Develop international product, pricing and communication policy and examine international distribution system.

CO4: Discuss the evolution of social media marketing and identify various benefits and applications of social media.

CO5: Explain how to develop effective social media marketing strategies for various types of industries and businesses.

CO6: Describe the major social media marketing portals that can be used to promote a company, brand, product, service or person.

Unit-I

Definition and challenges of international marketing, Reasons for going international, International Market Segmentation and Positioning; International Market Entry Strategies: Screening and Selection of Markets; Methods to enter International markets. International Marketing environment: political, legal, environmental, socio Cultural and Technological environment, Country Risk Analysis, International Economic environment: IMF, WTO, International Monetary System, International Trade Barriers: Tariff and Non-Tariff. Regional Blocks: European Union, NAFTA, SAARC, ASEAN, International Marketing Research.

Unit-II

EXIM policy of India, export promotion organizations, incentives, Export documents. organisation and structure of export and import houses. International product and pricing policies: Product standardization & adaptation, international pricing strategies. International distribution system: International distribution channels, types, role of internet in international distribution International communication policy: communication strategies in international marketing, international promotion mix.

Unit III

Introduction to Social Media Marketing: Evolution, from traditional to Modern marketing, Rise of internet and E concepts. Emergence of social media marketing as a tool. Social media Channels: Types and models, Social media benefits and applications, Social media marketing framework. Consumer behavior on the Internet: Basics, evolution of the digital consumer, managing consumer demand. IMC. Social media marketing strategies: Introduction, defining social media marketing mix, social media marketing planning, social media marketing marketing channels.

Unit IV

Social media marketing campaign: Elements of marketing campaigns, implementing social media marketing campaigns, SEM, SEO, Content marketing, Social media execution, campaign analytics and ROI, Managing social media marketing revenue: social media marketing revenue sources, managing service delivery and payments, Emerging trends in social media marketing: Big data, IOT, Content Creation and Sharing: Blogging, micro blogging, Streaming Video, Podcasts, and Webinars.

Note: Relevant Case Studies should be discussed in class.

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Suggested readings

 Czinkota M, Ronkaine I, Sutton Brady, C. and Beal, T. International Marketing, Cengage Learning.

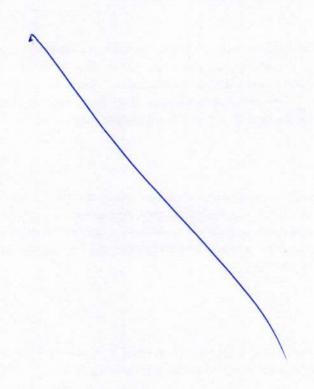
2. Cherunilam F, International Trade & Export Management, Himalaya

Publishing.

3. Cateora & Graham, International Marketing, McGraw Hill.

4. Dan Zarella, Social media marketing, O reilly.

5. R Solomon and Tracy, Social Media Marketing: Pearson New International Edition



MBA 926-18 Product and Brand Management

Course Objective: To create understanding among students for concepts, process, techniques of product and management. The course also aims to familiarize students with the concept of a 'brand', the role of branding in marketing strategy; brand equity, its importance and measurement, how to create and retain brand equity; operational aspects of brand management.

Course Outcomes: After studying this course, the students should be able to: CO1: Understand what a product is, the various levels which make it up, and different types of products.

CO2: Examine various challenges and issues involved in product planning and development.

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CO3: Discuss and apply the concepts of test marketing and market entry of a product.

CO4: Recognize the features and importance of a brand and conduct branding research.

CO5: Understand the concept of brand loyalty and measuring brand performance.

CO6: Describe the role of various branding strategies in brand equity management.

Unit I

Product management: meaning, importance of the product manager's job, planning and control systems for product management, product portfolio planning and analysis, Mapping, understanding company product/brands and competitive brand market position, Impact of global forces on products.

Unit II

Product planning and development: Meaning, objectives, Strategic reasons, processes challenges and issues, Forecasting demand, Estimating market opportunity, test marketing, types, design issues, Evaluation of test marketing results, Market entry decisions - Launching new product programs, National launching of new products, Tracking the launch, absorbing the new product in the mix.

Unit III

Basic understanding of brands: concepts and process, significance of a brand, brand mark and trade mark, **Different types of brand:** family brand, individual brand, private brand, Co-branding, selecting a brand name. **Functions of a brand:** branding decisions, influencing factors. Understanding customer-cased brand equity. Monitoring brand performance. **Branding research:** Designing and implementing branding research, Brand design and structures.

Unit IV

Brand loyalty: loyalty programs, Building strong brands. Measuring brand performance, Brand extensions. **Brand Equity Management:** Brand Equity Measurement, Brand Leverage, Global Branding strategies, Brand Audit, Role of Brand Manager, Branding challenges & opportunities. **Brand rejuvenation and re-launch**, brand development through acquisition takes over and merger, relaunching the brand, need, methods and success rate

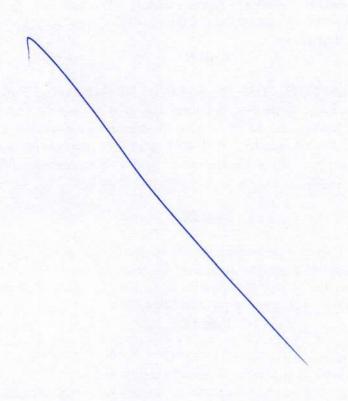
Note: Relevant Case Studies should be discussed in class.

Suggested readings:

- 1. Keller, Kevin Lane, Strategic Brand Management: Building, Measuring and Managing Brand Equity, Prentice Hall of India, Third Edition, (2008).
- 2. Aaker, David A., Managing Brand Equity: The Free Press, (1991).
- 3. Kapferer, Jean-Noel, The New Strategic Brand Management, Kogan Page 3rd Edition, (2008).
- Sengupta, Subroto, Brand Positioning, Tata McGraw-Hill Publishing, 2nd Edition, (2005).

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5. Venugopal 'Product and Brand Management' Himalaya Publications



MBA 913-18 Behavioural Finance

Course Objective: The primary objective of the course is to make the students understand how behavioural bias affects the classical financial theory.

Course Outcomes: After studying this course, the students should be able to:

CO1: Understand and differentiate between different theories of behavioural finance.

CO2: Examine the concepts of bounded rationality.

CO3: Discuss various anomalies in the market giving rise to behavioural bias.

CO4: Describe the basis of behavioural bias of professional investors trading in market.

CO5: Understand the concept of market efficiency and will be able to relate it with the concept of behavioural finance.

CO6: Describe the challenges to the efficient market hypothesis.

Unit I



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Introduction: Meaning, features and scope of behavioural finance. Rational Expectations Paradigm and the Behavioural Challenge

Theories of Behavioural Finance: Agency theory, Prospect theory, Reasoned emotions; Overreaction and optimism. Rationality to psychology, Neo-classical finance and Efficient Market Hypothesis

Unit II

BEHAVIOURAL ASPECTS OF INVESTING: Heuristics and Biases, Self-deception, Emotional Factors and Social Forces and Neuro-scientific and Biological Perspective, Small / Medium / Large firm effect, Momentum Vs Reversal, Noise trader risk in financial market, Attitude to risk, Expected utility, Mental accounting, Over confidence, Emotion and reasoning, Excessive risk taking, Behavioural explanation for anomalies, Excessive volatility, Loss aversion, Gamblers' faliacy

Unit III

Investor behaviour: Types of investors – on the basis of risk appetite and investment exposure, Conformity, Contrarian investing, Social forces selfishness or altruism, Group psychology on Board, Resistance to recognising failure, Conflict of interest. Value investing and growth investing. Stock market bubbles.

Unit IV

Model of Investor Sentiment
Market Efficiency and Biases in Brokerage Recommendations
Evidence on the Characteristics of Cross-sectional Variation in Stock Returns
Behavioural Corporate Finance and Wisdom from Other Sources

Suggested Readings:

- 1. Chandra, P. (2017) 'Behavioural Finance', McGraw Hill.
- 2. Parikh, P (2017), 'Value Investing and Behavioural Finance: Insights into Indian Stock Market Realities', Tata McGraw Hill.
- 3. Davies, G. B. and Servigny, A. D. (2010), 'Behavioural Investment Management: An Efficient Alternative to Modern Portfolio Theory', McGraw Hill.
- 4. Forbes, W. (2011), 'Behavioural Finance', John Wiley and Sons Ltd.
- 5. Sulphey, M. M. (2014), 'Behavioural Finance', PHI Learning.
- 6. Ackert, L. F. and Deaves, R. (2012), 'Understanding Behavioural Finance', Cengage Learning.
- 7. Graham, B. (2013), 'The Intelligent Investor' Harper and Brothers.

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MBA 914-18 Mergers, Acquisitions and Corporate Restructuring

COURSE OBJECTIVE: The main objective of this course is to enable the students to understand, evaluate, and interpret the significance of Mergers, Acquisitions and Corporate Restructuring in the current global business environment, and enable them to appreciate how these strategic decisions are affected by various issues like valuation, regulatory environment and methods of payment.

Course Outcomes:

- To explain the popularity of merger and acquisition strategies in firms competing in the global economy.
- To describe the reasons why firms use an acquisition strategy to achieve strategic competitiveness.
- To describe the issues that are significant in valuation decisions, and the factors which work against achieving success when using an acquisition strategy.
- 4) To define the restructuring strategy and distinguish among its common forms.

5) To explain the regulatory aspects of mergers, acquisitions and corporate restructuring.

UNIT-I

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Introduction to Mergers, Acquisitions and Corporate Restructuring: Evolution, Need and Reasons/Motives for Mergers and Acquisitions. Forms of Corporate Restructuring. Mergers and Acquisitions as Strategic Choice. Evaluation of Strategic Alternatives. Value Creation in Mergers and Acquisitions. Takeover Defence Strategies. Reasons for Failures of Mergers and Acquisitions.

UNIT-II

Demerger, Reverse Merger and Buyback of Shares. Strategic Alliances: Types, Structure and Problems in Strategic Alliances. LBO(Leveraged Buy Out): Characteristics. Categories, Financing. Types of LBO Sponsor. Restructuring of Sick Companies. Deal Valuation in Mergers and Acquisitions: Factors affecting valuation, Valuation Basics. Valuation of Intangibles.

UNIT-III

Methods of Payment and Financing Options in Mergers and Acquisitions. Impact on EPS(Earning Per Share). Determinants of Mergers and Acquisitions Financing Decisions. Accounting Aspects of Mergers and Acquisitions. Impact of Mergers and Acquisitions on Shareholder Wealth.

UNIT-IV

Tax Implications of Mergers and Acquisitions. The Process of Integration in Mergers and Acquisitions. International Mergers and Acquisitions: Motivations, Strategies and its Execution. Due Diligence in Mergers and Acquisitions, Regulatory Aspects of Mergers and Acquisitions

Suggested Readings:

- 1. Aurora, Rajinder S, Shetty, Kavita and Kale, Sharad, "Mergers and Acquisitions(2011)"Oxford Higher Education.
- 2. Kar, Rabi Narayan (2017), "Mergers, Acquisitions and Corporate Restructuring-Strategies and Practices", 3rd Edition, International Book House Pvt. Ltd., New Delhi.
- 3. Krishnamurti, Chandrashekar and Vishwanath,S R(2018), Acquisitions and Corporate Restructuring: Text and Cases", SAGE Publications.
- 4. Kapil, Sheeba & Kapil, Kanwal N. (2018), "Mergers and Acquisitions: Strategy, Valuation, Leveraged Buyouts and Financing" Wiley Publications.
- G. Godbole (2013), "Mergers, Acquisitions Corporate Restructuring", Vikas Publishing House.
- 6. Sharma, Dr. Manu(2015). "Mergers, Acquisitions and Corporate Valuation", Dreamtech Press.
- 7. Sudarsanam, S(2016), "Creating Value from Mergers and Acquisitions". Pearson Education.

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MBA 915-18 International Finance and Financial Derivatives

Course Objective: The primary objective of the course is to familiarize the students with the different aspects of finance in respect of international trading and investing and to equip them with the trading framework of different types of derivative contracts.

Course Outcomes: After studying this course, the students should be able to:

CO1: Understand the framework of international exchange rate system including factors influencing exchange rates.

CO2: Discuss the basics of different types of derivative contracts like futures, options and swaps.

CO3: Understand various types of risks / exposures in forex trading and their management.

CO4: Describe various theories underlying the concepts of international finance.

CO5: Understand trading strategies using options contracts.

CO6: Describe the regulatory framework of derivatives contracts in India.

Unit I

International Finance: An overview, importance, nature and scope, recent changes and challenges in IFM. International flow of funds: Balance of Payments (BoP),

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Fundamentals of BOP, Accounting components of BOP, Factors affecting international trade flows, Agencies that facilitate International flows. **International Monetary System:** Evolution, Gold Standard, Bretton Woods system, the flexible exchange rate regime, the current exchange rate arrangements, the Economic and Monetary Union (EMU).

Foreign Exchange Market: Function and Structure of the Forex markets, Major participants, Types of transactions and settlements dates, Foreign exchange quotations, Factors influencing foreign exchange rates.

Unit II

Parity Conditions in International Finance and Currency Forecasting: PPP, the Fisher effect, The International Fisher Effect, Interest Rate parity Theory, The relationship between forward and future spot rate.

International Sources of Finance: Long Term- International Capital Markets (ADR's, GDR's), Foreign Bond Market, Foreign Banks, Euro Markets, World Bank and IMF. Short Term: Banker's Acceptance, Discounting, Factoring, Forfating, EXIM Bank of India

Unit III

Derivatives: Meaning, Types, Importance, Principles and regulatory framework in India

Forward and Futures Contracts: Meaning, Difference between forward and futures contracts, pricing of futures contracts, determinants of value of futures contracts, Markto-Market, Payoffs of futures contracts. Speculation, Hedging and Arbitrage by using futures contracts.

Options Contracts: Meaning, type, importance, Black-Scholes Model for pricing options contracts, factors determining option prices, Payoffs of Call Option and Put Option contracts, Put-Call Parity. **Option Trading Strategies:** Covered call writing, protective puts, Straddles, Strangles, Strips, Straps, Spreads including butterfly spreads, calendar spreads etc.

Unit IV

Swaps and Swaptions: Meaning, types, importance and pricing of swaps and Swaptions. Factors determining price of swaps and Swaptions.

Credit Derivatives: Meaning, Importance, pricing models and strategies to hedge by using credit derivatives.

Foreign Exchange Risk Management: Measuring and managing Transaction exposure, Measuring and Managing Economic exposure, and Measuring and Managing translation exposure, Country Risk Analysis, Foreign Exchange and Derivative Markets: Currency Futures and option Markets, Swap and Interest rate derivatives.

Suggested Readings:

1. P. G. Apte, International Financial Management, Tata McGraw-Hill, New Delhi.

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- 2. Alan C. Shapiro, Multinational Financial Management, Prentice Hall India Private Ltd,
- 3. Jeff Madura, International Financial Management, Thomson Publications.
- 4. Maurice D. Levi, International Finance, Tata McGraw-Hill, New Delhi.
- 5. S. Eun Choel and Risnick Bruce, International Financial Management, Tata McGraw
- 6. Hill, Hull, John C.: Options, Futures and Other Derivatives, Prentice Hall of India
- 7. Walmsley, Julian: New Financial Instruments, Prentice Hall of India
- 8. Marshall, John F. and Bansal, Vipul K.: Financial Engineering, Prentice Hall of India
- 9. Strong, Robert A.: Derivatives An Introduction, Thomson South-Western
- 10. Kumar, S.S.S: Financial Derivatives, Prentice Hall of India



MBA 916-18 Taxation and Personal Financial Planning

Course Objective - To enable the students to understand the importance of tax management and various methods available for tax planning. This course also aims to acquaint students with the importance and methods for personal financial planning.

Course Outcomes:

CO1 – The students will be familiarised with the concepts of tax management, tax avoidance and tax evasion and the methods of ways of tax planning.

CO2 – To acquaint students with the provision of the current finance act with regard to various head of income.

CO3 – To enable students to compute the tax liability of individuals after considering their residential status, various exempted incomes, permissible deduction, clubbing of income and setting off of losses.

CO4 – To familiarise students with the concept, objectives and importance of personal financial planning and enable the students to understand the implications of environmental factors and time value of money on the personal financial statements.

CO5 – To enable students to identify various types of risks any individual is exposed to and how they can hedge diversifiable risk.

CO6 – To familiarise students with various instruments available for investment by an individual for achieving their personal financial goals

UNIT I:

Tax Management: Introduction to tax management, features and scope of tax management. Differentiate between tax planning, tax avoidance and tax evasion.

Tax Planning: Meaning, need, scope, objectives and methods of tax planning.

UNIT II:

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Tax planning for Five Heads of Income: Income from salary, house property, profits and gains from business or profession, capital gains and income from other sources. Tax Planning with reference to Residential status, exempted incomes, permissible deductions, clubbing of income and setting off & carry forward of losses.

UNIT III:

Personal Financial Planning: Introduction, features, objectives and scope of personal financial planning.

Environmental Analysis: Screening and analysis of environmental factors affecting personal financial planning.

Time Value of Money and Personal Financial Statements: Meaning and calculation of present value and future value of money. Factors affecting the time value of money and its impact on the personal financial statements.

UNIT IV:

Personal Risk Management: Meaning of risk, measurement of risk and its identification (Risk taker, moderate risk taker, risk averter), introduction to life insurance and general insurance, differentiate between life insurance and investment. Insurance planning for the individual as well as family.

Investment Planning: Meaning and process of investment planning. Investment Planning objectives – Retirement planning, tax saving, capital growth, liquidity and safety

Investment Instruments for Personal Financial Management: Tax saving instruments (all investments covered u/s 80C like, Provident fund, PPF, ELSS, NPS etc.), Mutual fund schemes (open ended and closed ended; growth and dividend schemes), Fixed income securities (Government bonds, corporate debt securities, bank deposits, fixed income plans by mutual funds, post office saving schemes etc.), Capital market instruments (Equity shares, Preference shares, Debentures, Long-term Government as well as corporate securities, Derivatives etc.), Money market instruments (T-bills, Commercial papers, certificate of deposits etc.) and Real Assets (like Real estate, precious metals, antiques etc.).

Suggested Readings:

- Mehrotra, H. C. and Goyal, S. P., 'Income Tax: Tax Planning and Management' Sahitya Bhawan Publications.
- 2. Singhania V.K., 'Direct Taxes: Law and Practice', Taxmann Publications
- 3. Ahuja, G. and Gupta, R., 'Practical Approach to Direct and Indirect Taxes: Containing Income Tax and GST', Wolters Kulwer

Gaur, V. P. and Narang, D. B., 'Income Tax Law and Practice'



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MBA 933-18 International Human Resource Management

Course Objective: This course provides an understanding of the role of human resource management (HRM) in international contexts. The course is divided into three areas of study: the context of international HRM, strategic and functional HRM in international contexts, and comparative international contexts.

Course Outcomes:

CO1: Understand issues, opportunities and challenges pertaining to international HRM.

CO2: Develop competency in dealing with cross cultural situations.

CO3: Understand the strategic and functional roles of HRM in various international contexts, especially in areas such as recruitment and selection, performance management, training, learning and development, career management, compensation, motivation and repatriation;

CO4: Identify the role of cross cultural leadership in managing multicultural teams. CO5: Understand external forces (e.g. globalisation, sociocultural changes, political and economic changes) that have the potential to change interesting the control of the con

and economic changes) that have the potential to shape international HRM.

CO6: Develop generic and transferable skills-especially in diagnosing international HRM issues critically and analytically and discussing specific cases relating to international HRM.

Unit-I

International Human Resource Management: Concept, Difference between Domestic and International HRM, Variables that moderate difference between Domestic and International HRM.

Sustaining International Business Operations: Approaches to Staffing, Transferring Staff for International Business Activities, Role of Expatriates and Non-Expatriates, Role of the Corporate HR function.

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Recruiting and Selection Staff for International Assignments: Concepts, Issues in Staff Selection, Factors Moderating Performance, Selection Criteria, Dual Career Couples and Role of Women in International Management.

Unit -II

Re-entry and Career Issues: Concept and Repatriation Process, Individual Reactions to Re-entry, Multinational Responses, Designing a Repatriation Program.

Training and Development: Concept, Role of Expatriate Training, Expatriates or Local Managers, Components of Effective Predeparture Training Programs, Effective of Pre-Departure Training, Developing Staff through International Assignments. Staffing and Training for Global Operations, Global Staffing Choices, Dynamics of Cross-Cultural leadership, managing and motivating multi culture Teams.

Unit -III

Performance Management: Concept, Multinational Performance Management,

Performance

Management of International Employees, Performance of Appraisal of International Employees.

Compensation: Concept and Objectives of International Compensation, Key Components of an International Compensation Program, Approaches to International Compensation.

Unit-IV

Knowledge Transfer within a Multinational Company: Organizational Knowledge and its Significance, Sources of Organizational Knowledge; Tacit and Explicit Knowledge; HRM and Organizational Knowledge; Transfer of Knowledge between and within organizations, Transfer of Knowledge within MNCs, Transfer of Knowledge across National Borders, Transfer of Managerial Know-how and HRM across National Borders.

Industrial Relations: Key issues in International Industrial Relations, Trade Union and International Industrial Relations, Responses of Trade Unions to Multinationals; Regional Integration: the European Union, Issue of Social Dumping, Impact of Digital Economy. National Context of HRM: HRM Practices in Japan, United Kingdom, United States, India and China.

Note: Relevant Case Studies should be discussed in class.

Suggested Readings: -

- Peter, J. Dowling and Denice, E. Welch (2007), International Human Resource Management, Thomson Publishers, New Delhi.
- K. Aswathappa (2012) International Human Resource Management, McGraw Hill, New Delhi.

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- Monir H. Tayeb (2004), International Human Resource Management A Multinational Company Perspective, Oxford University Press, New Delhi
- Anne-Wil Harzing and Joris Van Ruysseveldt (1995), International Human Resource Management, SAGE Publications, New Delhi.
- Ian Beardwell and Len Holdon (2001), HRM: A Contemporary Perspective, McMillan, New Delhi.

MBA 934-18 Strategic Human Resource Management

Course Objective: The aim of this course is to help students to understanding the strategic approach to human resources as distinguished from the traditional functional approach, understanding the relationship of HR strategy with overall corporate strategy, strategic role of specific HR systems and appreciating SHRM in the context of changing form of organizations in the global environment.

Course Outcomes:

Upon completion of this course, students will be able to:

- CO1: Understand an integrated approach to the development of HR strategies that enable the organization to achieve its goals.
- CO2: Describe the process of strategic HRM.
- CO3: Discuss the strategic role of HR systems such as strategic staffing, strategic appraisal, strategic reward system etc.
- CO4: Explain various human aspects of strategy implementation.
- CO5: Identify the role of leadership in implementing strategic change.
- CO6: Understand Global HRM and role of global HRM in successful implementation of MNC strategy

Unit-I

Strategic HRM: Introduction to business and corporate strategies; Integrating HR strategies with

business strategies, Analyzing HR Practices followed by different firms-Human Resource System-HR as a Strategic Partner. Strategic HRM: Scope and process of strategic HRM, traditional vs. strategic HR, typology of HR activities, best fit approach vs best practice approach, the role of national context, sectoral context and organizational context in HR strategy and practices, external and internal analysis for strategic HR management.

Unit -II

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Strategic role of HR systems - Strategic staffing, strategic appraisal, strategic executive appraisal, strategic design of reward system, performance management strategies, integrating HR strategy and business strategy, HR strategies and practices in Indian industries and service sector, HR as distinctive competitive advantage, reward and compensation strategies, retrenchment strategies, downsizing strategies. Human Resource Environment- Technology, structure; Workforce diversity; Demographic changes, Temporary & contract labour; Recruitment & Retention strategies, training & development strategies.

Unit-III

Human aspects of strategy implementation: behavioural issues in strategic implementation - matching culture with strategy, leadership factor in strategy and implementing strategic change, HR strategy evaluation and control, IT and future directions in HR strategy, HR strategy in workforce diversity, employee engagement strategies, talent management and retention strategies

Unit-IV

Global HRM: Role of global HRM in successful MNC strategy, HR planning for global demand and diversity at workplace, global staffing approaches - polycentric, ethnocentric, geocentric and region centric, recruitment and selection of human resources for global assignments, training and development imperatives for global workforce, expatriate problems and culture shock, repatriation issues, performance and compensation management for global workforce, global employee relations.

Note: Relevant Case Studies should be discussed in class.

Suggested Readings:

- 1. Dreher, Dougherty, G.F. & Thomas, W. (2005) Human Resource Strategy, Tata McGraw Hill.
- 2. Agarwal, Tanuja, (2007), "Strategic Human Resource Management", Oxford University Press, New Delhi.
- 3. Armstrong, M. & Baron, A. (2002) Handbook of Strategic HRM The Key to Improved Business Performance, Jaico Publishing House.
- 4. Becker, B.E.(2001) The HR Scorecard: Linking People, Strategy & Performance, Harward Bussiness School Press.
- 5. Greer, C.R.(2001) Strategic Human Resource Management: A General Managerial Approach, Pearson Education Asia.
- 6. Holbeche, L.(2009) Aligning Human Resource and Business Strategy, Butterworth Heinemann.
- 7. Salaman, G.(2005) Strategic Human Resource Management Theory and Practice, Sage Publications Ltd.

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MBA 935-18 Leadership and Team Dynamics

Course Objective: This course is designed to be an interactive exploration of team dynamics and leadership. Through the introduction of current theories and models, students will learn to work effectively in groups, increase their understanding of leadership, make effective decisions, and stimulate the development of new skills through demonstration and practice.

Course Outcomes:

CO1: Understand the history of leadership and current leadership theories.

CO2: Explain how leadership models are put into practice personally, locally, and globally.

CO3: Discuss the knowledge of developing leadership abilities.

CO3: Describe the concept of Strategic Leadership and ethical leadership.

CO4: Explain composition, formation, and development of teams.

CO6: Illustrate the dynamics of team Performance and motivation and the role of leadership in dynamics of team management and decision making.

Unit-I

Leadership: Meaning, definitions, Skills and Roles of a leader, analysis of leadership theory; Leadership traits and ethics: Personality traits and leadership, Leadership attitudes, ethical leadership, Leadership behavior and motivation, contingency leadership. Understanding the inspiration, dilemmas and issues in becoming a leader.

Unit-II

Leadership theories and styles, charismatic and transformational leadership, team leadership, organizational Leadership, strategic leadership, Leadership for Creating high performance culture, Leadership development through self-awareness and self-discipline, Development through education, experience and mentoring, Succession, Evaluation of leadership development efforts, leadership communication.

Unit-III

Strategic leadership, ethical leadership, the leader as social architectereating vision and strategic direction, shaping culture and values, designing and leading a learning

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organisation, leading change, spiritual foundations of personal effectiveness, the habits of highly effective people.

Unit-IV

Team composition, formation, and development-Team Performance and Motivation-Team Conflict and Leadership-Team Decision Making , Discovering the interpersonal orientation through FIRO-B. Experiential learning methodologies-T- group sensitivity training, encounter groups, appreciative enquiry, Discovering facets of interpersonal trust through Johari window, communication skills, Negotiation skills and strategies for team building, , team morale, conflict resolution in teams, competitive vs collaborative behavior, developing collaboration.

Note: Relevant Case Studies should be discussed in class.

Suggested Readings: -

- 1. Richard L.Hughes (2018), Leadership, McGraw-Hill. ed. 8
- 2. Bass, B.M. (1973) Leadership, Psychology and Organizational Behaviour, Greenwood Pub Group.
- 3. Northouse, P.G.(2018) Leadership Theory and Practice, Sage Publications.
- 4. Purohit, S. & Nayak, S. (2003) Enhancing Personal Effectiveness: Training Instruments for Students, Teachers and Parents, Tata McGraw-Hill.
- 5. Tannenbaum, R., Weschler, I.R. and Hansen, J. (2015) Leadership and Organization: A Behavioral Science Approach, McGraw-Hill.

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MBA 936-18 PERFORMANCE AND COMPENSATION MANAGEMENT

Course Objective: The objective of the course is to impart relevant knowledge required to perform the functions of human resource planning in an organisation and equipping seekers with comprehensive and practical skills to manage employees' performance effectively, and to understand the structure and components of wages and salaries, and the wage administration in India

Course Outcomes: After completing the course, the student shall be able to:

CO1: Increase the awareness of the process and principles of performance Management / appraisal.

CO2: Identify the negative aspects of appraisal systems and consider how these might be overcome.

CO3: Discuss performance with regard to pay awards, and whether these should, or should not be automatically related to each other.

CO4: Demonstrate a familiarity with the appeal process relating specifically to the performance review.

CO5: Illustrate different ways to strengthen the pay-for-performance link and also learn the concepts of Payment and employee benefits issues for contingent workers.

CO6: Develop appropriate reward and compensation policies.

Unit -I

Performance Management - Performance management system, performance counseling, performance planning, performance appraisal, potential appraisal, problems and errors in performance appraisal. Performance monitoring, performance implementation, role of HR professionals in performance management, performance management through training and development, ethics in performance management.

Unit -II

Reviewing & Managing Performance-Performance Management and strategic planning, Alternative models for Assessing Performance-Balance score card; EFQM Model; Outcome metrics—Economic Value Added (EVA); other economic measures. Building a High-Performance Culture-Performance Management & Employee Development, Performance Management and Rewards-Ethics in Performance Management.

Unit -III

Compensation and Benefits Management: Job evaluation approach to compensation management- Bonuses- concept & methods of calculation-Pay for performance,



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competency-based pay, equity based rewards, team rewards-Reward strategy & psychological contract-Law relating to compensation-Executive compensation, Benefits administration, employee welfare and working conditions-statutory and voluntary measures.

Unit-IV

Executive compensation - Components, pay structure in India, linking salary with potential and performance, types of rewards and incentives, wage incentive schemes in India, wage incentive plans, employee benefits and services, special features of fringe benefits, benefit programmes for management and other employees, administration of benefits and services, recent trends in wages and salaries in Indian industries and service sector.

Note: Relevant Case Studies should be discussed in class.

Suggested Readings: -

1. George T. Milkovich (2009), Compensation, McGraw-Hill Ryerson.

 Goel, D. (2012) Performance Appraisal and Compensation Management: A Modern Approach, Prentice Hall of India Pvt. Ltd.

 Henderson, R.I. (2006) Compensation Management in a Knowledge Based World, Prentice Hall.

4. Henderson, R.I.(1985) Compensation Management: Rewarding Performance in the Modern Organisation, Reston Publishing Co.

5. Kandula, S.R.(2006) Performance Management: Strategies, Interventions, Drivers, Prentice Hall of India.

 Marshall, D.R.(1978) Successful Techniques for Solving Employee Compensation Problems, John Wiley & Sons.

7. Patten, T. H.(1977) Pay-Employee Compensation and Incentive plans, McGraw-Hill.

8. Rock, M. L. and Berger, L.A. (2015) Compensation Handbook: A State-of-the Art Guide Compensation Strategy and Design, McGraw-Hill.

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MB 943 - 18: Managing Software Projects

Objective: The objective of this paper is to acquaint the students with major issues and techniques of Managing Software Projects. Understanding approaches for managing and optimizing the software development process and choosing an appropriate project development methodology (e.g. waterfall, spiral, agile etc.). Applying efficient techniques for managing each phase of the systems development lifecycle

Course Outcomes: Upon completion of this course, students will be able to:

CO1: Understanding approaches for managing and optimizing the software development process

CO2: Examine contemporary software life cycle processes, activities and work products

CO3: Apply different methods to identify, analyze, and manage software project risks

CO4: Estimate software project effort, cost, and schedule for an intermediate size project

CO5: To make aware about the various software project teams in terms of roles and responsibilities and managers can plan their projects and minutely work out the cost and time overrun of projects.

Unit I

Software Development Process: Introduction to Software and Software Engineering; The Evolving Role of Software, Software: A Crisis on the Horizon and Software Myths, Software Engineering: A Layered Technology, Software Process Models, Water Fall Life Cycle Model, The Prototyping Model, The RAD Model, Evolutionary Process Models, Agile Process Model & Development, Component-Based Development, Product and Process. Choosing an appropriate Project Development Methodology.

Unit II

Managing Software Projects: Software Metrics (Process, Product and Project Metrics), Software Project Estimations, Software Project Planning, Project Scheduling & Tracking, Risk Analysis & Management (Risk Identification, Risk Projection, Risk Refinement and Risk Mitigation). Software Process Improvement and Project Management: Project planning infrastructure, process planning feasibility analysis cost and efforts estimation, models and technique.

Unit III

Software Quality Assurance and Management: Quality Concepts and Software Quality Assurance, Software Reviews (Formal Technical Reviews), Software Reliability, The



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Quality Standards: ISO 9000, CMM, Six Sigma for SE, SQA Plan, SCM activities and Project Management Plan.

Unit IV

Project management for special classes of software project: Component-Based Software Engineering, Client/Server Software Engineering, Web Engineering, Reengineering, Computer-Aided Software Engineering (CASE), Software Process Improvement, Outsourcing and Software Project Management Standards

Note: Relevant Case Studies should be discussed in class.

Suggested Readings:

- Pankaj Jalote, "Software Project Management in Practice" Pearson publication
- Andrew Stellman and Jennifer Greene, "Applied Software Project Management", O'Reilly Media (2005).
- Hughes and cotterell, software project management, Tata McGraw-Hill Publication
- Pankaj Jalote, "CMM in practice", Pearson Publication
- Pankaj Jalote, "An Integrated Approach to Software Engineering", Narosa Publishing House
- R. Pressmen, "Software Engineering", McGraw Hill Publication

Ian Somerville, Software Engineering, Pearson Rublication

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MB 944 - 18: Managing Digital Innovation and Transformation

Objective: The objective of this paper is to acquaint the students with introduction to digital transformations and innovation and build Digital Capabilities.

Course Outcomes: Upon completion of this course, students will be able to:

CO1: Identify how Digital Transformation impacts corporate strategies

CO2: Understand Security Issues in Digital Transformations

CO3: Understand the risk associated with evolving international clients and environment

CO4: To learn Security Issues, Methods & Laws

CO5: Understanding cloud computing

Unit I

Digital transformation & Capabilities: Digital transformation myths and realities. Various Types of digital transformations: Legacy transformation, strategic transformation, cloud first transformation, digital enterprise natives, and disruption embracers. Digitization and essential elements. Digital Disruption, Important causes of digital disruption and transformation. Digital Capabilities and Challenges going to digital transformation, Social media transformation and its benefits & threats. Types of social media and its impact on the business. Role of Digital media in the enhancement of business development skills.

Unit II

Security Issues in Digital Transformations: Security Overview, Digital Threats, Fundamentals of Encryption & Cryptography, Securing E-commerce Networks: Security Protocols such as HTTP, SSL, Firewalls, Personal Firewalls, IDS, VPNs, Public Key Infrastructure (PKI) for Security

Unit III

Security Issues, Methods & Laws: Digital Signature: Digital signature Certificate; Certifying Authorities and liabilities in the event of Digital Signature Compromise; E-Governance in India. Introduction To Information Technology Act, 2000: Object; Scope; Scheme of the Act; Relevancy With Other Laws.

Unit IV

Digital Transformation Framework: Understanding cloud architecture, cloud computing vs peer- to peer architecture, cloud computing vs grid computing, cloud computing vs client server architecture, broad approaches to migrating into the cloud, seven step model

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of migration into a cloud, components of cloud computing, cloud types- private, public and hybrid; Models of Cloud Computing. Mobile cloud & Understanding cloud security

Note: Relevant Case Studies should be discussed in class. Suggested Readings:

- Neil Perkin, "Building the Agile Business through Digital Transformation"
- · Oberoi, Sundeep, "e-Security and You", Tata McGraw-Hill,
- · Kannamal, Fundamentals of Cloud Computing, Cengage Learning
- · Cady, G H and Part McGreger, "The Internet", BPB Pub.
- Carpenter Phil, "e Brands", HBS Press, Boston, 2000
- Jayaswal, Cloud Computing Black Book. Wiley

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MB 945-18: IT Consulting

Objective: The objective of this paper is to acquaint the students with role of IT Consulting in Business Processes. It shall enable them to understand Consulting Life Cycle, Consulting Projects, Service Level Agreements (SLA) and Ethics in Consulting.

Course Outcomes: Upon completion of this course, students will be able to understand:

CO1: To analyze the IT requirements of the organization and the underlying environment.

CO2: To advise IT solutions and services based on requirements.

CO3: To understand RFP Analysis.

CO4: To provide an understanding about SLA.

CO5: To familiar with ethics in consulting.

Unit I: Principles of Consultancy

Overview and principles of consultancy, role & competencies of the consultants;

Consultancy models; Technology Management; Technology Life Cycles.

Unit II: Life Cycle of Consultancy Assignment

The Life Cycle of a consultancy Assignment: Gaining entry, Contracting and assignment initiation, Identification of problems and business needs, Diagnosis and solution definition, Solution appraisal and evaluation, Implementation and taking action. Life Cycle Assessment (LCA): Evolution, Stages in product LCA. Code of good conduct for LCA.

Unit III: Request For Proposal

Request For Proposal (RFP): Introduction, Scope of Work, Proposal Requirements, Process for Proposal Preparation and Submission, Proposal Review/Evaluation/Selection, Rules, Optional/Possible Appendices.

Service Level Agreements (SLA): Introduction, Importance, Preparation, Components of SLA. SLA Monitoring and Verification. SLA metrics, Periodic review,

Unit IV

Principles for Ethical Consulting, Different approaches to Ethic, Codes of Ethics, Consultant's Unethical and Avoiding Behaviors. Business Ethics, International business ethics, Ethics and Self-Interest, Responsibility and Accountability

Note: Relevant Case Studies should be discussed in class.

Suggested Readings:

 Narayanan, V K. Managing Technology and Innovation for Competitive Advantage. 3rd Edition, Pearson Education.



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- Peter F. Drucker, 'Social Needs and Business Opportunities', in The Frontiers of Management, 1986
- Title: The Trusted Advisor Author: David Maister, Charles Green, Robert Gallford Publisher: Free Press (Simon and Schuster) Publication Date: 2002 ISBN: 978-0743207768

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MB 946 - 18: Strategic Management of IT

Objective: The objective of this paper is to acquaint the students with the value of IT in strategic management and its processes. This course is designed to explore an organisation's vision, mission, examine principles, techniques and models of organisational and environmental analysis, discuss the theory and practice of strategy formulation and implementation such as corporate governance and business ethics for the development of effective strategic leadership through the use of IT.

Course Outcomes: Upon completion of this course, students will be able to:

- CO1: To develop an understanding of strategic management concepts and techniques and acquire the ability to apply the same in business situations
- CO2: Learning how to use IT as a tool to implement business strategies and gain competitive advantage, not merely to support business operations.
- CO3: In addition to familiarizing students with new technological changes in management, students are expected to integrate and apply their prior learning to strategic decision making in organisations
- CO4: Integrate and apply knowledge gained in basic courses to the formulation and implementation of strategy from holistic and multi-functional perspectives.
- CO5: Analyze and evaluate critically real life company situations and develop creative solutions, using a strategic management perspective.

Unit I

Strategic Management: Role of IT and IS in Business. Introduction to Executive Support System (ESS) Importance of Decision-Making Systems in the Business Organization Structure. Planning for IT support. Types of Strategic Management Planning: The Ad Doc Approach, The Data Collection Approach, The Organization Chart Approach, The Top-down Approach and The Bottom-up Approach; Comparison of Top-Down and Bottom-up approach. Process for Strategic Management Approaches and Planning for Strategic IT Applications. Selecting the best approach and the factors playing pivotal roles in it.

Unit II

Strategic Management as Competitive Advantage: Introduction to Value Chain and Porter's Value Chain (Value Chain Model); Understanding the concept of Value Chain Analysis and the Competitive Advantage of it to the business/organization. Value Chain



I.K.G. Punjab Technical University MBA Batch 2018 onwards

Analysis and its advantages. Understanding Linkages and Interrelationships: Approach to IS/IT Strategy Formulation.

Unit III

Turning technology into business transformation. IT as a strategic source. IT as competitive: strategy, advantage and resource. Risks of Using IT Strategically; Interorganizational systems (IOS): Advantages and opportunities in strategic IT Applications. IOS and Competitive Advantage; Strategic Grid: Organizational movements around the Strategic Grid.

Unit IV

Fundamental characteristics of industrial dynamics of strategic management and IT. Visioning of the strategic role of IT in the organization. Diversification of strategies: Digital transformation, success factors and implications. Factors for organizations shifting to digital and AI transformations.

Note: Relevant Case Studies should be discussed in class.

Suggested Readings:

- S.A. Kelkar, "Strategic IT Management: A Concise Study", PHI, Eastern Economy Edition
- Sanjiva Shankar Dubey, "IT Strategy and Management", Third Edition, PHI (EEE)
- J. David Hunger, Thomas L. Wheelen, "Essentials of Strategic Management",
 5th Edition, Prentice Hall
- · L. M. Prasad, "Strategic Management", 5th Edition, Sultan Chand & Sons
- Osterhage Wolfgang W., "IT Quality Management", Springer, 2016
- Rogers David L., "The Digital Transformation Playbook", Columbia Business School Publishing, 2016

I.K.G. Punjab Technical University MBA Batch 2018 onwards MBA 403-18 Workshop on Indian Ethos

Course Objective: The course is an attempt for the students to learn about how to apply the concepts and theories of ancient Indian management in business.

Courses Outcomes:

CO1: Comprehend and practice Indian Ethos and values system.

CO2: Applying value based management and ethical practices in business.

CO3: To gain the knowledge of management principles from Vedas and other holy books and explain the application of Indian heritage in business.

CO4: To comprehend various stress management techniques and their applications in organizations.

CO5: To describe salient features and advantages of ancient Indian system of learning. CO6: To describe various laws of Karma and explain the concept of corporate karma.

Unit 1

Indian Ethos: History & Relevance, Principles Practiced by Indian Companies, Role of Indian Ethos in Managerial Practices.

Management Lessons from Vedas, Mahabharata, Bible, Quran, Kautilya's Arthashastra, Indian Heritage in Business, Management-Production and Consumption. Ethics v/s Ethos, Indian v/s Western Management.

Unit 2

Work Ethos: Meaning, levels, dimensions and steps.

Values: Values for Indian Managers, Relevance of Value Based Management in Global Change, Impact of Values on Stakeholders. Trans-Cultural Human Values, Secular v/s Spiritual Values, Value System in Work Culture.

Unit 3

Stress Management: Meaning, types of stress at work, causes of stress, consequences of stress.

Techniques for Managing Stress: Meditation: Meaning, advantages for mental health and its importance in management. Brain storming, brain stilling, Yoga: Meaning, Significance.

Contemporary Approaches to Leadership- Joint Hindu Family Business-Leadership Qualities of Karta.

Unit 4

Indian Systems of Learning- Gurukul System of Learning, Advantages- Disadvantages of Karma, importance of Karma to Managers, Nishkama Karma. Laws of Karma: Law of Creation, Law of Humility, Law of Growth, Law of Responsibility, Law of Connection.

Corporate Karma: Meaning, methodologies, guidelines for good corporate karma.



I.K.G. Punjab Technical University MBA Batch 2018 onwards

Suggested Readings: -

- 1. N M Khandelwal- Indian Ethos & Values for Management- Himalya Publishing.
- 2. Tushar Agrawal and Nidhi Chandorkar- Indian Ethos in Management- Himalya Publishing.
- 3. Chakraborty, S.K., Ethics in Management-Vedantic Approach, New Delhi, Oxford India Ltd. 1995.
- 4. Dwijendra Tripathi, History of Indian Business by Publisher, Oxford University Press India, 2004.
- 5. Fernando A.C., Business Ethics: An Indian Perspective, Pearson, 2009.
- 6. Habib Irfan, The Cambridge Economic History of India, Volume 1 Cambridge University Press, 1982.
- 7. Jitatmananda Swami, Indian Ethos for Management, Rajkot, Ramakrishna Ashrama, 1996.
- 8. Kautilya's Arthasastra, King, Governance, and Law in Ancient India, Oxford University Press, 2016.



Study Scheme & Syllabus of Bachelor of Business Administration (BBA) Batch 2018 onwards

Department of Academics
I.K. Gujral Punjab Technical University

LK. Gujral Punjab Technical University, Jalandhar Kapurthala

62835/2021/IKGPTU Main Campus Courses & Examination Scheme:

First Semester

Course	Course Type	Course Title	Load	Alloca	tions	Marks D	is tribution	Total	Credits
Code			L*	T*	P	Internal	External	Marks	
BBA 101-18	Core Theory 1	Principles and Practices of Management	5	1	0	40	60	100	6
BBA 102-18	Core Theory 2	Basic Accounting	5	1	0	40	60	100	6
BBAGE101-18	General Elective 1	Managerial Economics I	5	1	0	40	60	100	6
BTHU103/18	Ability Enhancement Compulsory Course (AECC)	English		0	0	40	60	100	1 1 ×
BTHU104/18	Ability Enhancement Compulsory Course (AECC)	English Practical/Laboratory	0	0	2	30	20	50	1
HVPE101-18	Ability Enhancement Compulsory Course (AECC)	Human Values, De- addiction and Traffic Rules	3	0	0	40	60	100	3
HVPE102-18	Ability Enhancement Compulsory Course (AECC)	Human Values, De- addiction and Traffic Rules (Lab/ Seminar)	0	0	2	25	*k ¾	25	1
BMPD102-18		Mentoring and Professional Development	0	0	2	25		25	1
	TOTAL	•	19	3	6	280	320	600	25

**The Human Values, De-addiction and Traffic Rules (Lab/ Seminar) and Mentoring and Professional Development course will have internal evaluation only.

<u>Note:</u> One each seminar will be organized on Drug De-addiction and Traffic Rules. Eminent scholar and experts of the subject will be called for the seminar at least once during the semester. It will be binding for all students to attend the seminar.

Second Semester

Course	Course Type	Course Pitte	Load Allocations			Marks D	istribution	Total	Credits
Cocle		de Miller esta	L*	T*	Р	Internal	External	Marks	
BBA201-18	Core Theory 3	Business Statistics	5	Į.	0	40	60	100	6
BBA 202-18	Core Theory 4	Business Environment	5	1	0	40	60	100	6
BBAGE201-18	General Elective 2	Managerial Economics II	5	1	0	40	60	100	6
EVS102-18	Ability Enhancement Compulsory Course (AECC) -	Environmental Studies	2	0	0	40	60	100	2
BMPD202-18		Mentoring and Professional Development	0	0	2	25	**	25	JEHORO ILENAN J
化型:		TOTAL	17	3	2	195	240	425	21

Third Semester

Course Code	Course Type	Course Title	Louis	Alloe:	ations	Marle D	istribution	685 10 V 50 E 68 C 11	Credits
			L*	T*	P	Internal	External	Marks	
BBA301-18	Core Theory 5	Organizational Behaviour	5	1	0	40	60	100	6
BBA 302-18	Core Theory 6	Marketing Management	5	21	0	40	60	100	6
BBA 303-18	Core Theory 7	Cost & Management Accounting	Š	1	0	40	60	100	6
BBAGE 301-18	General Elective 3	Production and Operation Management	5	1	0	40	60	100	6
BBASEC 301-18	Skill Enhancement Course-1	IT tools for Business	2	0	0	40	60	100	2
BMPD302-18		Mentoring and Professional Development	0	0	2	25	**	25	1
	1	OTAL	22	4	2	225	300	525	27

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62835/2021/IKGPTU Main Campus Fourth Semester

Course Code	Course Type Course 1781	Course Fille	Loan Adjointions			Marks 1)	istroution 1944	Hotal Marks	Credits
			L*	T*	Р	Internal	External		
BBA401-18	Core Theory 8	Business Research Methods	5		0	40	60	100	6
BBA 402-18	Core Theory 9	Human Resource Management	5	1	0	40	60	100	6
BBA 403-18	Core Theory 10	Financial Management	5		0	40	60	100	6
BBAGE 401-18	General Elective 4	Entrepreneurship Development	5	1	0	40	60	100	6
BBASEC 401-18	Skill Enhancement Course-2	Business Ethics and Corporate Social Responsibility	2	0	0	40	60	100	2
BMPD402-18		Mentoring and Professional Development	0	0	2	25	**	25	
And the second s	1	OTAL	22	4	2	425	300	525	27

Fifth Semester

Course Code	Course Type	Course Tiffe	Load Allocations			Marks D	istellmition		Credits
Conc			L*	T*	P	Internal	External	Marks	
BBA501-18	Core Theory 11	Operation Research	5	1	0	40	60	100	6
BBA502-18	Core Theory 12	Mercantile Law	5		0	40	60	100	6
	Discipline Specific Elective I	Elective – I	5	1	0	40	60	100	6
	Discipline Specific Elective 2	Elective — II	5	1	0	40	60	100	6
BMPD502-18		Mentoring and Professional Development	0	0	2	25	_***	25	1
		TOTAL	20	4	2	225	240	425	25

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SPECIALISATIONS

Any of the following groups each having two papers in Semester V can be chosen as specialization by the students.

1. Marketing

BBA 511-18	Consumer Behaviour
BBA 512-18	Advertising and Sales Management

2. Finance

BBA 521-18	Corporate Accounting
BBA 522-18	Financial Markets & Services

3. Human Resource Management

J. Human	Resource management
BBA 531-18	Industrial Relations & Labour Law
BBA 532-18	Organisation Change & Development

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62835/2021/IKGPTU Main Campus Sixth Semester

Course Code	Course Type	Course Tide	Course Tide Load			Warks Distribution		Total Marks	Credits
			L*	T*	P	Internal	External	WINTES	
BBA601-18	Core Theory 13	Strategy Management	5	1	0	40	60	100	6
BBA602-18	Core Theory 14	Company Law	5		0	40	60	100	6
	Discipline Specific Elective 3	Elective – III	5	1	0	40	60	100	6
	Discipline Specific Elective 4	Elective – IV	5	1	0	40	60	100	6
BMPD602-18		Mentoring and Professional Development	0	0	2	25	**	25	1
		TOTAL	20	4	2	185	240	425	25

SPECIALISATIONS:

Any of the following groups each having two papers in Semester VI can be chosen as specialization by the students.

1. Marketing

BBA 611-18	Services Marketing
BBA 612-18	Retailing and Logistics Management

2. Finance

BBA 621-18	Personal Financial Planning
BBA 622-18	Direct and Indirect Tax Laws

3. Human Resource Management

BBA-631	Training & Development
BBA-632	Cross Cultural Human Resource Management



Program Educational Objectives (PEOs)

PEO1: Graduates will develop expertise in the area of accounts, marketing, interpersonal skills, human resource management and entrepreneurship.

PEO2: Graduates will develop competencies in qualitative and quantitative techniques to analyse the business data.

PEO3: Graduates will develop an understanding of economic, legal and social environment of Indian business.

PEO4: Graduates will develop responsiveness to social issues and will be able to identify business solutions to address the same. They will also be able to understand the issues of business ethics.

Program Outcomes (POs)

At the end of the program the student will be able to:

PO1: Evaluate and describe contextual forces (macro and micro both) in business environment and identify their impact on business operations.

PO2: Recognise and apply various qualitative, technical and analytical methods in solving business problems.

PO3: Communicate effectively in various business settings both in written and oral formats.

PO4: Explain the responsibility of business towards development of society. Students will also be able to distinguish between ethical and unethical behaviours.

PO5: Develop strategies for effective functioning of functional areas such as marketing, strategy, finance and operations.

PO6: Apply the entrepreneurial and managerial skills for effective business management.

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BBA 101 Principles and Practices of Management

Course objective: the course aims at providing fundamental knowledge and exposure to the concepts, theories and practices in the field of management. And to facilitate the students in appreciating need/significance and applications of various managerial functions.

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1: Describe fundamental concepts, nature and principles of Management.

CO2: Explain the role and responsibilities of managers and adapt to the various styles of management across organizations.

CO3: Develop analytical abilities to face the business situations.

CO4: Apply various tools that would facilitate the decision making process in the business.

CO5: Develop peer based learning and working in groups and teams.

Unit - I

Management: Meaning, definitions, nature and scope, functions of management. Managerial roles and skills. Forms of different organizations: sole proprietorship, partnership and Joint Stock Company.

Evolution of management thoughts: classical and new classical systems, contingency approaches, Scientific management.

Unit - II

Planning: nature, purpose and functions, types of plan, Management by Objective (MBO), steps in planning.

Decision Making: Meaning, Steps in Decision Making, Techniques of Decision Making.

Strategic planning – concepts, process, importance and limitations; Growth strategies-Internal and external.

Unit - III

Organizing: Concept, formal and informal organizations, task force, bases of departmentation, different forms of organizational structures, avoiding organizational inflexibility. Teamwork – meaning, types and stages of team building.

Concept of staffing- Recruitment and Selection.

Motivation - concept, importance and theories.

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Unit -IV

Authority: definition, types, responsibility and accountability, delegation, decentralization v/s centralization, determinants of effective decentralization. Line and staff authority.

Control: function, process and types of control, nature, process, significance and span of control. Direct control v/s preventive control.

Trends and challenges of management in global scenario, emerging issues in management: Introduction to Total Quality Management (TQM), Just in Time (JIT).

Suggested Textbooks:

- Principles and practices of management: L. M. PRASAD (S. Chand publishers)
- Essentials of Management: Koontz H. & Weihrich H. (Tata Mc Graw Hill Publishers)

Suggested Reference books

- Management: Stephen Robbins (Pearson publishers)
- VSP Rao & V H Krishna, Management, Excel books

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BBA 102 BASIC ACCOUNTING

Course Objective: This course aims to acquaint students with foundation of financial accountancy and its application in business. It also aims to familiarize students with regulatory framework of accounting in India.

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1: To understand the basic underlying concepts, principles and conventions of accounting.

CO2: To identify the rules of debit and credit in accounting.

CO3: To get an overview of the regulatory framework of accounting in India.

CO4: To prepare trading, profit & loss and balance sheet of a firm.

CO5: To comprehend the concept of depreciation and different methods to treat depreciation in accounting.

Unit I

Introduction to Accounting- Meaning, objectives and Scope of Financial Accounting, Concept of Book Keeping, Basic Accounting terms, users of accounting information, limitations of Financial Accounting. Accounting Concepts and Conventions.

Accounting Standards- Concept, objectives, benefits, brief review of Accounting Standards in India.

Unit II

The Accounting Equation; Types and Nature of Accounts, Rules of Debit and Credit; Accounting process: Recording Transactions in Journal; Preparation of Ledger Accounts, Subsidiary Books; Preparation of Trial Balance.

Unit III

Bank Reconciliation Statement, Depreciation: Meaning, need & importance of depreciation, methods of charging depreciation (WDV & SLM). Preparation of Final Accounts: Preparation of Trading and Profit & Loss Account and Balance Sheet of sole proprietary business

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Unit IV

Introduction to Company Final Accounts: Important provisions of Companies Act, 1956 in respect of preparation of final accounts of a company. Understanding the Annual Report of a Company.

Computerised Accounting: Computers and its application in accounting. Accounting software packages

Suggested Readings:

- 1. Maheshwari, S.N. and Maheshwari, S.K, "Financial Accounting", 2009, Vikas Publishing House, New Delhi.
- 2. Mukherjee, A. and Hanif, M., "Financial Accounting", 1st Edition, 2003, Tata McGraw Hill.
- 3. Ramchandran, N. and Kakani, R.K., "Financial Accounting for Management", 2nd Edition, 2007, Tata McGraw Hill.
- 4. Tulsian, P.C., Financial Accounting,
- 5. Horngren, Charles T., Sundem, Gart 1, Elliot, John A. Philbrick, Donna R.,
- 6. "Introduction to Financial Accounting", Prentice Hall, New Delhi.
- 7. Gupta, Ambrish, "Financial Accounting for Management: An Analytical Perspective", Pearson Education, New Delhi.
- 8. Khatri, Dhanesh, "Financial Accounting" Tata McGraw-Hill, New Delhi.

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BBA-GE 101 Managerial Economics-I

Course Objective: The primary objective of this course is to equip students with the necessary economic concepts, principles, theory and techniques and enhance their managerial decision making to address business problems in a globalized economic environment

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1: Understand the basic concepts of managerial economics and apply the economic way of thinking to individual decisions and business decisions.

CO2: Measure price elasticity of demand, understand the determinants of elasticity and apply the concepts of price, cross and income elasticity of demand.

CO3: Understand and estimate production function and Law of Diminishing Marginal Utility.

CO4: Understand and explain four basic market models of perfect competition, monopoly, monopolistic competition, and oligopoly, and how price and quantity are determined in each model.

CO5: Understand the different costs of production and how they affect short and long run decisions.

Unit-I

Introduction to Managerial Economics: Managerial Economics: Meaning, Nature, Scope & Relationship with other disciplines, Role of managerial economics in decision Making, Opportunity Cost Principle, Production Possibility Curve, Incremental Concept, Scarcity Concept.

Demand and the Firm: Demand and its Determination: Demand function; Determinants of demand; Demand elasticity – Price, Income and cross elasticity. Use of elasticity for analyzing demand, Demand estimation, Demand forecasting, Demand forecasting of new product. **Indifference Curve Analysis:** Meaning, Assumptions, Properties, Consumer Equilibrium, Importance of Indifference Analysis, Limitations of Indifference Theory

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Unit-II

Production Function: Production function Meaning, Concept of productivity and technology, Short Run and long run production function Isoquants; Least cost combination of inputs, Producer's equilibrium; Return to scale; Estimation of production function.

Theory of Cost: Cost Concepts and Determinants of cost, short run and long run cost theory,

Modern Theory of Cost, Relationship between cost and production function

Unit-III

Revenue Curve: Concept of Revenue, Different Types of Revenues, concept and shapes of Total Revenue, Average revenue and marginal revenue, Relationship between Total Revenue, Average revenue and marginal revenue, Elasticity of Demand and Revenue relation

Market Structure: Market Structure: Meaning, Assumptions and Equilibrium of Perfect Competition, Monopoly, Monopolistic Competition, Oligopoly: Price and output determination under collusive oligopoly, Price and output determination under non-collusive oligopoly, Price leadership model.

Unit-IV

Pricing: Pricing practices; Commodity Pricing: Economics of advertisement costs; Types of pricing practices

Factor Pricing: Demand and supply of factor of production; Collective bargaining, Concept of rent, profit, interest- Rate of return and interest rates; Real vs. Nominal interest rates. Basic capital theory—Interest rate and return on capital. Measurement of profit.

Note: Relevant Case Studies will be discussed in class.

Suggested Readings/ Books:

- > K.K. Dewett, Modern Economic Theory, S. Chand Publication
- D.M.Mithani, Managerial Economics Theory and Applications, Himalaya Publication
- Peterson and Lewis, Managerial Economic, Prentice Hall of India
- Gupta, Managerial Economics, TataMcGraw Hills
- ➤ Geetika, Managerial Economics, Tata McGraw Hills
- D.N.Dwivedi, Managerial Economic, Vikas Publications
- > Froeb, Managerial Economics, Cengage Learning



- Koutsoyiannis, A, Modern Micro Economics, Palgrave Macmillan Publishers, New Delhi.
- ➤ Thomas Christopher R., and Maurice S. Charles, Managerial Economics Concepts and Applications, 8th Edition,
- Mehta, P. L, Managerial Economics Analysis, Problems and Cases, Sultan Chand & Sons, Delhi.
- Peterson and Lewis, Managerial Economics, 4th Edition, Prentice Hall of India Pvt. Ltd., New Delhi.
- > Shapiro, Macro Economics, Galgotia Publications.
- H. L Ahuja Advanced Economic Analysis, S. Chand & Co. Ltd, New Delhi. 7.
- G.S Gupta, Managerial Economics, Tata McGraw Hill.

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AECC BTHU103/18 English

Course Outcomes:

- The objective of this course is to introduce students to the theory, fundamentals and tools of communication.
- To help the students become the independent users of English language.
- To develop in them vital communication skills which are integral to their personal, social and professional interactions.
- The syllabus shall address the issues relating to the Language of communication.
- Students will become proficient in professional communication such as interviews, group discussions, office environments, important reading skills as well as writing skills such as report writing, note taking etc.

The recommended readings given at the end are only suggestive; the students and teachers have the freedom to consult other materials on various units/topics given below. Similarly, the questions in the examination will be aimed towards assessing the skills learnt by the students rather than the textual content of the recommended books.

Detailed Contents:

Unit1-1 (Introduction)

- Theory of Communication
- · Types and modes of Communication

Unit-2 (Language of Communication)

- Verbal and Non-verbal
- (Spoken and Written)
- · Personal, Social and Business
- · Barriers and Strategies
- Intra-personal, Inter-personal and Group communication

Unit-3 (Reading and Understanding)

- Close Reading
- Comprehension
- · Summary Paraphrasing
- Analysis and Interpretation
- Translation(from Hindi/Punjabi to English and vice-versa)
 OR
- Precis writing /Paraphrasing (for International Students)
- Literary/Knowledge Texts

Unit-4 (Writing Skills)

- Documenting
- Report Writing
- Making notes
- Letter writing

Recommended Readings:

1. Fluency in English - Part II, Oxford University Press, 2006.

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- 2. Business English, Pearson, 2008.
- 3. Language, Literature and Creativity, Orient Blackswan, 2013.
- 4. Language through Literature (forthcoming) ed. Dr. Gauri Mishra, DrRanjanaKaul, DrBrati Biswas
- 5. On Writing Well. William Zinsser. Harper Resource Book. 2001
- 6. Study Writing. Liz Hamp-Lyons and Ben Heasly. Cambridge University Press. 2006.

AECC

BTHU104/18 English Practical/Laboratory

Course Outcomes:

- The objective of this course is to introduce students to the theory, fundamentals and tools of communication.
- To help the students become the independent users of English language.
- To develop in them vital communication skills which are integral to personal, social and professional interactions.
- The syllabus shall address the issues relating to the Language of communication.
- Students will become proficient in professional communication such as interviews, group discussions and business office environments, important reading skills as well as writing skills such as report writing, note taking etc.

The recommended readings given at the end are only suggestive; the students and teachers have the freedom to consult other materials on various units/topics given below. Similarly, the questions in the examination will be aimed towards assessing the skills learnt by the students rather than the textual content of the recommended books.

Interactive practice sessions in Language Lab on Oral Communication

- Listening Comprehension
- Self Introduction, Group Discussion and Role Play
- Common Everyday Situations: Conversations and Dialogues
- Communication at Workplace
- Interviews
- Formal Presentations
- Monologue
- Effective Communication/ Mis- Communication
- Public Speaking

Recommended Readings:

- 1. Fluency in English Part II, Oxford University Press, 2006.
- 2. Business English, Pearson, 2008.
- 3. Practical English Usage. Michael Swan. OUP. 1995.
- 4. Communication Skills. Sanjay Kumar and PushpLata. Oxford University Press. 2011.
- 5. Exercises in Spoken English. Parts. I-III. CIEFL, Hyderabad. Oxford University

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AECC

HVPE 101-18 Human Values, De-addiction and Traffic Rules

Course Objective

This introductory course input is intended

- a. To help the students appreciate the essential complementarily between 'VALUES' and 'SKILLS' to ensure sustained happiness and prosperity which are the core aspirations of all human beings.
- b. To facilitate the development of a Holistic perspective among students towards life, profession and happiness, based on a correct understanding of the Human reality and the rest of Existence. Such a holistic perspective forms the basis of Value based living in a natural way.
- c. To highlight plausible implications of such a Holistic understanding in terms of ethical human conduct, trustful and mutually satisfying human behavior and mutually enriching interaction with Nature.

Thus, this course is intended to provide a much needed orientational input in Value Education to the young enquiring minds.

Course Methodology

- The methodology of this course is universally adaptable, involving a systematic and rational study of the human being vis-à-vis the rest of existence.
- · It is free from any dogma or value prescriptions.
- It is a process of self-investigation and self-exploration, and not of giving sermons.
 Whatever is found as truth or reality is stated as proposal and the students are
 facilitated to verify it in their own right based on their Natural Acceptance and
 Experiential Validation.
- This process of self-exploration takes the form of a dialogue between the teacher and the students to begin with, and within the student himself/herself finally.
- This self-exploration also enables them to evaluate their pre-conditionings and present beliefs.

Content for Lectures:

Module 1: Course Introduction - Need, Basic Guidelines, Content and Process for Value Education [6]

- 1. Understanding the need, basic guidelines, content and process for Value Education
- 2. Self Exploration-what is it? its content and process; 'Natural Acceptance' and Experiential Validation- as the mechanism for self exploration
- 3. Continuous Happiness and Prosperity- A look at basic Human Aspirations
- 4. Right understanding, Relationship and Physical Facilities- the basic requirements for fulfillment of aspirations of every human being with their correct priority
- 5. Understanding Happiness and Prosperity correctly- A critical appraisal of the current scenario
- 6. Method to fulfill the above human aspirations: understanding and living in harmony at various levels

Module 2: Understanding Harmony in the Human Being - Harmony in Myself! [6]

7. Understanding human being as a co-existence of the sentient 'I' and the material

8. Understanding the needs of Self ('I') and 'Body' - Sukh and Suvidha

9. Understanding the Body as an instrument of 'I' (I being the doer, seer and enjoyer)

10. Understanding the characteristics and activities of 'I' and harmony in 'I'

11. Understanding the harmony of I with the Body: Sanyam and Swasthya; correct appraisal of Physical needs, meaning of Prosperity in detail

12. Programs to ensure Sanyam and Swasthya

- Practice Exercises and Case Studies will be taken up in Practice Sessions.

Module 3: Understanding Harmony in the Family and Society- Harmony in Human-**Human Relationship**

[6]

13. Understanding harmony in the Family- the basic unit of human interaction

14. Understanding values in human-human relationship: meaning of Nyaya and program for its fulfillment to ensure Ubhay-tripti; Trust (Vishwas) and Respect (Samman) as the foundational values of relationship

15. Understanding the meaning of Vishwas; Difference between intention and competence

16. Understanding the meaning of Samman, Difference between respect and differentiation; the other salient values in relationship

17. Understanding the harmony in the society (society being an extension of family): Samadhan, Samridhi, Abhay, Sah-astitva as comprehensive Human Goals

18. Visualizing a universal harmonious order in society- Undivided Society (Akhand Samaj), Universal Order (Sarvabhaum Vyawastha) - from family to world family! - Practice Exercises and Case Studies will be taken up in Practice Sessions.

Module 4: Understanding Harmony in the Nature and Existence - Whole existence as Co-existence [4]

19. Understanding the harmony in the Nature

20. Interconnectedness and mutual fulfillment among the four orders of naturerecyclability and self-regulation in nature

21. Understanding Existence as Co-existence (Sah-astitva) of mutually interacting units in all-pervasive space

22. Holistic perception of harmony at all levels of existence

- Practice Exercises and Case Studies will be taken up in Practice Sessions.

Module 5: Implications of the above Holistic Understanding of Harmony on **Professional Ethics**

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23. Natural acceptance of human values

24. Definitiveness of Ethical Human Conduct

25. Basis for Humanistic Education, Humanistic Constitution and Humanistic Universal Order

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26. Competence in professional ethics:

- a) Ability to utilize the professional competence for augmenting universal human order,
- b) Ability to identify the scope and characteristics of people-friendly and ecofriendly production systems,
- c) Ability to identify and develop appropriate technologies and management patterns for above production systems.
- Case studies of typical holistic technologies, management models and production systems
- 28. Strategy for transition from the present state to Universal Human Order:
 - a) At the level of individual: as socially and ecologically responsible engineers, technologists and managers
 - b) At the level of society: as mutually enriching institutions and organizations

Text Book

R R Gaur, R Sangal, G P Bagaria, 2009, A Foundation Course in Value Education.

Reference Books

- 1. Ivan Illich, 1974, Energy & Equity, The Trinity Press, Worcester, and HarperCollins, USA
- 2. E.F. Schumacher, 1973, Small is Beautiful: a study of economics as if people mattered, Blond & Briggs, Britain.
- 3. A Nagraj, 1998, Jeevan Vidya ek Parichay, Divya Path Sansthan, Amarkantak.
- 4. Sussan George, 1976, How the Other Half Dies, Penguin Press. Reprinted 1986, 1991
- 5. PL Dhar, RR Gaur, 1990, Science and Humanism, Commonwealth Purblishers.
- 6. A.N. Tripathy, 2003, Human Values, New Age International Publishers.
- 7. Subhas Palekar, 2000, *How to practice Natural Farming*, Pracheen(Vaidik) Krishi Tantra Shodh, Amravati.
- 8. Donella H. Meadows, Dennis L. Meadows, Jorgen Randers, William W. Behrens III, 1972, *Limits to Growth Club of Rome's report*, Universe Books.
- 9. E G Seebauer & Robert L. Berry, 2000, Fundamentals of Ethics for Scientists & Engineers , Oxford University Press
- 10. M Govindrajran, S Natrajan & V.S. Senthil Kumar, *Engineering Ethics (including Human Values)*, Eastern Economy Edition, Prentice Hall of India Ltd.
- 11. B P Banerjee, 2005, Foundations of Ethics and Management, Excel Books.
- 12. B L Bajpai, 2004, *Indian Ethos and Modern Management*, New Royal Book Co., Lucknow. Reprinted 2008.

Relevant CDs, Movies, Documentaries & Other Literature:

1. Value Education website, http://uhv.ac.in

- 2. Story of Stuff, http://www.storyofstuff.com
- 3. Al Gore, An Inconvenient Truth, Paramount Classics, USA
- 4. Charlie Chaplin, Modern Times, United Artists, USA
- 5. IIT Delhi, Modern Technology the Untold Story

AECC HVPE 102-18 Human Values, De-addiction and Traffic Rules (Lab/Seminar)

One each seminar will be orgnizied on Drug De-addiction and Traffic Rules. Eminent scholar and experts of the subject will be called for the Seminar atleast once during the semester. It will be binding for all the students to attend the seminar

BMPD102-18 Mentoring and Professional Development

Guidelines regarding Mentoring and Professional Development

The objective of mentoring will be development of:

- Overall Personality
- Aptitude (Technical and General)
- General Awareness (Current Affairs and GK)
- · Communication Skills
- Presentation Skills

The course shall be split in two sections i.é. outdoor activities and class activities. For achieving the above, suggestive list of activities to be conducted are:

Part – A (Class Activities)

- 1. Expert and video lectures
- 2. Aptitude Test
- 3. Group Discussion
- 4. Quiz (General/Technical)
- 5. Presentations by the students
- 6. Team building Exercises

Part – B (Outdoor Activities)

- 1. Sports/NSS/NCC
- 2. Field project.
- Society Activities of various students chapter i.e. ISTE, SCIE, SAE, CSI, Cultural Club, etc.

Note: Evaluation shall be based on rubrics for Part – A & B.

Mentors/Faculty incharges shall maintain proper record student wise of each activity conducted and the same shall be submitted to the department.

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BBA 201-18 Business Statistics

Course Objective: Course Objective: The objective of the course on Business Statistics is to familiarize students with the basic statistical tools used to summarize and analyze quantitative information for decision making. Analysis of numbers is required for taking decisions related to every aspect of business.

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1: To learn the basic concepts like statistics and calculation of arithmetic mean, median and mode and partition values.

CO2: To understand the calculation of moments, skewness and kurtosis and determining whether the given distribution is normal or not.

CO3: To be acquainted with prerequisite knowledge required to understand the Probability and applications of probability theory.

CO4: To understand the concept of correlation regression analysis and their applications.

CO5: To apply the learnt techniques in statistical testing and their applications.

Unit I

Introduction to Statistics: Meaning, Definitions, Features of statistics, Importance, Functions, Scope and Limitations of Statistics.

Data Collection: Sources of Primary and Secondary data. Presentation of Data. Frequency distribution.

Sampling Concepts: Meaning of Population and Sample, Parameters and Statistics, Descriptive and Inferential Statistics, Probability and Non Probability Sampling Methods including Simple Random Sample, Stratified Sampling, Systemetic Sampling, Judgement Sampling and Convenience Sampling.

Unit II

Measures of Central Tendency: Mathematical averages including arithmetic mean, geometric mean and harmonic mean, properties and applications. Positional Averages: Mode and median (and other partition values including quartiles, deciles and percentile. Graphic presentation of measures of central tendency.

Measures of Variation: Absolute and relative measures. Range, quartile deviation, mean deviation, standard deviation and their coefficients. Properties of Standard Deviation and Variance.

Sampling Distribution: Concept of Sampling Distribution. Formulation of Sampling Distribution of Mean and Sampling distribution of statndard deviation/Variance.

Unit III

Simple Correlation Analysis: Meaning of Correlation, Simple, multiple and partial, linear and non linear correlation, correlation and causation, scatter diagram, pearson's correlation coefficient and Rank Correlation.

Simple Regression Analysis: Meaning of Regression, Principle of least square and regression analysis, Calculation of regression coefficient, properties of regression coefficient, Relationship between correlation and regression coefficient.

Unit IV

Theory of Probability: Meaning of Probility, Approaches to the calculation of probability, calculation of event probabilities, Addition and Multiplication, Laws of Probability (Proof not required), Conditional Probability and Bayes' Theorem (Proof not required).

Probabability Distribution: Binomial Distribution: Probabability Distribution function, Constants, Shape , Fitting of Binomial Distribution, Poission Distribution: Probability Function (including Poission approximation to binomial distribution) Constants, Fitting of Poission Distribution, Normal Distribution: Probabability Distribution Function, Properties of Normal Curve, Calculation of Probababilities.

Suggested Readings:

- 1. Levin, Richard and David S. Rubin. "Statistics for Management". Prentice Hall of India, New Delhi.
- 2. Chandan, J.S., "Statistics for Business and Economics", Vikas Publishing House Pvt. Ltd.
- 3. Render, B. and Stair, R. M. Jr., "Quantitative Analysis for Management", Prentice-Hall of India, New Delhi.
- 4. Gupta C B, Gupta V, "An Introduction to Statistical Methods", Vikas Publications.
- 5. Siegel, Andrew F, Practical Business Statistics. International Edition, McGraw Hill

6. Berenson, L.M., Krehbiel, T.C., Vishwanathan, P.K. and Levine, D.M., *Business Statistics: A First Course*, Pearson Education.

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BBA202-18 Business Environment

Course Objective: The objective of this paper is to acquaint students with the issues of business environment in which corporate sector has to operate. It will also familiarize them with the techniques available for scanning and monitoring the environment. It also aims at providing some basic knowledge about international environment pertaining to business.

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1: To Identify and evaluate the complexities of business environment and their impact on the business.

CO2: To analyze about the relationships between Government and business and understand the political, economic, legal and social policies of the country.

CO3: To understand the current economic conditions in developing emerging markets, and evaluate present and future opportunities.

CO4: To be acquainted with prerequisite knowledge required to understand the Probability and applications of probability theory.

CO5: To understand the concept of the Industrial functioning and strategies to overcome challenges in competitive markets.

Unit I

Introduction to Business Environment: Nature and Significance Business Environment. Components of Business Environment, Techniques of Environment Scanning. Economic Environment of Business: Economic Systems. Economic Planning in India, Brief idea of Industrial Policy, Fiscal policy, Monetary policy and EXIM policy.

Unit II

Political and Legal Environment of Business: Three political institutions: Legislature, Executive and Judiciary. Foreign Exchange Management Act (FEMA), Consumer Protection Act. Introduction to Liberalization, Privatization and Globalization: Factors facilitating and impeding globalization in India.

Unit III

Socio- Cultural Environment: Critical elements of socio-cultural Environment. Social responsibility of business. Business Ethics and Corporate Social Responsibility. Public Sector-Changing Role of Public Sector - Relevance of public Sector - Public Sector reforms. Regulatory framework with reference to Banking and Security Market. Technological Environment.

Unit IV

International Business Environment: Multinational Corporations-Benefits and Problems. Mergers and acquisitions - reasons - trends - Advantages and Disadvantages.WTO, Consequences of WTO for India. IMF. Regional Groupings.

SUGGESTED READINGS:

- Aswathappa, K: Essentials of Business Environment-Text, Cases and Exercises -Himalya Publishing House(13th Revised Edition-2016)
- Cherunilam, Fransis

 Business Environment

 Text and Cases ,Himalya Publishing

 House Pvt. Ltd.(20th Edition-2011)
- Paul, Justin-Business Environment- Text and Cases-McGraw Hill Education (India)
 Private Limited.(4th Revised Edition-2018)
- Ramachandara, Archana and Ravi-Business Environment. Himalya Publishing House Pvt. Ltd.(New Edition-2017)

Sheikh, Saleem and Sahu Jayadev, Business Environment, Pearson.

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BBAGE 201-18 Managerial Economics-II

Course Objective: This course aims to acquaint students with economy as a whole including measurement of national income, inflation and unemployment, which an objective to inculcate understanding of macroeconomic environment of an economy for better decision making.

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1: Explain the concept of national income and its measurement using different approaches.

CO2: Describe the underlying theories of demand and supply of money in an economy.

CO3: Make use of employment and national income statistics students will be able to describe and analyze the economy in quantitative terms.

CO4: Interpret macroeconomic issues like money, inflation and unemployment.

CO5: Identify the phases of the business cycle and the problems caused by cyclical fluctuations in the market economy.

Unit I

National Income: Measuring National Income. Problems in the measurement of National Income. Theories of Money: Nature and functions of money - Types of money: Near money, inside money and outside money. Theories of demand for money - defining demand for money - Classical theories of demand for money - Friedman's re-statement of Quantity Theory of Money; Liquidity preference theory and Keynesian Liquidity Trap. Theories of Supply of money; Defining supply of money; Measuring supply of money.

Unit II

Theories of Inflation and Unemployment: Meaning, Types and Theories of Inflation. - Cost of inflation and sacrifice ratio. - Measurement of Inflation in India - Policies to control inflation Meaning and types of unemployment. - Cost of unemployment and Oakun's Law Measurement of unemployment in India. - Concept of Stagflation - Concept of Philips Curve.

Unit III

Business cycle: Meaning, types and phases. Monetary, Fecal and Income policy - Meaning and instruments. Multiplier: Concept, Features and Leakages. Foreign trade multiplier.

Macro-economic Framework in Indian Economy-Public Finance-Tax system in India-Financial Administration: Finance Commission.

SUGGESTED READINGS:

- 1. Ahuja, H.L. (2015) Macroeconomics-Theory and Policy. New Delhi: Sultan Chand.
- 2. Jhingan, M.L. (2016) Macro Economic Theory. Delhi: Vrinda Publications Pvt. Ltd
- 3. Dwivedi, D.N.(2017)Macroeconomics: Theory and Practice: Theory & Practice. NewDelhi: McGraw Hill.
- 4. Jain, T.R., Khanna, O.P.(2014) Managerial Economics: V.K. Publications

5. Dewett, K.K., Navalur, M.H., (2006) Modern Economic Theory: New Delhi: Sultan

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AECC EVS102-18 Environment Studies

Course Outcomes:

- 1. Students will enable to understand environmental problems at local and national level through literature and general awareness.
- 2. The students will gain practical knowledge by visiting wildlife areas, environmental institutes and various personalities who have done practical work on various environmental Issues.
- 3. The students will apply interdisciplinary approach to understand key environmental issues and critically analyze them to explore the possibilities to mitigate these problems.
- 4. Reflect critically about their roles and identities as citizens, consumers and environmental actors in a complex, interconnected world

UNIT-1: Introduction to Environmental Studies

Multidisciplinary nature of Environmental Studies: Scope & Importance Need for Public Awareness

UNIT-2: Ecosystems

Concept of an Ecosystem: Structure & functions of an ecosystem (Producers, Consumers & Decomposers)

Energy Flow in an ecosystem: Food Chain, Food web and Ecological Pyramids Characteristic features, structure & functions of following Ecosystems:

- Forest Ecosystem
- Aquatic Ecosystem (Ponds, Lakes, River & Ocean)

UNIT-3: Natural Resources

Renewable & Non-renewable resources

Forest Resources: Their uses, functions & values (Biodiversity conservation, role in climate change, medicines) & threats (Overexploitation, Deforestation, Timber extraction, Agriculture Pressure), Forest Conservation Act

Water Resources: Their uses (Agriculture, Domestic & Industrial), functions & values, Overexploitation and Pollution of Ground & Surface water resources (Case study of Punjab), Water Conservation, Rainwater Harvesting,

Land Resources: Land as a resource; Land degradation, soil erosion and desertification

Energy Resources: Renewable & non-renewable energy resources, use of alternate energy resources (Solar, Wind, Biomass, Thermal), Urban problems related to Energy

UNIT-4: Biodiversity & its conservation

Types of Biodiversity: Species, Genetic & Ecosystem
India as a mega biodiversity nation, Biodiversity hot spots and biogeographic regions of India
Examples of Endangered & Endemic species of India, Red data book

UNIT-5: Environmental Pollution & Social Issues

Types, Causes, Effects & Control of Air, Water, Soil & Noise Pollution Nuclear hazards and accidents & Health risks

Global Climate Change: Global warming, Ozone depletion, Acid rain, Melting of Glaciers &

Ice caps, Rising sea levels

Environmental disasters: Earthquakes, Floods, Cyclones, Landslides

UNIT-6: Field Work

Visit to a National Park, Biosphere Reserve, Wildlife Sanctuary
Documentation & preparation of a Biodiversity (flora & fauna) register of campus/river/forest
Visit to a local polluted site: Urban/Rural/Industrial/Agricultural
Identification & Photography of resident or migratory birds, insects (butterflies)
Public hearing on environmental issues in a village

Suggested Readings:

- 1. Bharucha, E. Text Book for Environmental Studies. University Grants Commission, New Delhi.
 - 2. Agarwal, K.C. 2001 Environmental Biology, Nidi Publ. Ltd. Bikaner.
 - 3. Bharucha Erach, The Biodiversity of India, Mapin Publishing Pvt. Ltd., Ahmedabad 380 013, India, Email:mapin@icenet.net (R)
 - 4. Brunner R.C., 1989, Hazardous Waste Incineration, McGraw Hill Inc. 480p
 - 5. Clark R.S., Marine Pollution, Clanderson Press Oxford (TB)
 - 6. Cunningham, W.P. Cooper, T.H. Gorhani, E & Hepworth, M.T. 2001, Environmental Encyclopedia, Jaico Publ. House, Mumabai, 1196p
 - 7. De A.K., Environmental Chemistry, Wiley Eastern Ltd.
 - 8. Down to Earth, Centre for Science and Environment (R)
 - Gleick, H.P. 1993. Water in crisis, Pacific Institute for Studies in Dev., Environment & Security. Stockholm Env. Institute Oxford Univ. Press. 473p
 - Hawkins R.E., Encyclopedia of Indian Natural History, Bombay Natural History Society, Bombay (R)
 - 11. Heywood, V.H & Waston, R.T. 1995. Global Biodiversity Assessment. Cambridge Univ. Press 1140p.
 - 12. Jadhav, H & Bhosale, V.M. 1995. Environmental Protection and Laws. Himalaya Pub. House, Delhi 284 p.
 - 13. Mckinney, M.L. & School, R.M. 1996. Environmental Science systems & Solutions, Web enhanced edition. 639p.
 - 14. Mhaskar A.K., Matter Hazardous, Techno-Science Publication (TB)
 - 15. Miller T.G. Jr. Environmental Science, Wadsworth Publishing Co. (TB)
 - 16. Odum, E.P. 1971. Fundamentals of Ecology. W.B. Saunders Co. USA, 574p
- 17. Rao M N. & Datta, A.K. 1987. Waste Water treatment. Oxford & IBH Publ. Co. Pvt. Ltd. 345p.



- 18. Sharma B.K., 2001. Environmental Chemistry. Geol Publ. House, Meerut
- 19. Survey of the Environment, The Hindu (M)
- 20. Townsend C., Harper J, and Michael Begon, Essentials of Ecology, Blackwell Science (TB)
- 21. Trivedi R. K. and P.K. Goel, Introduction to air pollution, Techno-Science Publication (TB)

22. Wanger K.D., 1998 Environmental Management, W.B. Saunders Co. Philadelphia, USA 499p

BMPD202-18 Mentoring and Professional Development

Guidelines regarding Mentoring and Professional Development

The objective of mentoring will be development of:

- Overall Personality
- Aptitude (Technical and General)
- General Awareness (Current Affairs and GK)
- · Communication Skills
- Presentation Skills

The course shall be split in two sections i.e. outdoor activities and class activities. For achieving the above, suggestive list of activities to be conducted are:

Part – A (Class Activities)

- 1. Expert and video lectures
- 2. Aptitude Test
- 3. Group Discussion
- 4. Quiz (General/Technical)
- 5. Presentations by the students
- 6. Team building Exercises

Part – B (Outdoor Activities)

- 4. Sports/NSS/NCC
- 5. Field Project
- 6. Society Activities of various students chapter i.e. ISTE, SCIE, SAE, CSI, Cultural Club, etc.

Note: Evaluation shall be based on rubrics for Part – A & B.

Mentors/Faculty incharges shall maintain proper record student wise of each activity conducted and the same shall be submitted to the department.

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BBA 301- Organizational Behaviour

Course Objective: This course emphasizes the importance of human capital in the organizations of today. It gives an insight to the students regarding individual and group behaviour in any organization.

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1- To explain the basics of Orgnaizational behaviour and various challenges for OB.

CO2- To illustrate the foundations of Individual Behaviour and various factors influencing individual behaviour viz. learning, personality, perception, attitude and motivation.

CO3: To examine the dynamics of group development and group properties.

CO4: To understand various dimensions of organisational culture.

CO5: To analyse the process of conflict management and approaches to stress management.

Unit I

Introduction: Meaning of organizational behaviour and its relevance in today's business environment, contributing disciplines to Organization Behaviour, challenges and opportunities for OB.

Individual behaviour in organization: Foundations of individual behaviour, Factors influencing Individual Behaviour.

Learning: Meaning, characteristics and theories: Classical conditioning theory, operant conditioning theory, social learning theory, behaviour modification.

Unit II

Perception: Nature, importance, perceptual process, factors influencing perception, perceptual errors.

Attitude: Meaning, importance, components and types of work related attitude.

Personality: Meaning, determinants of personality, personality traits.

Motivation: Meaning, types of motivation, theories of work motivation given by Maslow,

Herzberg, McGregor, Vroom and Porter - Lawler.

Unit III

Group behaviour in organization: Group dynamics, Types of groups, Group development, theories of group development, Group norms and roles, Group cohesiveness,

Work Teams: Meaning, characteristics, types of team, Creating effective team.

Leadership: nature, leadership styles, Leadership theories: trait theory and behavioural theories.

Unit IV

Conflict Management: Meaning, types and sources of conflict, Process of conflict management, approaches to conflict management.

Stress management: sources of stress, approaches for stress management.

Organizational culture: meaning, concept, types of culture, dimensions of organizational culture.

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Suggested Readings/ Books:

- Robbins, Organization Behaviour, Pearson Education Asia
- Luthans, Organization Behaviour, Tata McGraw Hill
- Newstrom, Organizational Behaviour: Human Behaviour at Work, Tata McGraw Hill
- L.M. Prasad, Organisation Behaviour, Sultan Chand
- Parikh, Gupta, Organisational Behaviour, Tata McGraw Hill

· Aswathappa, Organization Behaviour, Himalaya

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BBA 302- Marketing Management

Course Objective: Marketing is one of the foremost functions of Management in present day corporate world, its understanding results in developing best products in terms of goods and services that brings consumer satisfaction. This course will imbibe the basic understanding among the students to become successful marketers.

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1: Explain the basics of marketing, selling, marketing mix and its core concepts.

CO2: Describe the intricacies of the marketing environment and marketing information systems for effective marketing planning and strategies.

CO3: Develop necessary skills for effective market segmentation, targeting and positioning. CO4 – Illustrate various components of product mix, product life cycle and comprehend the new product development process.

CO5- Develop an understanding of promotion mix and strategies for successful promotion Unit I

Marketing: Nature and Scope of Marketing, customer needs, wants and demand. Various Marketing Concepts: production, product, selling, marketing and societal marketing, Analyzing marketing environment: micro, macro environment

Unit II

Market segmentation: Need, concept, nature, basis and strategies, mass marketing vs. Segmentation.

Marketing mix: 4Ps of products and 7Ps of services, components and factors affecting mix.

Unit III

Product decisions: Product definition, new product development process, and product life cycle, positioning, branding, packaging and labeling decisions.

Pricing decisions: importance, objectives, designing strategies, Pricing Techniques

Unit IV

Distribution: Types of channel, factors affecting decision, Designing and Managing Marketing Channel, Managing Retailing, physical distribution system and its components. **Product Promotion**: promotion mix-introduction, importance, advantages and disadvantages of various components and factors affecting. Designing and managing Integrated Marketing Communications.

Suggested Readings:

- 1. Kotler, P., Keller, K.L. Koshy, A. and Jha, M., Marketing Management: A South Asian Perspective, Pearson Education.
- 2. Etzel, M., Walker, B., Stanton, W. and Pandit, A Marketing Management, Tata McGraw Hill.
- 3. Ramaswamy, V.S and Namakumari, S. Marketing Management: Global Perspective Indian Context, Macmillan Publishers India Ltd.
- 4. Saxena, Rajan, Marketing Management, Fourth Edition, Tata McGraw Hill Education Pvt. Ltd.

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BBA 303-18 COST AND MANAGEMENT ACCOUNTING

Course Objective: To impart the students, knowledge about the use of financial, cost and other data for the purpose of managerial planning, control and decision making.

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1: Understand and differentiate between Cost accounting and management accounting.

CO2: Make managerial decisions regarding make or buy, acceptance or rejection of export offers and continuation or shut down of plant.

CO3: Estimate the breakeven point of the firm.

CO4: Understand and apply the concepts of budgetary control for better decision-making.

CO5: Understand and estimate material, labour, overheads and sales variances for comparing planned with actual results.

Unit - I

Introduction: Meaning, Objectives, Nature and Scope of management accounting, Difference between cost accounting and management accounting, Cost control and Cost reduction, Cost management.

Ratio Analysis: Meaning-Nature, different types of ratios, their uses and limitations, computation of various types of ratios – liquidity ratios, solvency ratios, profitability ratios, turnover ratios

Unit - II

Analysis and Interpretation of financial Statements: Meaning- Types and Methods of Financial Analysis - Comparative statements - Trend Analysis - Common size statements.

Standard Costing: Standard Costing and Variance Analysis: Meaning of standard cost and standard costing, advantages, limitations and applications. Variance Analysis – material, labour, overheads and sales variances.

Unit - III

Budgetary Control: Budgeting and Budgetary Control: Concept of budget, budgeting and budgetary control, objectives, merits, and limitations. Budget administration. Functional budgets. Fixed and flexible budgets. Zero base budgeting.

Unit - IV

Marginal Costing: Absorption versus Variable Costing: Distinctive features and income determination. Cost-Volume-Profit Analysis, Profit / Volume ratio. Break-even analysis-algebraic and graphic methods, Margin of safety, Key factor, determination of cost indifference point.

Suggested Readings:



- Horngren, C. T., Sundem, G. L., Stratton, W. O., Burgstahler, D., & Schatzberg, J. (2011). *Introduction to management accounting*. Pearson Education International.
- Anthony A. Atkinson, Robert S. Kaplan, Ella Mae Matsumura, S. Mark Young. (2006). Management Accounting. Dorling Kindersley(India) Pvt. Ltd.
- Singh, Surender. (2016). Management Accounting. Scholar Tech Press, New Delhi.
- Garrison H., Ray and Eric W. Noreen. (2016). Managerial Accounting. McGraw Hill.
- Goel, Rajiv. (2013). Management Accounting. International Book House,
- Arora, M.N. (2012). A Textbook of Cost and Management Accounting. Vikas Publishing House, New Delhi.

 Maheshwari, S.N. and S.N. Mittal. (2017). Management Accounting. Shree Mahavir Book Depot, New Delhi.

BBA-304 Production and Operations Management

Course objective: The course aims at developing knowledge about various steps of product, design, development, plant location, storage, production planning and control.

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1: Understand ever growing importance of Production and Operations management in uncertain business environment.

CO2: Gain an in-depth understanding of resource utilization of an organization.

CO3: Appreciate the unique challenges faced by firms in services and manufacturing.

CO4: Understand the subject as a crucial part of functional management.

CO5: Develop skills to operate competitively in the current business scenario.

UNITI

Operations management: Concept, Functions. Product Design and development – Product design and its characteristics: Product development process (Technical): Product development techniques .Process selection- Project, job, Batch, Mass and Process types of Production Systems.

UNIT - II

Facility Location – importance, Factors in Location Analysis: Location Analysis Techniques.

Facility Layout – Objectives: Advantages: Basic types of layouts. Capacity Planning – Concepts: Factors Affecting Capacity Planning, Capacity Planning Decisions. Production Planning & Control (PPC) –Concepts, Objectives, Functions.

UNIT-III

Introduction to modern productivity techniques – just in time, Kanban system. Total Quality Management & six sigma.

Functions of Purchasing Management – Objectives, Functions: Methods: Procedure. Value analysis – Concepts. Stock control systems. Virtual factory concept.

UNIT-IV

Inventory Management – Concepts, Classification: Objectives: Factors Affecting Inventory Control Policy: Inventory costs: Basic EOQ Model: Re-order Level: ABC Analysis. Quality Management - Quality Concepts, Difference between Inspections, Quality Control, Quality Assurances, Total Quality Management: Control Charts: acceptance sampling.

Suggested Readings:

- 1. Nair, Production & Operations management, 1st Edition, Tata McGraw Hill
- 2. Adam and Eben, Production & Operations management, 5th Edition, Prentice Hall, India.
- 3. Krajewski & Ritzman, Operations Management, 5th Edition, Pearson Education.
- 4. Buffa & Sarin, Modern Production/Operations Management, 8th Edition, John Wiley
- 5. Chary, Production & Operations Management, 2nd Edition, Tata McGraw

BBA-SEC 301 IT Tools for Business

Course Objective: The purpose of this course is to provide a through exposure to the operating and office management tools available in different packages. A student can be exposed to the working knowledge of Windows based operating systems and software packages such as Windows-95, 98, 2000-Professional, windows -XP and MS -Office.

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1: Develop understanding of computer fundamentals, functions and their classifications

CO2: Develop a clear understanding and knowledge about the functioning of a Computer software and window operating system

CO3: Demonstrate proficiency in Microsoft word & Excel.

CO4: Apply formatting and editing features to enhance worksheets.

CO5: Use styles, themes, and conditional formats to customize worksheets.

Unit-I

Computer Fundamentals: Data, Instruction and Information, Characteristics of Computers, Various fields of application of Computers, Input-output Devices (Hardware, Software, Human ware and Firmware) Advantages and Limitations of Computer, Block Diagram of Computer, Function of Different Units of Computer, Classification of Computers. Data Representation: Different Number System (Decimal, Binary, Octal and hexadecimal) and their Inter Conversion.

Unit -II

Computer Software: Types of Software, Application software and system software, Compiler and Interpreter, Generations of languages, Low- and High-Level Languages. Computer Memory: Primary Memory & Secondary memory. Storage Media. Introduction to Windows Operating System: All Directory Manipulation: Creating Directory, Sub Directory, Renaming, Coping and Deleting the Directory File Manipulation: Creating a File, Deleting, Coping, renaming a File Using accessories such as calculator, paint brush, CD player, etc

Unit -III

MS-Word: History, Creating, Saving, Opening, Importing, Exporting and Inserting document, Formatting pages, Alignment, Paragraphs and Sections. Indents and Outdents, creating lists and numberings Formatting Commands: Headings, Styles, Fonts and Size editing, Viewing Text, Finding and Replacing text, Headers and Footers, Inserting page

breaks, Page numbers, Special Symbols and Dates Mail merge, Preview and Printings command.

MS-PowerPoint: History, Creating, Saving, Opening, existing presentation, Creating and Saving a Presentation using Auto Content Wizard, Design Template, Blank Presentation the Slide Sorter View, Slide Show, Inserting pictures and graphics and Printing Slides.

Unit -IV

MS-Excel: Introduction, Components of Excel History, Creating, Saving, Opening, Spreadsheet, Formatting numbers and Text, Graph and Chart Formatting Commands, Menu Bar, Toolbars, Producing Charges, Protecting Cell Macro and Printing Operation, Spell Checking, Cell Editing, Calculation of various Financial and Statistical Functions using Formulas.

Note: Relevant Case Studies should be discussed in class.

Suggested Readings:

- Ram, B.(2018). Computer Fundamentals Architecture and Organization. New Delhi: Age Publications
- Sinha, P.K. and Sinha, P. (2017). Foundation of computing. New Delhi: BPB Publications.
- Arora, A.(2015) Computer fundamentals and applications. Vikas Publishing.
- Rajaraman, V.(2014). Fundamentals of Computers. Delhi: Prentice-Hall.
- Roger, J. (2010). Microsoft Access 2010. Delhi: Pearson Education.
- Forouzan, (2009). Basics of Computer Science. India: Cengage Learning
- Levi, D.S., Kaminsky, P. (2007) Designing and Managing the Supply Chain. McGraw Hill
- Turban, E., Aronson JE., Liang, TP. (2005). Decision Support Systems and Intelligent Systems (7th Edition). Pearson Publishers.



BMPD302-18 Mentoring and Professional Development

Guidelines regarding Mentoring and Professional Development

The objective of mentoring will be development of:

- · Overall Personality
- Aptitude (Technical and General)
- General Awareness (Current Affairs and GK)
- Communication Skills
- Presentation Skills

The course shall be split in two sections i.e. outdoor activities and class activities. For achieving the above, suggestive list of activities to be conducted are:

Part - A (Class Activities)

- 1. Expert and video lectures
- 2. Aptitude Test
- 3. Group Discussion
- 4. Quiz (General/Technical)
- 5. Presentations by the students
- 6. Team building Exercises

Part - B (Outdoor Activities)

- 7. Sports/NSS/NCC
- 8. Field project.
- 9. Society Activities of various students chapter i.e. ISTE, SCIE, SAE, CSI, Cultural Club, etc.

Note: Evaluation shall be based on rubrics for Part - A & B.

Mentors/Faculty incharges shall maintain proper record student wise of each activity conducted and the same shall be submitted to the department.

BBA 401 Business Research Methods

Course Objective: The course aims at equipping students with an understanding of the research process, tools and techniques in order to facilitate managerial decision making.

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1: Explain the objectives and process of conducting research and its application in business.

CO2: Analyse the different types of research design and experimental errors.

CO3: Understand various techniques of sampling and methods of data collection.

CO4: Examine different types of scales and appraise about data preparation and analysis.

CO5: Identify and prepare various types of reports.

UNIT I

Research Methodology: definition, objectives, scope in management research, process of Research and limitations.

Research Design: Formulating the Research Problem, Choice of Research Design, Types of Research Design, Sources of Experimental Errors

UNIT II

Sampling: Advantages and Limitation of Sampling, Sampling process, Types of Sampling: Non-

probability sampling techniques, Probability sampling techniques, Sampling and non sampling

errors. Data collection: primary, secondary data collection, observation methods and survey method:

UNIT III

Measurement Concept, Levels of measurement—Nominal, Ordinal, Interval and Ratio Attitude Measurement: Comparative scaling techniques, Non-comparative scaling techniques,

Questionnaire Designing: Types, Guidelines for developing a good questionnaire

UNIT IV

Data Preparation And Analysis: Editing, Coding, Cross Tabulation and Practices through Excel (Basic Concepts)

Report Writing: Types of Research Reports, Guidelines for Writing a Report, Report Format,

Guidelines for evaluating a report.

Suggested Readings:

1. K.V. Rao: Research Methodology, Sterling Publishers.

2. Srivastava and Rego: Business Research Methodology Tata McGraw Hill

3. Rajinder Nargundhkar: Marketing Research, Tata McGraw Hill

4. Cooper and Schindler, Business Research Methods, Tata McGraw Hill

5. C.R. Kothari : Research Methodology, New Age International Publishers



BBA 402 Human Resource Management

Course Objective: To provide an in-depth overview of the field of HRM, what are the roles and responsibilities of HR professionals how the primary functions affect the broader business strategy.

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1- To explain the basics of Human Resource Management and analyse the evolution of HRM.

CO2: To appraise various functions of HRM that facilitate employee hiring viz. human resource planning, job analysis recruitment and selection.

CO3: To understand the role of training, development, career planning and performance appraisal functions in human resource development.

CO4: To analyse the functions of compensation management namely, wages and salary administration, incentives and fringe benefits.

CO5: To comprehend the meaning and concept of Industrial relations.

Unit I

Nature, scope, role and importance of HRM. New trends in HRM due to globalization deregulation and technological advancements, HRM practices in India, issues and challenges. Human Resource Planning: Meaning, factors affecting HRP, Human Resource Planning process.

Unit II

Job analysis: steps in analysing job and introduction to methods of collecting job analysis information, Job description, job specification. Job design: job simplification, job rotation, job enrichment and job enlargement.

Recruitment: sources of recruitment, policies and procedure of recruitment. Selection process,

testing and interviews, Placement and induction.

Unit III

Training and Development: Identification of training needs, process of training and methods of training and development.

Career planning and development: career life cycle, process of career planning and development.

Unit IV

Performance appraisal: Meaning, process of performance appraisal, methods and problems of performance appraisal.

Compensation Management- Wage & Salary Administration: Meaning & Concept of Wage & Salary Administration, Elements & Methods of Wage & Salary, Incentive Plans & Fringe Benefits.

Industrial Relations: Meaning & Concept of Industrial Relations.

Suggested Readings:

- 1. Monnappa and Saiyadan, Personnel Management, Tata Mcgraw Hill.
- 2. Dessler, Garg, Human Resource Management, Pearson education.
- 3. C.B. Memoria Personal Management Himalaya
- 4. K. Aswathappa Human Resource Management Tata McGrawHill
- 5. Rao V.S.P. Human Resource Management, Excel books

BBA 403 Financial Management

Course Objective: To develop a conceptual clarity and basic understanding of the fundamentals of corporate finance among the students. Further help them comprehend its practical applicability in the corporate world.

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1: Apply financial data for use in decision making by applying financial theory to problems faced by business enterprises.

CO2: Apply foundational finance theories and to analyse a forecast using relevant data and to conduct preliminary measurement of leverage analysis.

CO3: Apply time value of money techniques to various pricing and budgeting problems.

CO4: Apply modern techniques in capital budgeting analysis.

CO5: Assess dividend policy's impacts on share prices and to understand the implications of Dividend decisions in financial decision making.

Unit I

Financial management -Introduction: Meaning, nature and Scope, Goals of Financial Management-Profit Maximization vs. Wealth Maximization; Finance functions-investment, Financing, Liquidity and dividend decisions. Sources of finance-Long term and short term. Concept of Time Value of Money-present value, future value, annuity, Present Value of a series of payments.

Unit II

Cost of Capital: Meaning and significance of cost of capital; cost of equity shares; cost of preference shares; cost of debt, weighted average cost of capital. Form of Capital: Introduction to Capital Structure; theories- NI approach; NOI approach; MM approach; Traditional approach, determinants of capital structure. Operating and Financial Leverage: Measurement of leverages; Financial and operating leverage, combined leverage

62835/2021/IKGPTU Main Campus Unit II

Investment Decision Making: Meaning, importance, nature of investment decisions. Investment evaluation criteria, Capital budgeting Techniques-Non-discounted cash flow-Pay back methods; Post Payback period; Accounting rate of return method, Discounted cash flow techniques-Net Present value method; Internal rate of return method; Profitability index method.

Unit IV

Working Capital: Meaning, significance, types, approaches, Factors affecting working capital management capital. **Dividend Policies:** Issues in dividend decisions. Forms of dividend-Theories of relevance and irrelevance of dividends.

Suggested Readings:

- Khan, M. Y. and Jain P. K.(2011), "Financial Management, Text, Problems & Cases", Tata McGraw Hill Company, New Delhi.
- II. Pandey, I.M.(2015), "Essentials of Financial Management", 4th Edition, Vikas Publishing House Pvt. Ltd., New Delhi.
- III. Maheshwari, S.N.(2019), "Financial Management Principles & Practice", 15th Edition, Sultan Chand & Sons, New Delhi.
- IV. Rustagi, Dr.R.P. (2017), "Basic Financial Management", 8th Edition, Sultan Chand & Sons, New Delhi.
- V. Patel, Bhavesh(2014)," Fundamentals of Financial Management", Vikas Publishing House Pvt. Ltd., New Delhi.

BBA GE- 401 Entrepreneurship Development

Course Objective: The objective of the course is to make the student understand the concept and importance of entrepreneurship and facilitate generation of young entrepreneurs.

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1: Describe the concept and theories of entrepreneurship and its role in economic development of nation.

CO2: Develop business plan and identify the reasons of failure of business plans.

CO3: Illustrate the steps in starting MSME.

CO4: Comprehend government policies and regulatory framework available in India to facilitate the process of entrepreneurial development.

CO5: Identify different sources of finance for new enterprises and assess the role of financial institutions and various government schemes in entrepreneurial development.

Unit 1

Definition and Concept of Entrepreneurship, Theories of Entrepreneurship, Myths about Entrepreneurship, Entrepreneurial Traits and Motivation, Role of Entrepreneurship in economic development. Types of Entrepreneurs. Barriers in the way of Entrepreneurship. Entrepreneurship Development (ED) Cycle.

Unit II

Creativity and Business Ideas, Blocks to creativity. Business Plans and reasons of failure of business plans. Micro-Small-Medium (MSME) Enterprise – Definition – Characteristics- Objectives- Advantages- Disadvantages-Role in developing countries-Problems- steps for starting – Government Policies.

Unit III

EDP in India – Phases of Entrepreneurial programs – Government Policies- Administrative Frame work – Policy instruments – Statutory Boards – Industrial Estates – Industrial clusters – Incentives and subsidies – Advantages - Needs & Problems – Promotional agencies. Business Incubators& Start-ups.

Unit IV

Financing Options - Bridge capital, Seed capital assistance, Margin money scheme, Industrial Sickness, Causes-Remedies- An overview on the roles of institutions/schemes in entrepreneurial development- SIDBI, Commercial Banks. Other financing options- venture capital, lease funding, Angel Investors. Revival, Exit and End to a venture.

Suggested Readings:

- Kumar, Arya(2018), "Entrepreneurship", Pearson, New Delhi.
- Gopal, V.P. Nanda (2015), "Entrepreneurial Development", Vikas Publishing, New Delhi.
- Desai, Vasant, "Dynamics of Entrepreneurial Development & Management", Himalaya Publishing House.
- Khanka, S S, Entrepreneurial Development, S.Chand & Co., New Delhi.



BBA SEC- 401 Business Ethics & Corporate Social Responsibility

Course Objective: This paper aims at providing the students the understanding of ethical issues related to business and good governance necessary for long term survival of business.

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1: Explore the relationship between ethics and business across different cultural traditions

CO2: Understand the relationship between ethics, morals and values in the workplace

CO3: Discuss the moral and social responsibility dimensions of corporate governance.

CO4: Describe models of CSR in India.

CO5: Assess international framework for CSR.

Unit I

Business Ethics: Nature, scope and purpose of ethics, Importance of Ethics & Moral standards; Ethics & Moral Decision Making, Ethical Principles in Business, Markets, Environment, Trade, Consumer Production and Marketing, Finance, HR, Personal Growth and Lessons from Ancient Indian Educational System; Science and Human Values.

Unit-II

Indian Ethos: Need, purpose & relevance of Indian Ethos; Salient feature (Brain Stilling, Total Quality Mind, Intuition, Intellectual rational brain V/s Holistic-Spiritual Brain. Holistic Approach for Managers in Decision Making, Professional ethos and code of professional ethics Human Values, Different meaning of human values: foundational human values – freedom, creativity, love and wisdom, Nature of Human freedom.

UNIT III

Meaning & Definition of CSR, History & evolution of CSR. Concept of Charity, Corporate philanthropy, Corporate Citizenship, CSR-an overlapping concept. Concept of sustainability & Stakeholder Management. CSR through triple bottom line and Sustainable Business; relation between CSR and Corporate governance; environmental aspect of CSR; Chronological evolution of CSR in India; models of CSR in India, Carroll's model; drivers of CSR; major codes on CSR; Initiatives in India.

UNIT IV

International framework for corporate social Responsibility, Millennium Development goals, Sustainable development goals, Relationship between CSR and MDGs. United Nations (UN) Global Compact 2011. UN guiding principles on business and human rights. OECD CSR policy tool, ILO tri-partite declaration of principles on multinational enterprises and social policy.

Suggested Readings:

- 1. S.S. Iyer Managing for Value (New Age International Publishers, 2002)
- 2. S.K. Bhatia Business Ethics and Managerial Values (Deep & Deep Publications Pvt.Ltd, 2000).
- 3. Velasquez Business Ethics Concepts and Cases (Prentice Hall, 6th Ed.)
- 4. Reed Darryl Corporate Governance, Economic Reforms & Development (Oxford).
- 5. Mathur UC Corporate Governance & Business Ethics (Mc Millan).
- 6. Human Values By: Prof. A.N. Tripathi New Age International
- 7. Corporate Social Responsibility in India Sanjay K Agarwal
- 8. Handbook on Corporate Social Responsibility in India, CI,

BMPD402-18 Mentoring and Professional Development

Guidelines regarding Mentoring and Professional Development

The objective of mentoring will be development of:

- Overall Personality
- Aptitude (Technical and General)
- General Awareness (Current Affairs and GK)
- Communication Skills
- Presentation Skills

The course shall be split in two sections i.e. outdoor activities and class activities. For achieving the above, suggestive list of activities to be conducted are:

Part - A (Class Activities)

- Expert and video lectures 1.
- 2. Aptitude Test
- Group Discussion 3.
- Quiz (General/Technical) 4.
- 5. Presentations by the students
- Team building Exercises 6.

Part - B (Outdoor Activities)

- 10. Sports/NSS/NCC
- 11. Field project.
- 12. Society Activities of various students chapter i.e. ISTE, SCIE, SAE, CSI, Cultural Club, etc.

Note: Evaluation shall be based on rubrics for Part - A & B. Mentors/Faculty incharges shall maintain proper record student wise of each activity conducted and the same shall be submitted to the department.

Dean (P&EP)

BBA 501-18 **Operation Research**

Course Objective: The objective of the course is to acquaint the students with the applications of the operations research to business and industry and help them to grasp the significance of analytical approach to decision making.

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1: Understand the concept, approaches and applications of operations research.

CO2: Apply the methods of linear programming for decision making.

CO3: Analyse transportation and assignment problems of business.

CO4: Apply the methods of game theory to solve business problems

CO5: Apply the techniques of network analysis to schedule business / project activities.

Unit 1

Introduction to Operation Research:- Meaning, Evolution, approaches, techniques and scopes of operations research, managerial application of Operation Research. Linear programming:-Introduction, meaning characteristics, graphical approaches and its utility simplex method, dual linear programming

Unit 2

Transportation & Assignment Problem: - The general structure of the problem, methods of initial allocation degeneracy, optimal solution, assignment problem, structure variation in assignment problem.

Unit 3

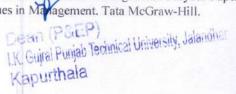
Game Theory: Games with pure and mixed strategies, saddle point, odds method, principle of dominance, sub games method. Sequencing problems: Processing jobs through two machines and three machines.

Unit 4

Network Analysis:- PERT/CPM background and development, stages in application PERT networking analysis, CPM, Determination of CPM, Determination of earliest expected & latest allowable times. Inventory control: - Classification of Inventory control, EOQ model, inventory control system, ABC Analysis, Advantages of EOQ model in management.

References:

- Gupta P.K., Hira D.S. (2011). Operations Research S. Chand & Co. Ltd., New Delhi.
- Taha H.A.(2010). Operations Research An Introduction. Pearson Education.
- Mustafi, C.K. (2000). Operations Research: New Age International Pvt. Ltd., New Delhi.
- Gupta, M.P., Sharma J. K. (2000). Operations Research for Management: Mayoor Paperbacks, Delhi.
 N.D. Vohra. (2007) Quantitative Techniques in Management. Tata McGraw-Hill.



- Frederick S. Hillier and Gerald J. Lieberman. (2001). Introduction to Operations Research: concept and cases.Tata McGraw-Hill.
- Sharma J.K.(2006). Operations Research: Theory and Application. Macmillan Publishers India.

BBA 502-18

Mercantile Law

Course Objective: To provide the brief idea about the frame work of Indian Business Laws. The course aims to familiarize the students with case law studies related to Business Laws.

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1: Understand the concept, approaches and application of Contract Act in business decision making.

CO2: Understand and apply the provisions of Partnership Act in business decision making.

CO3: Understand and apply the provisions of sales Act in business decision making.

CO4: Understand and apply the provisions of Consumer Protection Act and Environment Protection Act in business decision making

CO5: Understand and apply the provisions of Negotiable Instrument Act in business decision making

Unit I

Introduction to Contract Act: Agreement, kinds of Agreements, Contract- kinds of contracts: Valid, Void, Voidable, Contingent and Quasi Contract and E contract, distinguish between agreement and contract. Offer and Acceptance - Definition, Essentials and types Communication of offer, Acceptance and Revocation. Capacity to contract, Free Consent, Consideration, Legality of Object and Consideration. Performance and discharge of contract, Remedies for breach of contract.

Law of Indemnity and Guarantee, Law of Bailment and pledge, Law of Agency.

Unit II

Partnership Act: Introduction to Partnership Act, Admission of Partner, Retirement and Death of Partner, Dissolution of Partnership Firm.

The Sale of Goods Act: Introduction, definitions, Formalities of the contract of sale, Distinction between 'sale' and 'agreement' of sell, Distinction between 'sale and hire-purchase agreement', Conditions and Warranties, Transfer of property as between the seller and buyer Rights of an unpaid seller.

Unit III

Consumer Protection Act: Objectives, features, structure and significance

Environment Protection Act : Objectives, features, structure and significance

Unit IV

Negotiable Instrument Act: Meaning and Characteristics of Negotiable Instrument, classification of Negotiable Instruments, Promissory Notes and Bills of Exchange, Essential elements of promissory Note and bill of exchange. Acceptance for honour, Absolute and qualified or conditional acceptance, Drawer, Drawee in case of Need, Payee, Cheques, types of cheques and Penalties in case of dishonour of certain cheques, distinguish between cheque and Bill of exchange, Holder, Holder in Due Course, Rights and privileges of H.D.C. Payment in due course, Maturity of an Instrument.

References:

- Majumdar, A.K. (2017), "Company Law" Taxman Publishers
- C. L. (2016), "Business Laws" Taxmann Publishers.
- Kuchhal M. C. and Parkash D (2016), "Business Legislations for Managements' Vikas Publications.
- Singhania V. K. and Singhania K (2016), "Direct Tax Laws and Practice' Taxmann Publishers.

> Chawla, Garg and Sarin (2017), "Mercantile Law' Kallani Publishers.



BMPD 502-18 Mentoring and Professional Development

Guidelines regarding Mentoring and Professional Development

The objective of mentoring will be development of:

- Overall Personality
- Aptitude (Technical and General)
- General Awareness (Current Affairs and GK)
- Communication Skills
- Presentation Skills

The course shall be split in two sections i.e. outdoor activities and class activities. For achieving the above, suggestive list of activities to be conducted are:

Part - A (Class Activities)

- 1. Expert and video lectures
- 2. Aptitude Test
- 3. Group Discussion
- 4. Quiz (General/Technical)
- 5. Presentations by the students
- 6. Team building Exercises

Part - B (Outdoor Activities)

- 13. Sports/NSS/NCC
- 14. Field project.
- 15. Society Activities of various students chapter i.e. ISTE, SCIE, SAE, CSI, Cultural Club, etc.

Note: Evaluation shall be based on rubrics for Part – A & B. Mentors/Faculty incharges shall maintain proper record student wise of each activity conducted and the same shall be submitted to the department.

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Dean (P&EP)

BBA 511-18

Consumer Behaviour

Course objective:

The course aims at providing fundamental knowledge and exposure to the concepts, theories and practices in Consumer behavior and to facilitate the students in appreciating need/significance and applications of various domains of consumer behavior especially in the changing business environment.

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1: Understand fundamental concepts, nature and importance of consumer behaviour.

CO2: Analyze the various factors that influence consumer decisions.

CO3: Understand the individual, group or organizations make buying decisions.

CO4: Understand how and why groups affect consumer behavior.

CO5: Understand the emerging trends in field of consumer behavior.

Unit I

Consumer Behaviour: Nature, scope & Importance of Consumer behavior. Consumer decision making process (five step model), factors affecting buying behaviour, Models of consumer decision making,

Unit II

Consumer as an individual: Consumer motivation: needs & goals, Personality: Theories (Psychoanalytical and Trait Product Personality, Consumer Perception: Concept and Elements of Perception, Theories of consumer learning: Behavioural and Cognitive Learning Theories. Consumer Attitude: Meaning of Consumer attitude and Functions of Attitude.

Unit III

Consumer in social & cultural setting: Reference groups: concepts, factors affecting reference groups, Family: Functions of family, Family Life Cycle. Social class: Meaning and different social classes, Culture & sub culture: definition & influence.

Unit IV

Consumer Decision Making: Introduction to opinion leadership, Diffusion of innovations: Diffusion Process, Adoption Process Influence, Profile of Consumer Innovators.

Recommended Text Books:

- 1. Schiffman, L.G. and Kanuk, L.L.(2018) Consumer Behavior, Prentice Hall of India
- 2. Loudon, D. and Bitta, D., (2010) Consumer Behaviour, Tata Mc Graw Hill
- 3. Majumdar, R, (2017) Consumer Behaviour: Insights from the Indian Market, PHI Learning
- 4. Schiffman, L.G. Wisenblit and Kumar (2016). Consumer Behavior, Pearson.



BBA 512-18

Advertising and Sales Management

Objective of Course: The course aims at providing fundamental knowledge and exposure to the concepts, theories and practices in the field of advertising and sales management. The course will help students learn rules and techniques of effective advertising and to understand the sales management process and its management

Course Outcomes: After studying this course, the students should be able to:

CO1: Understand advertising and its role in Marketing

CO2: Apply knowledge of advertising components in designing effective Advertising campaign for products and services

CO3: Design effective Media strategy for its product /Service awareness

CO4: Apply its knowledge in recruiting and selecting right set of Sales force for selling products and services in market

CO5: Design sound sales strategy for its products and services. CO6: Measure performance of sales force and sales territories.

Unit I

Advertising: Definition of Advertising, History of Advertising, Roles of Advertising, Types of Advertising, Setting advertising objectives ,different kinds of advertising, Advertising Layout, advertising copy, Creative copy strategies, Message Strategies, Cognitive strategies, Exceptional Strategies, Advertising Effectiveness.

Unit II

Media planning & scheduling: Media Plan, Types of media, Market Analysis, Media Objectives, Developing and Implementing Media Strategies, Evaluating the effectiveness of Media, Measuring advertising effectiveness: pre and post testing, Social, Ethical and Legal Aspect of Advertising,

Unit III

Sales Management: Definition, Nature, Scope and Importance of Sales Management, Emerging Trends in Sales Management. Role and Skills of Sales Managers, Function and qualities of a Sales Executive, Sales Objectives, Sales Strategies.

Personal Selling: Defining Personal Selling, Scope and Significance, Aims and Objectives of Personal Selling, AIDAS Principles, Personal Selling Process, Customer Delight

Unit IV

Sales Force Management: Meaning and Role of Sales Force, Sales Force Objectives and Strategy, Sales Force Size, , Financial rewards, Non-financial rewards, Compensation, Sales Territories and Quotas: Defining Sales Territory, Designing Sales Territory, Steps involved, Methods used, Guidelines for designing territories, Types of territory designs.

Note: Relevant Case Studies should be discussed in class.

Suggested Readings:

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1. 1. Belch, G. E. & Belch, Advertising and Promotion, Tata McGraw Hill.

2. Wells W., Burnet J. and Moriarty S, Advertising: Principles & Practice, Pearson Education.

3. O' Guinn, T. and Allen, C. 'Advertising Management with Integrated Brand Promotion' Cengage Learning

4. Aaker, D A, Myers and Batra, Advertising Management, Pearson Education

5. S. A. Chunawalla, Foundation of Advertisement Theory and Practices, Himalaya Publications

Latest editions of the books should be followed.

Dean (PGEP)

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Kapurthala 4



BBA 521-18

Corporate Accounting

Course Objective: To make the student familiar with corporate accounting procedures and in-depth knowledge of preparation of various accounts related to corporate field.

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1: To understand the accounting of issue of shares and debentures.

CO2: To understand the final accounts of company form of organization.

CO3: To get an overview of financial reporting of financial institutions

CO4: To understand the accounting treatment for amalgamation.

CO5: To understand the accounting for liquidation of the company.

Unit I Accounting for Shares and Debentures: Issue of Shares at Par, at Premium and at Discount; Forfeiture and Re-Issue of Shares; Buy-Back of Shares; Redemption of Preference Shares; Rights Issue. Issue of Debentures; Redemption of Debentures; Conversion of Debentures into Shares. Underwriting of Issues; Profits Prior To Incorporation; Treatment of Preliminary Expenses.

Unit II Final Accounts of company: Provisions and Reserves; Determination of Managerial Remuneration; Appropriation out of Profits; Payment of Dividend, Transfer of Unpaid Dividend to Investor Education and Protection Fund; Bonus Shares and Payment of Interest out of capital.

Unit III Accounting Treatment for Amalgamation and Reconstruction of Companies: Amalgamation- Accounting Treatment and Disclosures; Calculation of purchase consideration, Accounting treatment in the books of transferor and transferee (as per Accounting Standard 14, excluding inter- company holdings). Internal Reconstruction Holding and Subsidiary Companies, Preparation of consolidated balance sheet — minority interest – cost of acquiring control or goodwill – capital reserve – preference share capital in subsidiary companies.

Unit IV: Liquidation of companies: Scope, contributory preferential payments, preference dividend. Statement of affairs and deficiency/surplus account, Liquidators final statement of account, liquidator remuneration, receiver for debenture holders, list 'B' contributories.

Note: Relevant Case Studies will be discussed in class

Suggested Readings / Books:

- Shukla M.C., Grewal T. S. & Gupta S. C.(2017) Advanced Accounts. (19 Ed). Sultan Chand & Company Ltd.
- Gupta R. L. & Radhaswamy M. (2013). Corporate Accounting. Sultan Chand & Sons.
- Maheshwari S.N. Corporate Accounting Vikas Publishing House.

- Ghosh T.P. (2007) Accounting Standards and Corporate Accounting Practices Vol. 1. Taxman's, New Delhi,
- > Sharma P. Corporate Accounting. Sharma Publication.
- > Arulanandam M.A., Raman K.S. Advanced Accounting, Himalaya Publication.
- Middlekauff, R.H. (2007). The glorious cause: The American revolution. Oxford University Press.

Dean (P&EP)

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Kapurthala

BBA 522-18

Financial Markets and Services

Course Objective: The objective of the course is to understand role of Financial Services and markets in Business organizations and to give an insight into the strategic, regulatory, operating and managerial issues concerning select financial services. In addition, the course will examine the present status and developments that are taking place in the financial markets and developing an integrated knowledge of the functional areas of financial services industry in the real services industry in the real world situation.

Course Outcomes: Upon completion of this course, students will be able to:

CO1: To understand the concept of financial system and their importance.

CO2: To know the structure of Financial Markets.

CO3: To develop basic understanding of derivatives and currency markets.

CO4: To understand the importance and role of Primary and Secondary markets.

CO5: To understand the role and types of Financial Services

CO6: To understand structure and system of leasing, mutual funds, credit rating, credit cards,

Dematerialization, merchant banking, venture capital, factoring, and securitization.

Unit I Introduction to Financial System: Introduction, components, key elements, Financial Markets; money market in India; nature, instruments, functioning and participants. Indian Capital Market: structure, functions, role, participants. Financial Services: Meaning, types and their importance, Role of Financial Services in a financial system.

Unit II Financial Regulations: Regulatory Frame work; Securities Exchange Board of India and Reserve Bank of India. Primary Market: SEBI guidelines on primary market, Book building, online IPOs, Green-shoe option. Secondary Market: Introduction, stock exchanges, listing of securities, trading and settlement. Introduction to Derivative Markets.

UNIT III Financial Services: Leasing: Meaning and features, Types of Leases, Lease vis-àvis buy. Lease vis-àvis Hire purchase. Mutual Funds: Concept, Composition, Schemes, Merchant Banking: Meaning, scope, Latest guidelines of SEBI w.r.t. Merchant bankers. Credit Rating: Types of credit Rating, credit Rating Agencies & their Methodology. Venture Capital: Meaning, Features, SEBI guidelines for venture capital,

UNIT IV Factoring: concept, factoring vis-à-vis Bills Discounting - Factoring vis-à-vis credit Insurance Factoring vis-à-vis Forfeiting. Depository: Meaning, Process of Dematerialization and Re-materialization. Brief description of NSDL and CDSL Depository, depository participants, SEBI guidelines relating to depository system.

Note: Relevant Case Studies should be discussed in class.

Suggested Readings:

1. Khan, M.Y. (2011). Financial Services. (6th Ed). Tata McGraw-Hill.

2. Bhole, L.M, Mahakud, Jitendra (2009). *Rinanoial Institutions & Markets*. (5th Ed). Tata McGraw-Hill

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- 3. Gurusamy S, (2009) Financial Services & System. (2nd Ed). Thomson Publications
- 4. Avdhani V. A. (2017) Financial Services in India. (3rd Ed). Himalaya Publications
- 5. Gordon & Natarajan. (2016) Financial Markets & Services. (11th Ed).Himalaya Publications
- 6. Pathak, Bharti V. (2009) *The Indian Financial System-Markets, Institutions and Services*. New Delhi: Pearson Education.
- 7. Harrington S. E. (2004). *Risk management and insurance: Instructor manual.* (2nd Ed.). New York: McGraw-Hill Publishing Company.
- 8 Madura, J. (2009). Financial markets and institutions. USA: South Western College.
- 9. Mishkin, F.S., & Eakins, F.S. (2009). Financial markets and institutions. (6th Ed.). New Delhi: Pearson Education.

BBA 531-18 Industrial Relations and Labour Laws

Course Objective: The objective of this course is to acquaint the students with the two important aspects of Industrial Relations namely Social Security and Labour Welfare.

Course Outcomes:

CO1: Understand establishing & maintaining a sound relationship between the worker & the

employer.

CO2: Identify and rectify the simmering issues which might take the form of a dispute in

workplace.

CO3: Clarify the use & importance of various Acts & their uses in Industrial Relations.

CO4: Keep away from strikes & lockouts so as to enhance the economic status of the employee.

CO5: Understand the significance & functioning of Trade Unions

Unit -I

Concept of Industrial Relations: Concepts, Objectives, Scope, Importance, Participants, Essentials of effective Industrial Relations, Factors affecting Industrial Relations, Constraints of IR and approaches of IR. Trade Unions: Concept, Objectives, Types, Structure and Functions. Trade Unions Act, 1926: Objectives and definition, registration of trade unions, Rights and liabilities.

Unit -II

Industrial Conflict and Disputes: Introduction, Scope, Objectives, Manifestation of Conflict, provisions regarding strikes, lock-outs, layoff and retrenchment. Settlement of Industrial Disputes: Concept, Types, Conciliation Procedure and Practices in India; Adjudication – Concept and types; Arbitration: Approaches and types.

Unit -III

Factories Act: Object and definition, Health, Safety and welfare provisions, Provision of working hours for women and young persons. Basic Features of payment of wages Act, Minimum Wages Act and Basic features of Employees Provident Fund Act, and Payment of bonus act.

Unit -IV

I.L.O and Social Security: The concept of Labour welfare: Introduction, Evolution, Scope and Objectives, Theories and Types. Social Security, Role of Indian Labour Laws and International bodies such as ILO-Social Audit.

Note: Relevant Case Studies should be discussed in class.

Suggested Readings:-

- Piyali Ghosh, Shefali Nandan (2015), "Industrial Relations and Labour Laws", Tata McGraw Hill Edition, New Delhi.
- Monappa Arun, Nambudiri Ranjeet & Selvaraj Patturaja (2012), "Industrial Relations and Labour Laws", Tata McGraw Hill Edition, New Delhi.
- 3. Mamoria, Mamoria and Gankar (2020) "Dynamics of Industrial Relations", Himalaya Publishing House, New Delhi.
- 4. T.N. Chabbra and R.K. Suri, Industrial Relations Concepts & Issues, Dhanpat Rai & Company
- Venkata Ratnam, C.S (2006). "Industrial Relations", Oxford University Press, New Delhi.
- Srivastava, S. C (2008). "Industrial Relations and Labour Laws", Vikas Publishing House Pvt Ltd, New Delhi.
- Sinha, P.R.N., Sinha, Indu Bala and Shekhar, Seema Priyadarshini (2004), "Industrial Relations, Trade Unions, and Labour Legislation", Pearson Education, New Delhi.
- 8. Sen Ratna (2003), "Industrial Relations in India", MacMillan, New Delhi.
- 9. Davar, R S (1999), Personnel Management and Industrial Relation, Vikas Publishing House Pvt. Ltd. New Delhi.
- 10. Sivarethinamohan, R (2010), Industrial Relations and Labour Welfare- Text and Cases, PHI Learning Pvt. Ltd, New Delhi.

BBA 532-18

Organizational Change and Development

Course Objective: This course aims to introduce students to theories and concepts of organizational change and development and also it enhances the knowledge and understanding of organizational interventions terminology and provides students with the opportunity to apply the key concepts to practical organizational situations.

Course Outcomes: Upon completion of this course, students will be able to:

CO1: Develop understanding of organization change and illustrate theories of planned change.

CO2: Analyze the issues and problems arising out of organizational change initiatives.

CO3: Explain the meaning, objectives and process of organizational development.

CO4: Understand the role of various intervention strategies in organizational development.

CO5: Explain the issues in the consultant client relationship.

Unit I

Organisation Change: - Introduction, importance, forces of change and types of change. Models of change: - systems model of change, Lewin's Force Field Analysis Model, The model of change management, the process of change.

Unit II

Change & its impact: - effects of change on people, operational effects, psychological effects, social effects, people's reaction to change:- Acceptance of change, indifference, organized resistance, frustration & aggression, Reasons for resistance and Methods of minimizing resistance. Strategies of change.

Unit III

Organisation Development: - Meaning, features, objectives, History of OD, process of organizational development. OD interventions: - concept, characteristics, classification of intervention, OD interventions as tool to improve effectiveness of organization.

Unit IV

Training Experience: T-Groups, behaviour Modelling, Team building interventions, Issues in consultant client relationship.

Suggested Readings:

- Wendeel L. French, Cecil H. Bell (1999), "Organization Development" Prentice Hall
- 2. Burke W.W and Noumair, D. A. (2015), "Organization Development A Process of Learning and Change", Pearson Education
- Cummings, T. G. and Worley, C. G. (2008), "Organization Development & Change", Cengage Learning.
- 4. Bhatia, S.K (2003), "Management of Change & Organisation Development-Innovative Approaches", Deep & Deep Publications, New Delhi.
- 5. Bhattacharya, Dipak Kumar (2009), "Organization Change & Development", Oxford University Press.
- 6. Singh, Kavita (2009), "Organisation Change & Development, Excel Books.
- 7. S. Ramnarayan, and T.V. Rao (2011): OD Accelerating Learning & Transformation, Sage, New Delhi

BBA 601-18

Strategy Management

Course Objectives: The course aims at providing fundamental knowledge and exposure to the strategies at corporate level. It will help student understand the relationship amongst goals, objectives, strategies, tactics, plans, programs, procedures, rules etc.

UNITI

Strategic Management: Introduction, Nature & Scope, Need, Process of Strategic Management. Strategic Intent: Vision, Mission, Business Definition, Business Model Goals & Objectives.

Unit II

Strategy Formulation & process:

Environment Appraisal and Scanning: External & Internal Environment including PEST, Techniques for Environmental Scanning (SWOT, ETOP, Quest). Porter's Five forces Model, Methods and technique Used for Organizational Appraisal.

Unit III

Corporate Level Strategy: Concept, Stability, Expansion, Retrenchment, Combination, Strategy. Business Level Strategy: Concept, Porter's Generic Business Strategy. Strategic Choice: Concept, Process of Strategic Choice, BCG Matrix, GE Nine Cell Matrix.

UNIT IV

Strategic Implementation: Concept, Interrelationship between Formulation and Implementation, Aspects of Strategy Implementation (Behavioral Implementation, Resource Allocation). Strategic Evolution and Control: An Overview, Technique of Strategic **Evolution and Control**

Suggested Readings:

- 1. Azhar Kazmi(2007), "Business Policy and Strategic Manageent", Tata Mcgraw Hill
- 2. Jouch & Gluick, "Strategic Management & Business Policy", Tata Mcgraw Hill
- 3. Wheelen & Hunger (2008), "Strategic management & Business Policy", Pearson Education
- 4. Hill, Charles, W. L., Schilling, Melissa A., Jones, Gareth R. (2019), "Strategic Management: Theory & Cases: An Integrated Approach", Cengage Learning.

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BBA 602-18 Company Law

Course Objective: The objective of the course is to impart basic knowledge of the provisions of the Companies Act 2013. This course will provide better understanding of the different clauses of company law which a business manager must know for better decision making.

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1: Understand the basic concept and provisions of company law in business decision making.

CO2: Understand the concept of different types of companies and differentiate among them. CO3: Understand the process of formation of company and different documents required for that

CO4: Understand the process of appointment and qualification of different types of directors of company

CO5: Understand the need of different meetings and process of winding up of company.

UNIT-I

Nature of a company: Definition of a company, Characteristics of a company, Lifting the corporate veil, Company distinguished from partnership. Types of companies including one person company, small company, associate company, dormant company, producer company; association not for profit; illegal association; Formation of a company: Steps involved in the formation and incorporation of a company, on-line filing of documents, promoters, their legal position, pre-incorporation contract; on-line registration of a company.

UNIT-II

Memorandum of Association: Meaning and Importance, Form and Contents, Alteration of Memorandum.

Articles of Association: Meaning, Relationship of and distinction between MOA and AOA. Prospectus: Meaning, Definition and contents, statutory requirements in relation to prospectus.

UNIT-III

Share capital: Kinds of share capital, Alteration of share capital, Ways for raising share capital, Allotment of shares

Company Management: Classification of directors, women directors, independent director, small shareholder's director; Disqualifications, director identity number (DIN); Appointment; Legal positions, powers and duties; removal of directors; Key managerial personnel, managing director, manager;

UNIT-IV

Meetings of shareholders and board; Types of meeting, convening and conduct of meetings, postal ballot, and meeting through video conferencing, e-voting.

Winding Up - Concept and modes of Winding Up. Administration of Company Law [including National Company Law Tribunal (NCLT), National Company Law Appellate Tribunal (NCLAT), Special Courts.

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Suggested Readings/Books:

- > Singh, Avtar (2018), "Company Law" Eastern Book Co., Lucknow
- > Kuchal M.C (2017), "Modern India Company Law" Shri Mahavir Books, Noida.
- ➤ Kapoor N.D.(2017), "Company Law-Incorporating the Provisions of the Companies, Amendment Act" Sultan Chand & Sons, New Delhi
- Bagrial A.K. (2018), "Company Law" Vikas Publishing House, New Delhi.
- Ramaiya (2016), "A Guide to Companies Act" Wadhwa and Buttersworth.
- Manual of Companies Act, Corporate Laws and SEBI Guideline, Bharat Law House, New Delhi (2018)
- > A Compendium of Companies Act 2013, along with Rules, by Taxmann Publications.
- Gower and Davies (2018), "Principles of Modern Company Law" Sweet & Maxwell Publishers
- Sharma J.P.(2018), "An Easy Approach to Corporate Laws" Ane Books Pvt. Ltd., New Delhi

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BMPD 602-18 Mentoring and Professional Development

Guidelines regarding Mentoring and Professional Development

The objective of mentoring will be development of:

- Overall Personality
- Aptitude (Technical and General)
- General Awareness (Current Affairs and GK)
- · Communication Skills
- · Presentation Skills

The course shall be split in two sections i.e. outdoor activities and class activities. For achieving the above, suggestive list of activities to be conducted are:

Part – A (Class Activities)

- 1. Expert and video lectures
- 2. Aptitude Test
- 3. Group Discussion
- 4. Quiz (General/Technical)
- 5. Presentations by the students
- 6. Team building Exercises

Part – B (Outdoor Activities)

- 16. Sports/NSS/NCC
- 17. Field project.
- 18. Society Activities of various students chapter i.e. ISTE, SCIE, SAE, CSI, Cultural Club, etc.

Note: Evaluation shall be based on rubrics for Part – A & B. Mentors/Faculty incharges shall maintain proper record student wise of each activity conducted and the same shall be submitted to the department.

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BBA 611-18 Services Marketing

Course objective:

This course aims at providing understanding among the graduate students to apply service marketing concepts and strategies to the create customer value in today's highly competitive environment.

Course Outcomes (COs): After completion of the course, the students shall be able to:

CO1: Understand fundamental concepts, nature and importance of Services Marketing.

CO2: Analyze the various factors that influence service marketing.

CO3: Understand the role of customers and employees in service delivery.

CO4: Understand how and why new service development takes palce.

CO5: Understand the emerging trends in field of service marketing.

Unit I

Introduction to Services: Reasons for growth of service sector, Contribution of service sector towards Indian economy. Service characteristics, classification of services, Extended Service marketing mix. Service Quality: SERVQUAL and integrated gaps model of service quality

Unit II

Service development and design: Challenges of service design, types of new services, core and supplementary elements, new service development process, Service blueprint, Physical evidence and the Servicescape.

Unit III

Role of employees and customers: service culture, employee's role in service delivery, strategies to deliver quality services, Customer Participation: introduction to role of customer in delivering services Role of intermediaries and electronic channels.

Unit IV

Services marketing communications: services marketing triangle, Pricing approaches for services. Emerging trends in services marketing.

Recommended Books

- 1. Zeithmal A Valarie and Bitner Mary, (2016) 'Services Marketing', Tata McGraw Hill,
- 2. Lovelock, Christopher H.(2014) 'Services Marketing', Pearson Education .
- 3. Singh. P and Kaur R, (2017) 'Services Marketing', Kalyani Publishers.
- 4. Shajahan, (2010) "Service Marketing" Himalya Publishing.

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BBA 612-18 Retailing and Logistics Management

Course Objectives: The objective of this course is to make students understand the role of retailing and logistics management in overall management function and how to use that knowledge in designing effective retail strategy.

Course Outcomes: After studying this course, the students should be able to:

CO1: Understand Retail Environment, challenges and Retail formats in retailing in India.

CO2: Design Merchandise System for effective execution of retailing function.

CO3: Understand and recognize the importance of store design and apply the concepts of store design to determine store layout and merchandising.

CO5: Understand various activities in logistics system and its importance

CO6: To apply knowledge of Inventory management, Transportation, warehousing,

Packaging in designing overall strategy of Logistic Function

Unit - I

Introduction to Retailing: Meaning and Economic Significance, Opportunities in Retailing, Types of Retailers **Retailing in India:** Evolution of Retail in India, Drivers of Retail Change and Challenges to Retail Development in India.

Unit-II:

Retail formats: Food Retailers, General Merchandise Retailers, Non-Store Retail Formats, Services Retailing, and Types of Ownership

Planning and Merchandise Management for Retail Outlets: Meaning, Sales Forecasting for Merchandise Plan, Assortment Planning process, Finance and location Strategists for Retailing, Store Management Responsibilities.

Unit-III:

Recruiting & Selecting Store Employees, Socializing & Training New Store Employees Motivating, Managing & Evaluating Store Employees.

Store Layout, Design & Visual Merchandising: Objectives of Good Store Design, Store Layout. Space Planning and Merchandise Presentation Techniques.

UNIT-IV

Logistics Management:

Introduction, Objectives of logistics, Types of logistics, Role of Logistics in an Economy,

Inventory Management: Introduction, Objectives, Types of Inventory, Importance of inventory management, Different Types of Inventory Costs, Inventory Performance Measures in Logistic Management.

Note: Relevant Case Studies should be discussed in class.

Suggested Readings:

- 1. Levy, Michael and Barton A. Weitz (2003), Retail Management, Tata McGraw Hill, 5th Edition.
- 2. Sinha, P. K. and Uniyal, D. P. (2007), Managing Retailing, Oxford, 1st Edition.
- 3.Newman, Andrew J. and Peter Cullen (2007), Retailing: Environment and Operations, Thomson, 1st Edition.

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4. Pradhan, Swapna (2007), Retail Management – Text and Cases, Tata McGraw Hill, 2nd Edition.

5. Sople(2009), Logistic Management, Pearson Education India, 3rd Edition.

6. Alan Rushton, Phil Croucher, Peter Baker, The Handbook of Logistics and Distribution Management: Understanding the Supply Chain (5th Edition):.

8. Satish C Ailawadi, Rakesh Singh(2005). Logistic Management Prentice-Hall Of *India* Pvt. Limited,

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BBA 621-18 Personal Financial Planning

Course Objective - This course aims to acquaint students with the knowledge regarding personal financial planning its importance, methods and various instruments that may be considered for it.

Course Outcomes:

CO1 - To familiarise students with the concept, objectives and importance of personal financial planning.

CO2 - To enable the students to understand the implications of environmental factors

CO3 - To familiarize students with the concepts of time value of money on the personal financial statements and their use in personal financial planning.

CO4 - To enable students to identify various types of risks any individual is exposed to and how they can hedge diversifiable risk.

CO5 - To familiarise students with various instruments available for investment by an individual for achieving their personal financial goals.

Unit I

Personal Financial Planning: Introduction, features, objectives and scope of personal financial planning.

Environmental Analysis: Screening and analysis of environmental factors affecting personal financial planning.

Unit II

Time Value of Money Personal Financial Statements: Meaning and calculation of present value and future value of money. Factors affecting the time value of money and its impact on the personal financial statements.

Personal Risk Management: Meaning of risk, measurement of risk and its identification. introduction to life insurance and general insurance. Insurance planning for the individual as well as family.

Unit III

Investment Planning: Meaning, process, importance and objectives of investment planning.

Investment Instruments for Personal Financial Management: Introduction to various tax saving financial instruments, Mutual fund schemes, Fixed income securities (Government bonds, corporate debt securities, bank deposits, fixed income plans by mutual funds, post office saving schemes etc.), Capital market instruments, Money market instruments and Real

Unit IV

Retirement Planning: Meaning, nature, importance, scope and process of retirement planning

Estate Planning: Meaning, nature, importance, scope and ocumentation in estate planning

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62835/2021/IKGPTU Main Campus Suggested Readings:

- Walker, R. B and Walker, K. P. (2017) 'Personal Finance: Building Your Future', McGraw Hill Education.
- 2. Kapoor, J. R., Dlabay, L. R., Hughes, R. J. and Hart, M. M. (2020) 'Personal Finance', McGraw Hill Education.
- 3. Madura, J. (2020) 'Personal Finance', Pearson Education.
- 4. Benjamin, G. (2006) 'Intelligent Investor: The Definitive Book on Value Investing' HarperCollins Publisher, Reprinted.
- 5. Murali, S. and Subakrishna, K. R. (2018) 'Personal Financial Planning (Wealth Management)', Himalaya Publishing House.

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BBA 622-18 Direct and Indirect Tax Laws

Course Objective - To enable the students to understand the importance, implication and computation of direct and indirect taxes in India

Course Outcomes:

CO1 – The students will be familiarised with the concepts, framework and incidence of taxes in India.

CO2 - To acquaint students with the provision of the current finance act with regard to various heads of income.

CO3 – To enable students to compute the tax liability of individuals after considering their residential status, various exempted incomes, permissible deduction, clubbing of income and setting off of losses.

CO4 – To familiarize students with the concepts of Value Added Tax, excise duty and custom duty.

CO5 – To enable students to understand the concept and importance of One-Nation-One-Tax system brought in India through Goods and Services Tax.

CO6 - To enable students to understand the framework and structure of GST.

CO7 - To acquaint students with the process of tax credit and refund of GST.

UNIT I

Introduction: Meaning and constitutional framework of taxation in India. Difference between direct and indirect taxes

Introduction to Direct Tax: Basic concepts, Agricultural income and its assessment, Basis of charge, Residential status of an assesse, Exempted incomes

Income from Salaries: Meaning, Allowance and Perquisites, Standard deduction, computation of taxable salary income.

Unit II

Income from House Property: Meaning of rental income, treatment of interest on housing loan, computation of taxable income from house property

Profits and Gains from Business or Profession: Meaning, various admissible and non-admissible expenses, treatment of depreciation, copyright, patents and expenditure on research and development.

Unit III

Capital Gains: Meaning of short-term and long-term capital gains, various exempted capital gains u/s 54

Income from Other Sources; Clubbing of Income, Setting off and Carry forward of losses, Deductions u/s 80

Unit IV

Introduction and basic features of Central excise, Customs duty and Value added Tax.

Good and Service Tax: Meaning, features, advantages and history of GST in India. Goods and Services Tax Act

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GST Council and GST Network

Rates structure of GST, Scope of supply, Composition Scheme under GST, Assessment (only basic concepts), Process of tax credit and refunds

Suggesting Readings:

- 1. Mehrotra, H. C. and Goyal, S. P. (2020) 'Income Tax Law and Practice' Sahitya Bhawan Publications.
- 2. Ahuja, G. and Gupta, R. (2020) 'Practical Approach to Direct and Indirect Taxes: Containing Income Tax and GST', Wolters Kulwer.
- 3. Singhania V. K. and Singhania, M. (2020) 'Students' Guide to Income Tax Including GST Problems & Solutions', Taxmann Publications.
- 4. Gaur, V. P. and Narang, D. B. (2020) 'Income Tax Law and Practice' Kalyani Publishers.

5. Datey, V. S. (2020) 'Indirect Taxes: Law and Practice Taxmann Publications.

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BBA 631-18

Training and Development

Unit I

Training and Development:- Conceptual aspects, objectives and importance of Training and Development. Process of Training and Development: Identification of training needs, methods of need assessment.

Unit II

Designing Effective Training Program: factors affecting training design, budget for training, selecting and preparing training site, choosing the trainers, program design.

Unit III

Methods of Training: Traditional and Modern methods, Use of technology in training. Training Evaluation: Testing effectiveness of training, Introduction, Reasons for evaluation, evaluation process, outcomes used for evaluation of training, evaluation practices.

Unit IV

Employee Development: approaches to employee development, Designing development programmes. Development Methods: Case studies, Role play and Sensitivity Training, Business Games, Behavior Modelling.

Suggested Readings:

- 1. Noe, Raymond, A (2017). "Employee Training and Development" McGraw Hill.
- 2.Raymond, A. N. and Kodwani, A. D. (2018) "Employee Training and Deevelopment" McGraw Hill.
- 3. Craig, Robert (2005) "Training and Development Handbook" McGraw Hill, New York
- 4. Rajshree Shinde, Abhilasha, A. and Ramakumar, A. (2015) "Human Resource Development" Himalaya Publishing House.
- 5. N. Sambasiva Rao and Yvvsss Vara Prasad (2018), "Training and Development", Himalaya Publishing House.

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BBA 632-18

Cross Cultural Human Resource Management

Course Objective: The course has been designed to make the students aware of the changing role of HR in international organizations having large number of subsidiaries which are operating in different countries and cultures as compared to the domestic companies.

Course Outcomes:

- CO1: Understand issues, opportunities and challenges pertaining to international Human Resource Management.
- CO2: Develop competency in dealing with cross cultural situations.
- CO3: Understand the strategic and functional roles of HRM in various international contexts, especially in areas such as recruitment and selection, performance management, training, learning and development, career management, compensation, motivation and repatriation;
- CO4: Identify the role of cross-cultural leadership in managing multicultural teams.
- CO5: Understand external forces (e.g. globalisation, sociocultural changes, political and economic changes) that have the potential to shape international HRM.

Unit -I

Introduction to Cross Cultural Management:

Introduction to cross cultural management: Understanding Culture, Culture dimensions, Significance and impact of cross culture on organization, Role of culture in Strategic Decision Making. Influence of National Culture on Organizational Culture. Difference between Domestic and International Human Resource Management.

Unit-II

Shift in Culture: significance of shift in Culture, Influence of economic factors and foreign intervention on shifts in local cultures.

Comparing Culture: Cultural and behavioral differences in different countries, various models for comparing cultural- Hofstede, GLOBE Model.

Unit -III

Staffing and Training for Global Operations Global Staffing Choices: Approaches to Staffing, Transferring Staff for International Business Activities, Role of Expatriates and Non-Dean (Page)

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Expatriates. Cultural Adaptation through Sensitivity Training. Dynamics of Cross-Cultural leadership.

Unit -IV

Managing and motivating multi culture teams. Cross —cultural Negotiation & Decision making, Culture and Dispute, Resolution of Conflicts and Disputes in cross culture context, Cross-culture ethics: Ethics values across cultures and Ethics dilemma

Note: Relevant Case Studies should be discussed in class.

Suggested Readings: -

- Luthans, F. and Jonathan D. P. (20120 "International Management: Culture, Strategy and Behavior" Tata McGraw-Hill Education, New Delhi.
- Peter, J. Dowling and Denice, E. Welch (2007), "International Human Resource Management", Thomson Publishers, New Delhi.
- David .C. T. and Mark F. P. (2008) Cross-Cultural Management: Essential Concepts, Sage Publishers
- Thakur, M., Burton & Gene, E (2002). International Management. Tata McGraw Hill
- Tayeb, Monir (2005), "International Human Resource Management: A Multinational Company Perspective", Oxford University Press.
- K .Aswathappa (2012) , "International Human Resource Management", McGraw Hill, New Delhi.
- Deresky, Helen (2000), "International management: Managing across borders and cultures", Pearson Education India.
- S. C. Gupta (2006), "International Human Resource Management", Macmillan India Ltd.

Hodgetts, R. and Luthans, F. (2003). International Management. McGraw Hill Inc.

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Annexure-VI

Bachelor of Technology (Electronics & Communication Engineering (1st and 2nd semester)

Subject code: BTPH101-18
 Subject: Mechanics of Solids

Course Outcomes: At the end of the course, the student will be able to

CO1: Understand the vector mechanics for a classical system.

CO2: Identify various types of forces in nature, frames of references, and conservation laws.

CO3: Know the simple harmonic, damped, and forced simple harmonic oscillator for a mechanical system.

CO4: Analyze the planar rigid body dynamics for a mechanical system.

CO5: Apply the knowledge obtained in this course to the related problems.

2. Subject code: BTPH111-18

Subject: Mechanics of Solids Lab

CO1: Able to understand the concepts learned in the mechanics of solids.

CO2: Learning the skills needed to verify some of the concepts of theory courses.

CO3: Trained in carrying out precise measurements and handling sensitive equipment.

CO4: Able to understand the principles of error analysis and develop skills in experimental design.

CO5: Able to document a technical report which communicates scientific information in a clear and concise manner.

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3. Subject code: BTPH102-18

Subject: Optics and Modern Physics

CO1: Identify and illustrate physical concepts and terminology used in optics and other wave phenomena.

CO2: Understand optical phenomenon, such as, interference, diffraction etc. in terms of wave model.

CO3: Understand the importance of wave equation in nature and appreciate the mathematical formulation of the same.

CO4: Appreciate the need for quantum mechanics, wave particle duality, uncertainty principle etc. and their applications.

CO5: Understand some of the basic concepts in the physics of solids and semiconductors.

4. Subject code: BTPH112-18

Subject: Optics and Modern Physics Lab

Course Outcomes: At the end of the course, the student will be able to

CO1: Verify some of the theoretical concepts learnt in the theory courses.

CO2: Trained in carrying out precise measurements and handling sensitive equipment.

CO3: Introduced to the methods used for estimating and dealing with experimental uncertainties and systematic errors.

CO4: Learn to draw conclusions from data and develop skills in experimental design.

CO5: Write a technical report which communicates scientific information in a clear and concise manner.

5. Subject code: BTPH103-18 Subject: Electromagnetism

Course Outcomes: At the end of the course, the student will be able to CO1: Specify the constitutive relationships for fields and understand their important.

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CO2: Describe the static and dynamic electric and magnetic fields for technologically important structures.

CO3: Measure the voltage induced by time varying magnetic flux.

CO4: acquire the knowledge of Maxwell equation and electromagnetic field theory and propagation and reception of electro-magnetic wave systems.

CO5: have a solid foundation in engineering fundamentals required to solve problems and also to pursue higher studies.

6. Subject code: BTPH113-18 Subject: Electromagnetism Lab

Course Outcomes: At the end of the course, the student will be able to CO1: Able to verify some of the theoretical concepts learnt in the theory courses.

CO2: Trained in carrying out precise measurements and handling sensitive equipment.

CO3: understand the methods used for estimating and dealing with experimental uncertainties and systematic "errors."

CO4: Learn to draw conclusions from data and develop skills in experimental design.

CO5: Write a technical report which communicates scientific information in a clear and concise manner.

7. Subject code: BTPH104-18 Subject: Semiconductor Physics

Course Outcomes: At the end of the course, the student will be able to CO1: Understand and explain the fundamental principles and properties of electronic materials and semiconductors

CO2: Understand and describe the interaction of light with semiconductors in terms of fermi golden rule.

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CO3: Understand and describe the impact of solid-state device capabilities and limitations on electronic circuit performance.

CO4: Understand the design, fabrication, and characterization techniques of Engineered semiconductor materials.

CO5: Develop the basic tools with which they can study and test the newly developed devices and other semiconductor applications.

8. Subject code: BTPH114-18

Subject: Semiconductor Physics Lab

Course Outcomes: At the end of the course, the student will be able to CO1: Able to verify some of the theoretical concepts learnt in the theory courses.

CO2: Trained in carrying out precise measurements and handling sensitive equipment.

CO3: Introduced to the methods used for estimating and dealing with experimental uncertainties and systematic "errors."

CO4: Learn to draw conclusions from data and develop skills in experimental design.

CO5: Write a technical report which communicates scientific information in a clear and concise manner.

9. Subject code: BTPH105-18

Subject: Semiconductor and Optoelectronics Physics

Course Outcomes: At the end of the course, the student will be able to CO1: Understand and explain the fundamental principles and properties of electronic materials and semiconductors.

CO2: Understand and describe the interaction of light with semiconductors in terms of fermi golden rule.

CO3: Understand and describe the impact of solid-state device capabilities and limitations on electronic circuit performance.

Dean (PGEP) LK. Gujrai Punjab Technical University, Jalandha Kapurthala CO4: Understand the design, fabrication, characterization techniques, and measurements of Engineered semiconductor materials.

CO5: Learn the basics of the optoelectronic devices, LEDs, semiconductor lasers, and photo detectors.

10. Subject code: BTPH115-18

Subject: Semiconductor and Optoelectronics Physics Lab

Course Outcomes: At the end of the course, the student will be able to CO1: Able to verify some of the theoretical concepts learnt in the theory courses.

CO2: Trained in carrying out precise measurements and handling sensitive equipment.

CO3: Introduced to the methods used for estimating and dealing with experimental uncertainties and systematic "errors."

CO4: Learn to draw conclusions from data and develop skills in experimental design.

CO5: Write a technical report which communicates scientific information in a clear and concise manner.

11. Subject code: BTPH106-18

Subject: Optics and Electromagnetism

Course Outcomes: At the end of the course, the student will be able to understand

CO1: Identify and illustrate physical concepts and terminology used in optics and other wave phenomena.

CO2: Understand optical phenomena such as polarization, birefringence, interference, and diffraction in terms of the wave model.

CO3: Understand the importance of wave equation in nature and appreciate the mathematical formulation of the same

CO4: Acquire knowledge about the Maxwell equation and magnetic properties of materials.

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CO5: Appreciate the need for quantum mechanics, wave particle duality, uncertainty principle etc.

12. Subject code: BTPH116-18

Subject: Optics and Electromagnetism Lab

Laboratory Outcomes: At the end of the course, students will be

CO1: Able to verify some of the theoretical concepts learnt in the theory courses.

CO2: Trained in carrying out precise measurements and handling sensitive equipment.

CO3: Introduced to the methods used for estimating and dealing with experimental uncertainties and systematic "errors."

CO4: Learn to draw conclusions from data and develop skills in experimental design.

CO5: Write a technical report which communicates scientific information in a clear and concise manner.

13. Subject code: BTPH107-18

Subject: Introduction to Physics in Biotechnology

Course Outcomes: At the end of the course, the student will be able to CO1: Identify and illustrate physical concepts and terminology used in Lasers, fibre optics and other wave phenomena.

CO2: Understand the X-Rays and their applications to the ultrasounds.

CO3: Understand the importance of wave equation in nature and appreciate the mathematical formulation of the same

CO4: Appreciate the need for quantum mechanics, wave particle duality, uncertainty principle etc.

CO5: Understand the properties of magnetic materials and

superconductivity.

Dean (POEP) I.K. Gujral Punjab Technical University, Jalandhar Kapurthala 14. Subject code: BTPH117-18

Subject: Physics lab

Laboratory Outcomes: At the end of the course, students will be

CO1: Able to verify some of the theoretical concepts learnt in the theory courses.

CO2: Trained in carrying out precise measurements and handling sensitive equipment.

CO3: Introduced to the methods used for estimating and dealing with experimental uncertainties and systematic errors.

CO4: Learn to draw conclusions from data and develop skills in experimental design.

CO5: Write a technical report which communicates scientific information in a clear and concise manner.

15. Subject code: BTAM101-18
Subject: Mathematics-I
(Calculus & LinearAlgebra)

Course Objective:

The objective of this course is to familiarize the prospective engineers with techniques in calculus, multivariate analysis and linear algebra. It aims to equip the students with standard concepts and tools at an intermediate to advanced level that will serve them well towards tackling more advanced level of mathematics and applications that they would find useful in their disciplines.

15. Subject code: BTAM201-18

Subject: Mathematics-II (Differential equations)

Course Objectives:

The objective of this course is to familiarize the prospective engineers with techniques in multivariate integration, ordinary and partial differential equations. It aims to equip the students to deal with advanced level of mathematics and applications that would be essential for their disciplines.

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16. Subject code: BTAM201-18

Subject:

Mathematics-II (Differential equations)

Course Objectives:

The objective of this course is to familiarize the prospective engineers with techniques in multivariate integration, ordinary and partial differential equations. It aims to equip the students to deal with advanced level of mathematics and applications that would be essential for their disciplines.

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B. Tech. Electronics & Communication Engineering

THIRD SEMESTER

1. Subject code: UC-BTEC-301-19

Subject: Electronic Devices

Course Outcomes

At the end of this course students will demonstrate the ability to:

- 1. Understand physics of semiconductors and behavior of charge carriers within semiconductors
- 2. Understand the working of semiconductor diodes supported with mathematical explanation.
- 3. Understand the working of BJT and MOSFET with their equivalent small signal models.
- 4. Understand the chemical processes used in fabrication of integrated circuits.

2. Subject code: UC-BTEC-302-19

Subject: Digital System Design

Course Outcomes

At the end of this course student will demonstrate the ability to:

- 1. Apply concepts of Boolean algebra for handling logical expressions.
- 2. Understand working and realization of combinational circuits.
- 3. Understand working flip-flops and use them in designing of sequential circuits.
- 4. Understand fundamental concepts of logic families and architectural of programmable devices.

3. Subject code: UC-BTEC-303-19

Subject: Electromagnetic Waves

Course Outcomes

At the end of this course student will demonstrate the ability to:

- 1. Understand characteristics & wave propagation through transmission lines
- 2. Understand Maxwell's equations for electromagnetic waves
- 3. Characterize uniform plane wave
- 4. Calculate reflection and transmission of waves at media interface

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4. Subject code: UC-BTEC-304-19

Subject: Network Theory

Course Outcomes

At the end of this course student will be able to:

- 1. Analyze linear networks using network theorems.
- 2. Use Laplace transform to analyze transient & steady state response of linear networks.
- 3. Comprehend network parameters to analyze two port networks.
- 4. Realize one port networks using Foster's and Cauer's methods.

5. Subject code: BTAM-303-18

Subject: Mathematics III

Course Objective

The objective of this course is to familiarize the prospective engineers with techniques in multivariate integration, ordinary and partial differential equations and complex variables along with Probability and Correlation. It aims to equip the students to deal with advanced level of mathematics and applications that would be essential for their disciplines.

6. Subject code: UC-BTEC-311-19 Subject: Electronic Devices Lab

Course Outcomes

At the end of this course student will demonstrate the ability to:

- 1. Realize use of diodes in circuits with proper understanding to their working.
- Understand characteristics & working of BJT in different configurations.
- 3. Understand characteristics & working of MOSFET in circuits.
- 4. Think and design working circuits based on diodes, BJTs and MOSFETs.

7. Subject code: UC-BTEC-312-19 **Subject:** Digital System Design Lab

Course Outcomes

At the end of this course student will demonstrate the ability to

1. Realize combinational circuits using logic gates.

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- 2. Realize sequential circuits using logic gates.
- 3. Write & simulate VHDL programs for combinational & sequential circuits.
- 4. Think and design working projects using digital 74XX ICs.

FOURTH SEMESTER

1. Subject code: UC-BTEC-401-19

Subject: Analog Circuits

Course Outcomes

At the end of this course student will be able to:

- 1. Understand the biasing of transistors and analyze BJT/FET amplifiers
- 2. Analyze various rectifier and amplifier circuits
- 3. Analyze sinusoidal and non-sinusoidal oscillators
- 4. Understand various types of Power Amplifiers

2. Subject code: UC-BTEC-402-19

Subject: Microprocessors and Microcontrollers

Course Outcomes

At the end of this course student will demonstrate the ability to:

- 1. Understand architecture & functionalities of different building block of 8085 microprocessor.
- 2. Understand working of different building blocks of 8051 microcontroller.
- 3. Comprehend and apply programming aspects of 8051 microcontroller.
- 4. Interface & interact with different peripherals and devices.

3. Subject code: BTCS-301-18

Subject: Data Structures and Algorithms

Course Objectives:

The objective of the course is to impart the basic concepts of data structures and algorithms, to understand concepts about searching and sorting technique and to understand basic concepts about stacks, queues, lists, trees and graphs, data structures.

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4. Subject code: UC-BTEC-403-19 Subject: Signals & Systems

Course outcomes:

At the end of this course students will demonstrate the ability to:

- 1. Mathematically characterize different types of signals and systems.
- 2. Analyze the behavior of linear-shift invariant systems.
- 3. Apply concepts of Fourier and Laplace Transforms to analyze continuous-time signals and systems.
- 4. Investigate discrete-time signals and systems using Discrete-Time Fourier and Z-Transforms and simple Probability concepts.
 - 5. Subject code: HSMC 122-18

Subject: Universal Human Values-2: Understanding Harmony

6. Subject code: EVS-101-18

Subject: Mandatory Course: Environmental Sciences

Course Outcomes:

- 1. Students will enable to understand environmental problems at local and national level through literature and general awareness.
- 2. The students will gain practical knowledge by visiting wildlife areas, environmental institutes and various personalities who have done practical work on various environmental Issues.
- 3. The students will apply interdisciplinary approach to understand key environmental issues and critically analyze them to explore the possibilities to mitigate these problems.
- 4. Reflect critically about their roles and identities as citizens, consumers and environmental actors in a complex, interconnected world

7. Subject code: UC-BTEC-411-19 Subject: Analog Circuits Lab

Course Objective

This laboratory course deals design & analytical concepts of various analog circuits like BJT/FET circuits, feedback amplifiers, oscillators, power amplifiers.

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8. Subject code: UC-BTEC-412-19

Subject: Microprocessors and Microcontrollers Lab

Course Objective

This is laboratory course meant to write programs using 8085/8086 microprocessor and learn interfacing using 8051 microcontoller for general operations.

9. Subject code: BMPD-341-18

Subject: Mentoring and Professional Development*

FIFTH SEMESTER

1. Subject code: UC-BTEC-501-19

Subject: Analog and Digital Communication

Course Outcomes

At the end of this course students will demonstrate the ability to:

- 1. Analyze and compare different analog modulation schemes for their efficiency and bandwidth
- 2. Analyze the behavior of a communication system in presence of noise
- 3. Investigate pulsed modulation system and analyze their system performance
- 4. Analyze different digital modulation schemes and can compute the bit error performance

2. Subject code: UC-BTEC-502-19
Subject: Digital Signal Processing

Course Outcomes

At the end of this course students will demonstrate the ability to

- 1. Represent signals mathematically in continuous and discrete time and frequency domain
- 2. Get the response of an LSI system to different signals
- 3. Design of different types of digital filters for various applications

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3. Subject code: UC-BTEC-503-19 **Subject:** Linear Integrated Circuits

Course Outcomes

At the end of this course students will demonstrate the ability to:

- 1. Infer AC & DC analysis of constituent blocks of Op-Amp.
- 2. Interpret and elaborate the characteristics and parameters of Op-Amp circuits.
- 3. Analyze and design linear and non-linear applications using op-Amp circuits.
- 4. Explain working and applications of Timer, PLL and Voltage regulators ICs.

4. Subject code: UC-BTEC-504-19 Subject: Control Systems

Course Outcomes

At the end of this course students will demonstrate the ability to

- 1. Characterize a system and find its study state behaviour
- 2. Investigate stability of a system using different tests
- 3. Design various controllers
- 4. Solve liner, non-liner and optimal control problems

5. Subject code: BTMS-YYY18
Subject: Project Management

Course Outcomes

At the end of this course student will demonstrate the ability to:

- 1. Study the basic concepts of Project Management.
- 2. Learn about Project selection and organisation.
- 3. Understand Project planning and scheduling.
- 4. Learn about Project Monitoring, control and performance.

6. Subject code: UC-BTEC-901A-19 Subject: AC & DC MOTORS

Course Outcomes: After undergoing this course students will be able to

- I. Understand the principle of energy conversion.
- II. Explain the working principle, construction and applications of DC motors.
- III. Explain the working principle, construction and applications of AC motors.
- IV. Gain knowledge about the fundamentals of Special motors.

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7. Subject code: UC-BTEC-901B-19 Subject: SENSORS AND TRANSDUCERS

Course Outcomes:

After undergoing this course students will be able to

- I. Understand the principle and requirements of sensing and transduction.
- II. Acquire knowledge of various resistive and inductive transducers and sensors.
- III. Have understanding of various capacitive and thermal sensors.
- IV. Understand fundamentals of various magnetic sensors and other miscellaneous sensors.

8. Subject code: UC-BTEC-901C-19

Subject: SATELLITE COMMUNICATION

Course Outcomes

After undergoing this course students will be able to

- I. Interpret & define basics of Satellite communication, understand the complete link design along with and the interference effects on it.
- II. Understand various fixed and demand assignment multiple access techniques.
- III. Understand the special purpose communication satellites.
- Have knowledge of laser satellite communication and CATV system.

9. Subject code: UC-BTEC-901D-19

Subject: ANTENNA THEORY & DESIGN

Course Outcomes

After undergoing this course students will be able to

- I. Understand the concept of antenna and its parameters, current distribution of short dipole and half wave
- II. Acquire the knowledge of various types of antenna arrays.
- III. Analyze the Field Equivalence principle and various aperture and microstrip antennas.
- IV. Develop understanding of waveguides and transmission lines.

Subject code: UC-BTEC-901E-19 Subject: FUZZY LOGIC SYSTEMS

Course Outcomes

After undergoing this course, students will be able to

I. Understand the learning and working of basic artificial neural models and their network topologies.

II. Get exposure of feed forward neural networks.

III. Gain knowledge about basic learning laws of various neural models.



IV. Learn the basic concepts and working of fuzzy Logic sets and components to develop and implement a basic trainable neural network or a fuzzy logic system for any application.

11. Subject code: UC-BTEC-901F-19

Subject: JAVA Programming

Course Outcomes

After this course the students will be able to:

- 1. Apply the concepts and basics of JAVA
- 2. Demonstrate the knowledge of operators and control statements
- 3. Ability to learn about Inheritance, Interface, Applets.
- 4. Learn about JAVA database connectivity

12. Subject code: UC-BTEC-511-19

Subject: Analog and Digital Communication Laboratory Course Outcomes

At the end of this course student will demonstrate the ability to:

- 1. Study and verify the characteristics and output waveforms of AM, FM, PCM
- 2. Study and compare noise in AM and FM systems
- 3. Investigate the output responses of PAM, PCM, PSK, FSK, MSK.

13. Subject code: UC-BTEC-512-19

Subject: Digital Signal Processing Laboratory

Course Outcomes

At the end of this course student will demonstrate the ability to:

- 1. Write programs to develop various signals.
- 2. Write programs to generate standard sequences.
- 3. Develop programs to verify convolution
- 4. Develop programs to design various filters.

14. Subject code: UC-BTEC-513-19

Subject: Linear Integrated Circuits Laboratory

Course Outcomes

At the end of this course student will demonstrate the ability to:

- 1. Study and investigate the configurations of Different al amplifiers.
- 2. Measure the performance parameters of am OP-Amp.
- 3. Use Op-Amps for various applications.

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SIXTH SEMESTER

1. Subject code: UC-BTEC-601-18
Subject: Wireless Communication

Course Outcomes

At the end of this course students will demonstrate the ability to:

- 1. Understand the basic elements of Cellular Radio Systems and its design
- 2. Learn about the concepts Digital communication through fading multipath channels
- 3. Understand various Multiple Access techniques for Wireless communication
- 4. Know about the Wireless standards and systems

2. Subject code: UC-BTCS-504-18 Subject: Computer Networks

Course Outcomes

At the end of this course students will demonstrate the ability to:

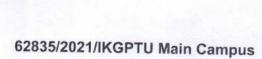
- 1. Explain the functions of the different layer of the OSI Protocol
- 2.Describe the function of each block of wide-area networks (WANs), local area networks (LANs) and Wireless LANs (WLANs)
- 3. Develop the network programming for a given problem related TCP/IP protocol
- 4.Learn about DNS DDNS, TELNET, EMAIL, File Transfer Protocol (FTP), WWW, HTTP, SNMP, Bluetooth, Firewalls using open source available software and tools.
 - 3. Subject code: UC-BTEC-603-18
 Subject: Optical Fibres and Communication

Course Outcomes

At the end of this course students will demonstrate the ability to:

- 1. Understand the basics of Optical Communication and Optical fibres
- 2.Learn about the Optical Transmitters and Receivers
- 3. Explain the Light wave Architecture and systems
- 4. Ability to explain the modulation in Optical Communication

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4. Subject code: UC-BTEC-604-18

Subject: Microwave and Antenna Engineering

Course Outcomes

At the end of this course students will demonstrate the ability to:

- 1. Understand the working and operation of various Microwave Tubes and Microwave Solid-state devices.
- 2. Learn about various important Microwave Components and the Microwave measurements that can be carried out.
- 3. Explain the basic concepts and types of Antennas and its regions.
- 4.Describe the important concepts of Antenna Arrays and Antenna Aperture.

5. Subject code: UC-BTEC-902B-18
Subject: Power Electronics

Course Outcomes

At the end of this course students will demonstrate the ability to:

- 1. Attain the ability and to handle the concept of construction and characteristics of Power semiconductor devices and fundamental of thyristors and family.
- 2. Demonstrate and build a various single phase AC-DC power converter circuits and understand their applications.
- 3. Illustrate the operating principle and construct a various types of DC-DC converters.
- 4. Simulate power electronic converters and their control scheme.

6. Subject code: UC-BTEC-902B-18
Subject: Internet of Things

Course Outcomes

At the end of this course students will demonstrate the ability to:

- 1.Understand general concepts of Internet of Things.
- 2. Recognize various devices, sensors and applications.
- 3. Apply design concept to IoT solutions and analyze various M2M and IoT architectures (Analyze).
- 3. Create IoT solutions using sensors, actuators and Devices.

7. Subject code: UC-BTEC-902C-18 Subject: Mobile Adhoc Networks

Course Outcomes

At the end of this course students will demonstrate the ability to

1. Understand the principles of mobile ad hoc networks, and their models.

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- 2. Understand and develop information dissemination protocols for mobile adhoc networks
- 3. Analyze the challenges in designing, routing and security in mobile adhoc networks.

8. Subject code: UC-BTEC-902D-18

Subject: Mobile Communication & Networks

Course Outcomes

At the end of this course students will demonstrate the ability to

- 4. Understand the fundamentals and concept of modern mobile communication.
- 5. Attain the ability to handle the concept and management of cellular system.
- 6. Understand various standards, designs and layers of mobile communication.

9. Subject code: UC-BTEC-902E-18

Subject: Artificial Neural Networks

Course Outcomes

At the end of this course students will demonstrate the ability to:

1. Understand generic machine learning terminology.

2. Understand the mathematical foundations of neural network models

3. Have a broad knowledge in Fuzzy logic principles and will be able to determine different methods of Defuzzification.

10. Subject code: UC-BTEC-611-18

Subject: Optical Fibres and Communication Lab

Course Outcomes

At the end of this course students will demonstrate the ability to:

- 1. To perform experiments based on optical communication in order to understand in depth concepts of latest communication system.
- 2. To study various types of optical sources and light detectors
- 3. To know methods of slicing and connecting techniques of optical fibres
- 4. To study different types of losses in optical fibres.
- 5. To know applications of optical fibres.

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11. Subject code: UC-BTEC-612-18

Subject: Microwave and Antenna Engineering Lab

Course Outcomes

At the end of this course students will demonstrate the ability to:

- 1. Learn about general Microwave components and Microwave bench.
- 2. Measure common parameters related to Microwave Oscillator(s).
- 3. Determine frequency and wavelength of waveguides.
- 4. Measure and plot radiation patterns of various types of Antennas.

12. Subject code: UC-BTEC-631-18

Subject: Project - I

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Sr.No.	Name of Industry/ Institution	Area of Collaboration	Status
1	Internshala	Internshala is India largest online internshi portal that offers internships to students i all domains such as engineering management, applied arts, architecture design, law, hotel management, and se forth.	Campuses and affiliated colleges in securing
2	AIESEC	It offers global internship opportunities to IKG- PTU students in corporate from various industries across the world. It is stipend based internship programs abroad, which was formulated especially for engineering & management students.	Information seminars were organized at IKG- PTU main Campus and affiliated colleges regarding overseas internship opportunities. One
3	NIELIT	It offers student training programs in the field of IECT. MOU aims to equip the students with necessary knowledge and skill for enhancing employability	Students (45 students) from IKG-PTU Campuses and affiliated colleges got Internship at NIELIT, Ropar at concessional rate through this collaboration.
4	Huawei	To setup Huawei ICT Academy at University Campus	ICT Academy at University Campus was established. Huawei certifications were offered at concessional rate to the students. Also, one student from university main campuses competed in Huawei coding
	Infosys - Campus Connect	Enriching education process and enhancing the quality of education in the file of IT	rompetition at China. FDP in collaboration with Infosys was organized. About 24 Faculty members from university campuses and affiliated colleges attended the said FDP

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6	TiE (The Indus Entrepreneur)	Industry Academia Collaboration for Entrepreneurship and Startup.	Various activities including Entrepreneurship awareness camps, B plan Competition, pitching sessions were organized under this collaboration
7	Google Asia Pacific PTE Ltd.	Google offered the Android Development with Kotlin course. This course teaches the fundamental skills needed to build Android apps using Kotlin.	Initially the FDP on Kotlin course was organized for faculty of IKG-PTU campuses and affiliated colleges. About 80 faculty members attended the said FDP Training programme for students on Kotlin course Will be organized in near future.
8	Friends Union for Energizing Lives (FUEL)	It provides skills training to students of IKG-PTU campuses and to enable them to better understand and enhance their jobrelated skills	Under this collaboration preplacement preparation on Aptitude AI and soft skills was provided to students of IKG-PTU Campuses and affiliated colleges. About 450 students gained training through this collaboration
9	Amritsar Founders	Collaboration regarding Internship, Placement and startup support by the member industries of Amritsar Founders	Under the said collaboration Internship drive was organized at IKG-PTU main campus were member industries of Amritsar Founder participated and selected 4 students for internship. Online expert talks by CEO's of member industries were also organized.

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DETAILS OF MOUS

Sr. No.	University/ Institute Name	Country	Area of Collaboration
_	Thompson Rivers University	Canada	a. Bachelor of Engineering transfer program; b. Bachelor of Business Administration transfer program Trades preparatory program offered in Punjab for students wishing to undertake trades training at TRU in Kamloops
N	University of the Fraser Valley	Canada	 a. Exchange visits of faculty, researchers and administrative staff b. Exchange of student, student visitation, and the development of study abroad and short – term programs c. Assessing the potential for transfer and degree completion programs. d. Organising of conferences, seminars, sports events, symposia or lectures. e. Exploration of common research interests and other forms of academic collaboration. -do- Articulation program in Bachelor of Computer Application to Bachelor
и	Trent University	Canada	 a. Development of pathway articulation agreement of undergraduate students. b. Exchange of faculty members and researchers. c. Exchange of students d. Exchange of information and academic resources that are of mutual interest. e. Collaboration research, joint symposia, guest lectures and short-term education abroad programming.
4	Seneca College of Applied Arts and Technology	Canada	 a. Articulation program in Bachelor of Commerce and Technology. b. Exchange of scholars and students c. Collaborative applied projects, d. Participation in workshops & Seminars. e. Other form of collaboration in the mutual interest.
<i>υ</i> 1	Yorkville University	Canada	 a. Articulation agreements and academic pathways for IKGPTU students, b. Joint marketing activities including Recruitments Fairs, Open Houses, Agent Nights, c. Joint academic events and activities, including faculty/ administrators, professional development student exchanges and class scheduling, d. Information exchanges including the result of teaching and research collaboration, and e. Any other activities viewed to be mutually beneficial. Articulation programme in Business Administration (BBA).
6	Vancouver Island University	Canada	a. Visits and exchange of members of the faculty, staff and students for the purpose of study, teaching and research.b. Collaborative research projects and joint initiatives such as seminars and lecturesc. Visiting scholars

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Joint educational, training/or research activities Exchange of invitations to faculty, research personnel, graduate and undergraduate students (hereinafter referred to as "Scholars") for lectures, visits and sharing of experiences Exchange of invitations to Scholars for participation in conferences,	Progression agreement for M.Sc. and MBA programmes	Any other areas which may promote the academic interests of the Parties in research and/or teaching.	Development of progression routes from courses of IKGPTU to courses leading to awards of NTU.	Development of joint research projects.	Exchange of information on course development and teaching methods. Exchange of staff and students.	Opportunities for full-degree fee paying undergraduate/ graduate study.	Development of joint initiatives with partner institutions, including joint or	Joint projects related to applied research, teaching and faulty development	Undergraduate and graduate student mobility	Exchange of faculty members and administrators.	Any other activities to be mutually beneficial.	collaboration;		Joint academic events and activities including faculty/ administrators	Nights;				Exchange of Students	Exchange of Faculty and Administrators	Agreement for International Student Exchange Appendix to the Memorandum of Understanding.	Special short-term academic programs.	Exchange of academic materials and other information; and	Participation in seminars and academic meetings:		Mobility of faculty and/or staff:	Mobility of graduate and/or undergraduate students:	Conduct of Joint Research,	Exchange of Students,	Exchange of Faculty and Administrators,	Exchanging information, publications, and other material of common interest.

c) To give teachers likely improvement in their End improvement any other institution is To recommend any other students, faculty and start in the commend is linked to the CEFR into its linked to the CEFR into its internationally reprogrammes joint confirmation of the confirm	University of Nottingham United Kingdom a. Learning and teaching to an award. b. Exchange of students in programme c. Exchange of members of documents in the condition through in the condition of the condition through in the condition through its condition through in the condition through its co	South Korea	Asia Pacific University of Malaysia a. Technology & Innovation (APU) d. e. f.	ופ West of United Kingdom	14 Northern Illinois University, USA Academic Exchan Dekalb, Illinois
Institutions and Institution they come in contact with; To Motivate the students of IKGPTU to learn English; To give teachers IKGPTU an opportunity for professional development by improvement in their English language skills; To organize Cambridge English programmes and courses for students and faculty of other institutions having link with IKGPTU; To recommend any other courses proposed by Cambridge English for the students, faculty and staff of IKGPTU and other Institutions; To introduce a standardised international testing system for English which is linked to the CEFR international benchmark; To offer opportunity for students of IKGPTU, to gain achievement in English which is internationally recognised; To organise joint conference /workshop /seminar /short term training programmes related to English Language Teaching.	Learning and teaching including the development of a programme leading to an award. Exchange of students for a given period through a recognised exchange programme Exchange of members of the universities Exchange of documentation and research material Co-ordination through their respective offices in joint or collaborative research projects	Academic Exchange programmes	Articulation agreements and academic pathways for students of both the Institutions. Joint marketing activities including Recruitment Fairs, Open Houses. Joint academic events and activities, including faculty/administrators professional development, student exchanges and class scheduling. Information exchanges including the results of teaching and research collaboration. Articulation programmes. Any other activities viewed to be mutually beneficial.	Letter of Recognition in Bachelor Business Administration (BBA).	 d. Exchange of Scholars for study, training and research Academic Exchange programmes

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University of		Alabama		
Romania		USA	Thailand	
e) d) (; b) a)	→	e) d) a)) () () () () ()	g) → e)
Exchange of faculty members, administrative officers and/or researchers with the objective of offering courses, training programme and realizing research projects in areas mutually agreed upon by both universities in accordance with the procedures and expectations established by each university and specific departments. Support reciprocity in university extension activities of common interest. Exchange of books, scientific publications, study programs, academic projects, course information, seminars, conferences and any other data and information of common interest. Develop joint research projects and joint publications. All joint activities are realized through the mutual agreement and clearly established conditions and mutual obligations of the appropriate university entity.	Other activities of mut	Exchange visits of faculty member, researchers, administrative staff for the purpose of research, teaching and development. Exchange of Students, student's visitation, further study abroad and permitting students for short-term programs. Assessing the potential for transfer and degree completion programs. Organization of joint conferences, seminars cultural programs. Exchange of information in fields of mutual interests.		

DETAILS OF MOUS

Sr.	University/ Institute	state		Area of Collaboration
No.	Name	-		
_	SPHAERA PHARMA Private Limited	New Delhi	a	a) The specifics regarding the areas of co-operation will be defined and modified from time to time by the Joint Steering Committee (JSC) set up for the purpose.
			b)	b) SPHAERA PHARMA may provide inputs from industry perspective for upgradation or updating of
2	Guru Ravidas	Hoshiarpur	a)	a) Exchange of information in any area of mutual interest.
	Ayurved University		ь.	Exchange of faculty/officers/research scholars/students.
			c)	Health awareness, clinics, clinical trials, camps, seminar etc under the ambit of
			d)	d) Design & delivery of new courses in the field of AYUSH to be jointly disseminated locally & globally.
			e)	e) Joint academic events and activities, including faculty/administrators professional development,
				student exchanges and class scheduling;
			Ð	development of joint research projects;
			9	Cultural exchange programmes;
			Ð	h) any other areas which may promote the academic interests of the Parties in research and/or
				teaching

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Kapurthala



I.K. GUJRAL PUNJAB TECHNICAL UNIVERSITY

Estd. Under Punjab Technical University Act, 1996 (Punjab Act No. 1 of 1997)

Ref. No.: IKGPTU/Reg/NF/2753

Dated: 15.09.2021

NOTIFICATION

Sub: Scholarship Scheme for International Students offered by IKGPTU for Session 2021-22 in University Main Campus and its Constituent Campuses.

As approved by Vice Chancellor, the enclosed Scholarship Terms and Conditions and Scholarship Scheme for Foreign/International Students for all the courses at IKGPTU Main and Constituent Campuses is hereby notified.

> (Jaspreet Singh, IAS) Registrar |

Dated:

Endst. No. IKGPTU/Reg/NF/2754-2757

A copy is forwarded to the following officers for information please.

I/C VC Secretariat for kind information of Hon'ble Vice-Chancellor

2. All HoDs/ In-charge (Non-Teaching)

3. Director (Main Campus): To inform all Deputy Dean (Faculty), HoDs (Teaching) and In-charge, Constituent Campuses

4. In-charge (ITS): For upload on website

(Jaspreet Singh, IAS) Registrar

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Scholarship scheme for International Students in IKGPTU Campuses.

Scholarship for students seeking admission from SAARC Countries except Bangladesh.

Marks in 12th / Bachelor's Degree /Qualifying degree	Scholarship on Tuition Fee
Up to 60%	30%
60.01% to 89.99%	50%
90% and Above	100%

Scholarship for students seeking admission in UG courses from Bangladesh.

CGPA in 12th/Qualifying exam	Scholarship on Tuition Fee
Up to 3.49	30%
3,50 to 3.99	50%
4.0 and Above	100%

Scholarship for students seeking admission in PG Courses or UG Leet Courses from Bangladesh.

CGPA in Graduation/ Qualifying degree all PG programs	Scholarship on Tuition Fee
Up to 3.2/4	30%
3.21 - 3.6	50%
3.61 and above	100%

REST OF WORLD (NON - SAARC COUNTRIES)

Marks in Qualifying degree	Scholarship on Tultion Fee
Up to 75%	30%
75.01% to 89.99%	50%
90% and Above	100%

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July 2000

Terms and conditions for the Scholarship

- 1. Grant of Scholarship is subject to verification of original transcripts, certificates and other documents as required by the University at the time of reporting of the student at the University.
- 2. In case, an applicant is eligible for Scholarship scheme as well as for any other monetary benefit under any other scheme or policy of IKGPTU, then he / she has to opt for only one scheme of his/her choice.
- 3. In addition to IKGPTU Scholarship, if a student gets scholarship from any Government / NGO / any other organization, then IKGPTU Scholarship will be restricted to amount obtained by subtracting scholarship received from Government / NGO / any other organization from tuition fee.
- 4. If a student earlier admitted for a programme under scholarship scheme, later on applies for programme transfer; the scholarship would be applicable as per the scholarship scheme applicable on changed programme.
- 5. Scholarship will be applicable on Tuition fee (per semester) for standard duration of the programme. It would not cover fee for any other fee component / facilities like Backlog / re-appear / Make up fee etc.
- 6. If any applicant is having qualifying degree from a system other than percentage system, in all such cases applicant shall have to bring a certified copy of formula of conversion from CGPA/Grade into percentage.
- 7. In case student is found guilty in any untoward activity, University reserves the right to cancel continuation of scholarship of such student.
- 8. Scholarship on the basis of performance in qualifying exam/degree shall be provided for first one year (two semesters) while studying in IKGPTU. However to continue the same percentage of scholarship, student shall have to maintain 75% marks in his/her present programme of study.
- 9. All decisions of University regarding this policy and its execution shall be binding to all.
- 10. University reserves the right to make any changes in policy at anytime.

11. All disputes shall be subject to courts of Kapurthala jurisdiction.

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Kapurthala

Antes.

A REPORT ON GREEN AUDITOF I.K. GUJRAL PUNJAB TECHNICAL UNIVERSITY, JALANDHAR, DISTT. KAPURTHALA, PANJAB



Submitted by

PRAMOD K. SHARMA AND CO.

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> Dean (PSEP) I.K. Gujral Punjab Technical University, Jalandhar Kapurthala

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INTRODUCTION: GREEN AUDIT

BACKGROUND

Criterion 7.1.2 under Criterion 7 i.e. "INSTITUTIONAL VALUES AND BEST PRACTICES"Of Guidelines for National Assessment and Accreditation Council (NAAC) Accreditation checks Environmental Consciousness and Sustainability/Alternate initiative taken by the institute. Green audit is a tool which not only checks Environmental Consciousness and Sustainability/Alternate Energy initiatives but also suggests the improvement practices can be adopted

GREEN AUDIT

The last century observed increased use chemical and petroleum product lead to degradation of environment. Restoration of degraded environment and sustaining it for future generation is global challenge. Now it is time for academic leaders to take initiative setup an example for society to follow.

The academic activity of delivering and grasping knowledge through an education system need infrastructure. The infrastructure consists of building, teachers and other facility like library and laboratory. These as a whole creates conducive environment for academic activity.

The term "Green" generally misunderstood with natural greenery, eco-friendly or not damaging the environment. Whereas "Green" here green refers to sustainability i.e. using all the resources without comprising on the right to uses these resources by generation to come.

The campus Green audit has been introduced NAAC accreditation in recent years. In adherence to this requirement the University management intended to go for Green audit of the campus. A campus Green audit is both a summary and a report card for a campus and a way to evaluate where and how resources are being used. A Green audit is also the first step in being able to quantify whether or not current and/or future green efforts are actually making a difference. As such, a green audit is the beginning of the sustainability planning process. The results can be used

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to quantify what kinds of impacts the campus community has on the environment and what steps the University can take to reduce these impacts.

By this exercise it is anticipated that this will serve as a guide for educating people on the current practices and resource use as well as provide direction to the user to attain sustainability.

A comprehensive Green audit will ensure planned, efficient application of capital and operational budgets for University buildings, to ensure:-

- · Maximized useful life of each facility
- · Protection of assets
- · Cost savings over the long term
- Enhanced Public safety
- Reduced disruption of services and greater efficiencies

The process of "Green Audit" is systematic observation of system under study, identifying the gaps in system, quantifying them for recording and analysis. There is no true standard for conducting "Green Audit" each consultant differs in content as well as process.

The overall objective of Green Audit has five fold:

- To introduce management to real concerns of environment and its sustainability
- . To analyze the pattern and extent of resource use on the Campus
- · To establish a baseline data to assess future sustainability plans
- To make the University management a more environmentally sustainable institution of higher learning
- To bring out a status report on environmental compliance
 It is hoped that the results presented in this audit will serve as a guide for
 educating people on the current practices and resource use at University force all
 the stack holders for new initiatives.

COMPONENT OF GREEN AUDIT

A Green audit involves examining a facility on many different levels and results in specific recommendations. A Greene valuation carried out to determine status of the following:

The property and Maintenance Practices

Water management

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- Energy use and its management
- Solid waste management
- Heat island impact
- Carbon accounting
- Occupational health and general safety of users

THE GENERAL CONDITION OF AN EXISTING PROPERTY

Building deteriorates with time good maintenance practices upkeep the property in its original form. A general assessment of existing properties is obtained for commercial real estate projects to determine current conditions, immediate improvement needs, and replacement reserve recommendations. The property condition analysis determines the structural and operational integrity of real estate collateral and estimates the repair, replacement and reserve requirements that impact cash flow for operating expenses and debt service coverage

TO IMPLEMENT HOUSEKEEPING AND MAINTENANCE PRACTICES AS PER GREEN BUILDING NORMS

It might be possible that the constructed property is not a Green rated property. But implementing Green practices in Housekeeping and Maintenance can enhance occupant health, happiness and well-being.

ENERGY AUDIT & ENERGY MANAGEMENT

Energy Audit will help your business in following ways

- Use less Energy
- Deferred Maintenance and Increased system Reliability
- Improve Comfort and Productivity of Staff

WATER MANAGEMENT

Water resource management is the activity of planning, developing, distributing and managing the optimum use of water resources. It is a sub-set of water cycle management. Ideally, water resource management planning has regard to all the competing demands for water and seeks to

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allocate water on an equitable basis to satisfy all uses and demands. As with other resource management, this is rarely possible in practice

PURPOSE OF WORK

This work is a systematic, independent system verification process of objectively obtaining and evaluating audit evidence to determine whether institute is meeting Criterion 7.1.2 of Guidelines for National Assessment and Accreditation Council (NAAC) Accreditation, which checks Environmental Consciousness and Sustainability/Alternate initiative taken by the institute

SCOPE OF WORK

Walk-through condition study of the property to evaluate structural integrity, capacity, condition and life expectancy, and efficiency of major systems (including but not limited to: mechanical, electrical, plumbing and roof components).

- Identification of recent or on-going improvements at the property (e.g. face lifts, new windows and doors, etc.) that is completed, underway, or anticipated.
- Assessment of site conditions: maintenance, paving, curbs, sidewalks, drainage, landscaping, Fire shifty, universal design etc.
- Compliance with applicable codes, ordinances and regulatory requirements; confirmation of status of building, occupancy and applicable operating permits and licenses necessary for the intended use of the property.
- General conformance to IS 4563:1987 Recommendations for Building and Facility for physically handicapped.
- General conformance to NBC Part-4 (Vol.-1) Recommendations for Fire and lift safety.
- Identification of possible environmental concerns (e.g., the existence of asbestos in the building and plans of abatement).
- Suggestions for additional investigations or comprehensive analyses of possible concealed conditions as external observation warrants.
- Study of the existing system of Housekeeping and Maintenance practices and identification of possible improvement.
- Suggest and alter the existing system of Housekeeping and Maintenance practices with green house keeping system.
- Site Visit to understand existing energy system, process and review of facility equipment and systems with staff, collect energy usage and equipment data. The systems studied and assessed as part of the Energy Audit and Management Strategy devising process included the following:
- HVAC Systems: Split ACs, Cassette ACs
- Lighting Systems: TFL Lights and CFL Bulbs.
- Equipment like computers etc.
- Architectural Features: Glazing, Doors
- Develop inventory of all energy use equipment grouped by process

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- Use a portable power meter, data loggers and available with us to verify energy use.
- Comparison of energy use data with annual energy bills to verify data.
- Development of energy conservation strategies.
- Developing system of energy accounting and implementing the same.
- Site Visit to understand existing water supply drainage and sewage system with end use.
- Develop inventory of all water consuming areas. Grouped them according to use and disposal of water.
- Use a portable meter and other measuring system to verify water end use.
- Comparison of water use with standards.
- Development of water conservation strategies.

Developing system of water accounting and implementing the same. Client's input

The client will provide the following information:

- · Facility O&M manuals & site drawings.
- Specification data for all major equipment (i.e. pumps curves, performance data).
- Copy of recent 12 months energy bills (electric, natural gas and fuel oil) and monthly energy bill for accounting.
- List of all major equipment with specification
- Copy of recent energy bills (electric, natural gas, water and fuel oil) and monthly energy bill for accounting.
- Insure hindrance free accessibility for site

LIMITATIONS

We rely on the accuracy of any information provided by Client in the performance of our services, and will not be held responsible for errors or inaccuracies contained in information provided to us.

Detailed building energy simulations and audit will not be performed. The study will employ techniques that rely on historical information compiled over the years from similar facilities. Individual building performance will not be modeled in great detail. Rather, building type, size and occupancy will be used to form a rough calculation model of the building (or specific equipment) energy usage for use in determining the estimated results of energy conservation measures. Likewise, costs of addition and alteration required due to this service will also be based on historic data compiled from similar installations, and engineering opinion



METHODOLOGY

The work is executed in two phase

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Phase I -General introduction and Data collection

- A walk through audit was conducted to familiarize with property and its use.
- Interview of management to understand system in use.
- Bills of water and Fuel used in University along with site plan property are collected
- Photography of property was done to collect evidence of existing system.
- Portable equipment are used to check quality of electricity, status of light, ventilation, noise, Earthing and heat island effect.

Phase II - Data analysis and Recommendation

The collected data correlated with with standard regulation and/or best practices io industry. Stagy and recommendations were framed to improve and enhance the existing system with relevant IS code, standard regulation and/or best practices ionindustry.

REPORT ORGANIZATION

Submit report after each audit. This report contain

- Introduction
- Overview of Current Systems in Place
- Data analysis and findings
- Recommendations recommendations were framed to improve and enhance the existing system.

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PROJECT DETAIL

I. K. Gujral Punjab Technical University (IKGPTU), previously known as Punjab Technical University (PTU) is a Co-ed institute situated at, Kapurthala highway, Jalandhar (Punjab), India. IKGPTU was Established by an Act of State Legislature on 16th January, 1997, to promote technical, management and pharmaceutical education in the state at degree level and above. The University has undertaken the task of training students to help in the development of skilled manpower in technical education in the country in general and in the state in particular. With this goal in mind, the university is promoting a number of courses in different streams in regular as well as distance education programmes. At present University have 121 AICTE and 65 UGC institutes affiliated with it.

This is a government institution and comes under the department of Technical education, govt. of Punjab. It provides an innovative, state-of-the art approach to higher education with a view to aid the growth of its students into well balanced, value oriented, socially sensitive and responsible members of the society. Housed in their own campus and the financial assistance is provided by University Grants Commission and State Government.

University started its journey with 09 Engineering & 05 Management Universitys. IKGPTU has its own learning centers under Distance Education Programme. Presently the University administrates 280 Universitys, out of which 102 are engineering, 134 are management, 30 are pharmacy, 07 are architecture and 07 are Hotel Management & Catering Technology (HMCT) with 33 regional centers. The reach of this University is not only restricted to Indian citizen but it has 1,500+ international students from 30+ countries.

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The University is situated on Jalandhar Kapurthala Highway. All the basic facilities like Bus Stop, Dispensary, shopping Centers, Post Office, Bank are all located in and around the University. This makes the Universityan ideally located one.

INFRASTRUCTURE AND LEARNING RESOURCES

The University is housed in buildings comprised of 16 different blocks, spread over an area of 78.16 acres. Total constructed till date is 93000 sqm., whose details are as follows:

S.No.	Name of building	Area in sq.meter	no. of floors	Year of construction
1	Main Administrative Building	24130	B+G+7&3	2008
2	University Building 1	12956	G+5	30/11/2016
3	University building 2	12729	G+5	31/03/2017
4	University building 3	6635	G+2	30/06/2016
5	Library	5904	G+2	31/03/2017
6	Seminar hall (1) (140 seats)	340	Ground Floor	30/11/2016
7	Seminar Hall (2) ground floor G3 building (100 seats)	401	Ground Floor	2008
8	Hostel girl (2 No.s) PIT	4876	G+I	30/06/2016
9	Director office	258	G+I	30/06/2016
10	Staff quarter	2090	G+I	2010
11	Bank and Post office	1675	Ground Floor	31/03/2017
12	Auditorium (800 seats)	3663	G+I	Ongoing
13	Hostel Boys (1) (Kapurthala side)	10522	G+8	31/03/2019
14	Hostel Boys (2) (Kapurthala side)	6753	G+8	31/03/2019

Auditorium and a Girls Hostelisunderconstruction in the

TheUniversityhasits own works department to cater day-to-day maintenance problems of various departments.

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COURSES OFFERED

S.N o.	Departmen t		Duration of course in years	Intake in first year	Total no of studen ts	Total no of Facult	
1	Civil Engineerin	B. Tech. – Civil Engg.	4	60	240	41	
	g	M. Tech. – Civil Engg.	2	20	40		
		(Specialization in Structural Engineering)					
2	Computer Science &	B. Tech. – Computer Engineering	4	60	240		
	Engineerin g	B. Tech. – Computer Science &Engg.	4	60	240		
		M.Tech Computer Science &Engg.	2	25	50		
			B.Tech Software Engineering in collaboration with Thompson Rivers University, CANADA (course details)	4	30	120	
		BCA (Bachelors of Computer Applications)	3	40	120		
		MCA (Masters of Computer Applications)	3	25	75		
3	Electrical Engineerin	B. Tech. – Electrical Engg.	4	60	240		
	g	M.Tech. – Electrical Engg. (Power Systems)	2	25	50		
4	Electronics & Communic ation	B. Tech. – Electronics & Communication Engg.	4	60	240		
	Engineerin g	M.Tech. – ECE (Wireless Communication Engg.)	2	25	50		
5	Mechanical Engineerin	B. Tech. – Mechanical Engg.	4	60	240		
	9	M. Tech. – Mechanical Engg.	2	25	50		

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S.N o.	Departmen t	Course	Duration of course in years	Intake in first year	Total no of studen ts	Total no of Facult
6	Food Science &	MSc Food Technology	2	25	50	
	Technology	MSc Clinical Research	2	10	20	
		M.Tech. Food Technology	2	18	36	
7	Chemical Sciences	B.Sc (Honors) Chemistry	3	45	135	
		M. Sc Chemistry	2	25	50	
8	Physical Sciences	B.Sc (Honors) Physics	3	30	90	
	101 - 10	M. Sc Physics	2	25	50	19
9	Mathematic al Science	B.Sc (Honors) Mathematics	3	30	90	
		M. Sc. – Mathematics	2	25	50	
and Mas	Journalism and Mass Communic	B.A. – Journalism and Mass Communication	3	25	75	
	ation	M.A. – Journalism and Mass Communication	2	25	50	5
		M. Phil – Journalism and Mass Communication	1	10	10	
11	Manageme	MBA	2	60	120	9
	nt	BBA	3	45	135	
12 Hotel Manageme nt		Bachelor of Hotel Management & Catering Technology (BHMCT) – 4 Years	4	60	240	
		Diploma in Food and Beverage Service	3	30	90	
13	Humanities	M.Phil English	1	4	4	3
	, Languages	M.Phil Punjabi	1	4	4	
a	and Cultural Studies	M.Phil. – Political Science	1	4	4	
(A) THE		Total		1075	3300	77

Data Source:-https://www.ptu.ac.in



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STRENGTH OF UNIVERSITY

S.No.	Description	Numbers	
1	Student	3300	
2	Teaching staff/ Non Teaching staff/ Outsource staff	1000	
3	Total	4300	

PARKING FACILITIES

There are two covered parking rest of the commuter's park their vehicle under tree or in open space near respective buildings. The Buses owned by the University parks at the back side road.

OTHER FACILITIES

S.No.	Description	Numbers / capacity
1	Underground water storage tank 2 Nos.	250 KLD 100 KID
2	STP 3 Nos	2 nos 30kld each 1 no. 50 KLD
	Solar panel system	
1	G+7/3	74 S8 KW
2	AB1	26.40 KW
3	AB2	23.75 KW
4	AB3	75.34 KW
5	LIBRARY	100.32 KW
4	Substation	
1	G+7	G+7&3 auditorium stp 30 KLD
2	BAY HOSTEL	BAY HOSTEL, MARRIAGE HOSTEL, GIRLS HOSTEL
3	AB1	AB1,AB2, LIBRARY, SEMINAR HALL,PART OFFICE & BANK
4	Ap3	Ap3,girls hostel-2 no., quarters , stp (50 KLD)(30 KLD)

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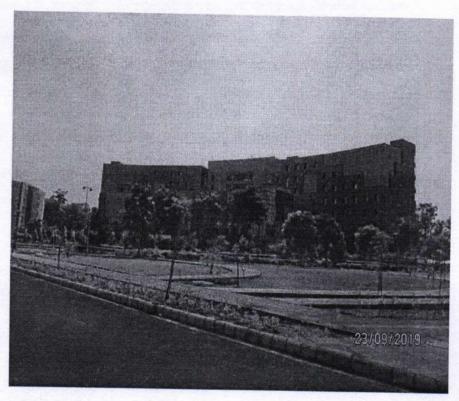
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OBSERVATIONS

THE GENERAL CONDITION OF EXISTING PROPERTY

University is operational in this campus from 2008. The development of infrastructure is in process. The buildings are designed as per modern Architectural practice. The buildingsare RCC framed structure with cement plastered brick partition wall. The building is having corridor with adjoining class room or other rooms. Exterior of the buildings are combination of exterior paint, stone cladding with glazing. Inside it is painted with light colour distemper on the walls.



Administrative building

EARTHQUAKE IMPACT ON BUILDING

The Indian sub-continent has a history of devastating earthquakes. Depending upon the intensity of earthquake India is divided into four seismic zone. Jalandhar lies in the **Zone** IV of the **seismic** zoning map of India as per IS:1893 (2002) Part 1.Zone IV is called the

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High Damage Risk Zone in which magnitude of earthquake is between 5 to 5.9 on Richter scale. Visually building infrastructure look like it can sustain intensity of earthquake occurring in Zone Four.

Physical status of building

The buildings are new and robust to sustain fire and earthquakes. There is no visual distortion or seepage observed.

EVACUATION PROCESS

Although the buildings are new and robust enough to sustain fire and earthquakes butlt is observed that there is hindrance at entry and exit in the buildings. Drawings and details are not provided hence difficult to comment on emergency exit situation Details not provided

CONNECTIVITY WITH CITY

The University at located at Kapurthala highway, Jalandhar. The nearest railway station and bus stand is Jalandhar City which is 15 Km from campus. All type of public conveyance are available from main gate of the campus.

PLANTATION AND GREENERY IN CAMPUS

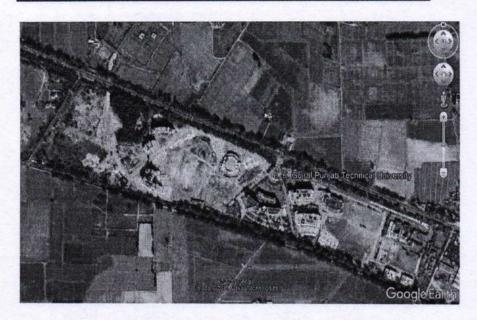
It is a lush green campus trees planted along the building, boundary and dedicated 4 acre land inside the campus. Ample numbers of trees are planted every year by staff and students. Details are as follows:

Lawn Area (Approx) :- 22,430 SQM. + 23,000 SQM. = 45,430 SQM.

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Shrubs	1800 Nos. (Approx)
Flower Pots	1200 Nos.
Hedge Area	1693 Raft.
Shrubbery Border	1691 SQM.
Flower beds	1200 SQM.
Trees	3000 Nos.

Name of Trees: - Avenue trees 'shady tree with flowers, Silver oak, Casuarinas, Krajla Magnolia, Pagoda Champa, Plumeria, Bottle brush, Sukhchain, TunKachnar, Kusham, Ficus Panda, Green ficus, Bottle Palm, Chukrassis, Moulserry, Jammon, Chinnas, Gulmohar, Amaltas, Bismarckia Palm, Jacaranda, Acutifolia, SilsAshook, Ashooka Tree, Juniperus golden, Juniperus green etc. Shrubs: - Chandni , VecigatedChandni, Acacia, Biflora, HaemaliaPottens, LogistoniaIndica, Cassia Gulaka, FicusVacigated, Ficus green, Ficus Block, Kalandra, Golden Bottle Palm, Phonex Palm, Gardnia etc.

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FIRE SAFETY

Fire equipment are installed in the campus, whose details are as below:

Observation on Fire fighting system			
Type Fire hydrant/ Sprinkler / Mix Description	Pressurised Hydrant System wet pipe types sprinkler System		

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Observation on Fire fi	ghting system
Location	Pressurised Hydrant System in ALL Building - AB-1,2,3 KRC ANG, G+7, G+3sprinkler System in library and ground floor of G+7, G+3 building
Size of pipe in stack	size Dia - 4 inches
No. and size of fire tank Under ground	1x1.5 lakhLitres storage at G+7, G+3 building
Overhead	25 X 5000 lakhLitres storage
Make up water requirement Frequency of cleaning of tank	500 LTR EACH

No comprehensive fire safety system is placed in the Institute. Although some fire extinguisher are observed at some places but no evacuation plans was observed. there is no caution boards on main electrical panel board. No records was provided regarding annual maintenance of these fire extinguishers. Material are placed at the passage which may obstruct smooth movement at the time of emergency.



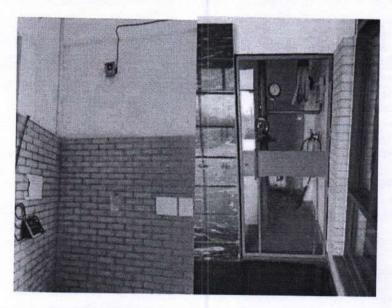
The building is robust enough to take heat load of moderate capacity for more than two hours. The building has been analysed for need of evacuation. There are adequate entry points at ground floor, whereas staircase and ramps connecting upper floors can be easily approached in case of disaster. The corridors are

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opening directly to outside. The ground floor height is only 10 feats from outside. Hence evacuation through windows is possible without causing heavy injury.

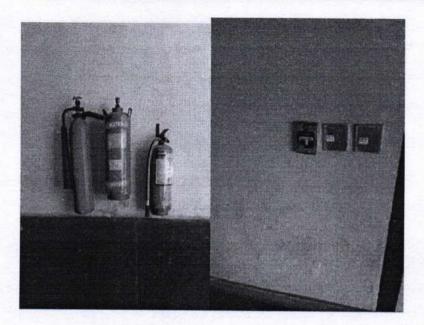




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Staircases are naturally ventilated to avoid suffocation in case of fire. Ramps provided in buildings will help in evacuation of injured and disabled persons.

The electrical wiring is either loose or there is web of wire lead to major accident.

There is no lift or staircase shaft system in the campus.

There is thick plantation with falling leafs . There are chances of fire in dry leaves, for this is no preparedness.

Record of fire system maintenance was not provided.

UNIVERSAL ACCESSIBILITY AND USE

Various, disabilities which have been considered while preparing the guidelines for barrier free built environment are broadly classified under four categories

Non-Ambulatory: Impairments that, regardless of cause ormanifestation, for all practical purposes, confine individuals to wheel & chairs.

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Semi-Ambulatory: Impairments that cause individuals to walkwith difficulty or insecurity. Individual using braces or crutches, amputees, arthritics, spastics &those with pulmonary & cardiac ills may be semi-ambulatory

Sight: Total blindness or impairments affecting sight to the extent that the individual functioning in public areas is insecure or exposed to danger

Hearing: Deafness or hearing handicaps that might make an individual insecure in public areas because he is unable to communicate or hear warning signals.

FACILITY AUDIT FOR NON-AMBULATORY AND SEMI-AMBULATORY

Corridors and doors are wide enough to provide adequate space for persons using mobility devices, e.g. wheelchairs, crutches and walkers. The floors are firm and leveled. Lifts and ramps are there in almost all the buildings to provide acerbity. Details of lifts and ramps are as follows:

Building name	Floors	No of Ramps	No of Lift
BuildingG+7&3	G+7&3	2	4
AB1	G+5	1	2
AB2	G+6	1	4
AmbikaPoul AB3	G+2	1	2
Liabrary	B+G+1	0	0
Seminaar hall 1	GF ONLY	0	0
Girls Hostel B1	G+2	0	0
Girls Hostel B2	G+2	0	0
DIRECTOR OFFICE	G+1	0	0
Staff Quarter B1	G+1	0	0
Staff Quarter B2	G+1	0	0
Staff Quarter B3	G+1	0	0
BANK & POST OFFICE	GF ONLY	0	0
Auditotirm	GF ONLY	1	0
Boys Hostel(1)	G+8	1	2
Boys Hostel(2)	G+8	0	2

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Ramp Details













Lift doors are wide enough to provide actability to a person with wheel chair.

There are grab bars in lift for support.

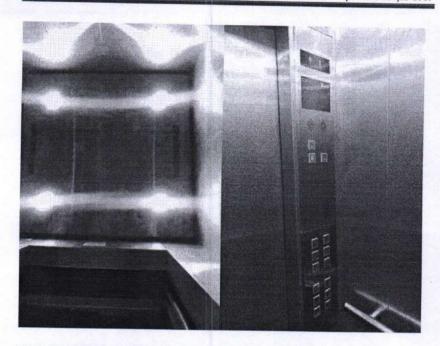
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There is no provision of handicap toilet for disabled persons nether there is any grab bars in toilets.

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FACILITY AUDIT FOR BLIND PERSON:

- · Sounder in lift was not in operation.
- Sign board in Braille- not located
- · Guidance block for blinds no provision

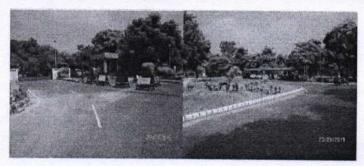
FACILITY AUDIT FOR IMPAIRED HEARING

- Sign boards are the in local language
- · Facility audit for General facility for differently abled person
- There is no dedicated parking. Floors are slippery.

PUBLIC HEALTH

Public health aims to improve the quality of life through human activity and prevention. The pathways are open to sky. There is no physical division between motorized traffic and pedestrian. This makes campus unfriendly for pedestrians. It has been observed that people use their vehicle for short distance movement.





Sign boards showing tobacco or smoking prohibition are not visible.

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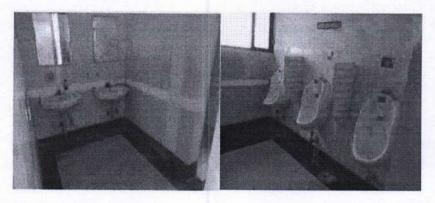
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HOUSE KEEPING

General cleanliness of the campus is good with clean toilets. But There is no protocol for dust suspension.





NOISE CONDITION

Studies reveal that noise effect learning ability and concentration, hence it is necessary to examine noise level in educational institute. The observation of Noise level taken in between 12 noon to 3 pm on working day with window closed. The observed noise level is in between 40 to 65 db. Details are as below:

S.No.	Location	Sound in db
	Ambika school	
	Director main office	and the state of t
1	Room = 013C	53.1
2	Room = 013B	50.8
3	Room = 013A	53.1

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S.No.	Location	Sound in db
4	Room = 002B	50.8
5	Room = 002A	53.5
6	Room = 002	41.3
7	Room = 003 B	56.3
8	Room = 003 G	56.3
9	Room = 003 E	51.7
10	Room = 004	51.7
11	Room = 005	57.4
12	Room = 006 (physics lab - I)	52.8
13	physics lab - II	41.3
14	physics lab - III	41.1
15	Room = 009	54.8
16	Room = 010 (Hall)	54.8
	(G+7) - Canteen	
17	Lunch Area	53.5
18	Kitchen Area	53.4
	(G+7) - First Floor	
19	Account Section	60.9
20	room	57.3
21	Legal cell	60.3
22	Room	53.1
23	office	61.5
	AB-I (Ground floor)	
24	Depart of Civil (office)	61.3
25	senior assistant room	61.3
26	Assistant Register	55.2
27	canter	55.3
28	class room - A007	56.4
	4th floor AB-I	00.4
29	Management department (office)	51.6
30	common room	50.5
	5th floor	00.0
31	class room -A511	56.3
32	class room -A509	49.1
	Library	70.1
33	Ifloor	48.3
34	II nd floor	48.3
	Ground floor	48.3
35	Seminar Hall	44.7

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PEST CONTROL TREAATMENT

Pest is a destructive insect or other animal that attacks crops, food, live stock and other things in the building. Basically it is harmful for humans and their health.

- Problems resulting from pests in a building can include:
- Deterioration of the building (e.g. rodents making holes, termites destroying wood).
- People developing allergies (allergies to animals such as possums and rats, or dust mites, are common).
- Pests can bring & spread diseases (e.g. flies, rodents).
- Bites (from spiders, fleas, mosquitos, etc.).

PSYCHOLOGICAL AFFECTS.

TYPES OF PESTS

Types of pests include:

- insects, such as roaches, termites, mosquitoes, aphids, beetles, fleas, and caterpillars.
- insect-like organisms, such as mites, ticks, and spiders,
- microbial organisms, such as bacteria, fungi, nematodes, viruses, and mycoplasmas,
- weeds, which are any plants growing where they arc not wanted,
- mollusks, such as snails, slugs, and shipworms, and
- vertebrates, such as rats, mice, other rodents, birds, fish, and snakes
 Pest control is the regulation or management of a species defined as a pest, a member of

the animal kingdom that impacts adversely on human activities especially in buildings.

There are traces of termite, mosquito and other rodent on the building. There is protocol for pest control in the University. Tanks lid was found open

INDOOR AIR QUALITY

Exposure to poor indoor air quality can cause short-term eye, nose and throat irritation as well as headaches, dizziness and fatigue. This effect concentration and has direct impact on learning ability. In this background air quality was checked for four parameter i.e. PM_{2.5}, volatile organic compounds (VOCs). Carbon Dioxide and Formaldehyde. Results are as follows

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S.No.	Location	Air Quali	ty	n meterin	
		PM 2.5	VoC	Co2	HCHC
3000	Ambika school				
	Director main office				
1	Room = 013C	19.1	0.09	1109	0.01
2	Room = 013B	47.6	0.01	0400	0.01
3	Room = 013A	67.2	0.08	0921	0.01
4	Room = 002B	82.1	0.07	0400	0.01
5	Room = 002A	61.1	0.09	0400	0.01
6	Room = 002	68.7	0.07	0400	0.01
7	Room = 003 B	59.7	0.07	0400	0.01
8	Room = 003 G	74.5	0.07	0400	0.01
9	Room = 003 E	78.5	0.08	0400	0.01
10	Room = 004	52.1	0.09	0400	0.01
11	Room = 005	64.2	0.09	0901	0.01
12	Room = 006 (physics lab - I)	72.1	0.09	0791	0.01
13	physics lab - II	74.1	0.08	0400	0.01
14	physics lab - III	68.9	0.09	0400	0.01
15	Room = 009	82.1	0.09	620	0.01
16	Room = 010 (Hall)	7.85	0.01	0400	0.01
	(G+7) - Canteen				
17	Lunch Area	2.27	0.01	0400	0.01
18	Kitchen Area	7.66	0.01	0400	0.01
	(G+7) - First Floor				
19	Account Section	52.1	0.09	0400	0.01
20	room	64.2	0.09	0901	0.01
21	Legal cell	68.7	0.07	0400	0.01
22	Room	59.7	0.07	0400	0.01
	G+3 (First floor)		1	1	0.01
23	office	82.1	0.09	620	0.01
	AB-I (Ground floor)		0.00	1020	0.01
24	Depart of Civil (office)	82.1	0.07	0400	0.01
25	senior assistant room	61.1	0.09	0400	0.01
26	Assistant Register	68.7	0.07	0400	0.01
27	canter	59.7	0.07	0400	0.01
28	class room - A007	47.6	0.01	0400	0.01
29	4th floor AB-I		1	0.100	0.01
	Management department (office)	19.1	0.09	1109	0.01
30	common room	47.6	0.01	0400	0.01
	5th floor		10.0,	10.00	10,01
31	class room -A511	67.2	0.08	0921	0.01
32	class room -A509	59.7	0.07	0400	0.01
	Library		0.01	0.00	0.01
33	I floor	74.1	0.08	0400	0.01

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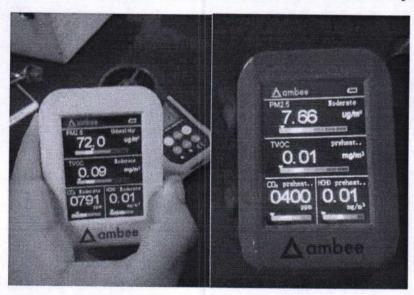


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S.No.	Location	Air Quality				
		PM 2.5	VoC	Co2	НСНО	
34	II nd floor	82.1	0.09	620	0.01	
	Ground floor	7.85	0.01	0400	0.01	
35	Seminar Hall	68.7	0.07	0400	0.01	

From the above it is clear that the level of PM2.5, volatile organic compounds

(VOCs) and Formaldehyde is moderate .But level of Carbon Dioxide is high .



MAINTENANCE PRACTICES

Maintenance is a practice to upkeep building in its original shape. The damages observed are attended to make the facility functional. The minor defects and maintenance issues are addressed by the University itself. Buildings are new, no major defect is observed.

PARKING

At the time of visit i.e. 24.09.2019 about 700 vehicles are found parked in the campus. Maximum vehicles are parked near G+7&3 Building and AB3. Details are as follows:

Building name	Parked 2 wheel at visit time	Parked 4wheel at visit time	Covered
Building G+7&3	200	140	1
AB1	4	0	0

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Cean (P&CP)

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Building name	Parked 2 wheel at visit time	Parked 4wheel at visit time	Covered
AB2	0	0	0
AB3	150	120	0
Liabrary	50	40	0
Seminaar hall 1	0	0	0
Girls Hostel B1	0	0	0
Girls Hostel B2	0	0	0
DIRECTOR OFFICE	0	0	0
Staff Quarter B1	0	1	1
Staff Quarter B2	0	1	1
Staff Quarter B3	0	1	1
BANK & POST OFFICE	0	0	0
Auditotirm	0	0	0
Boys Hostel(1)	10	4	0
Boys Hostel(2)	0	0	0
Total	414	307	4

Facility of covered parking is available at G+7&3 Building, AB3 and Staff quarters. Maximum places vehicles are parked on open parking or at road side. Even University owned Buses are parked roadside behind G+7 building.



Parking at G+7&3 building

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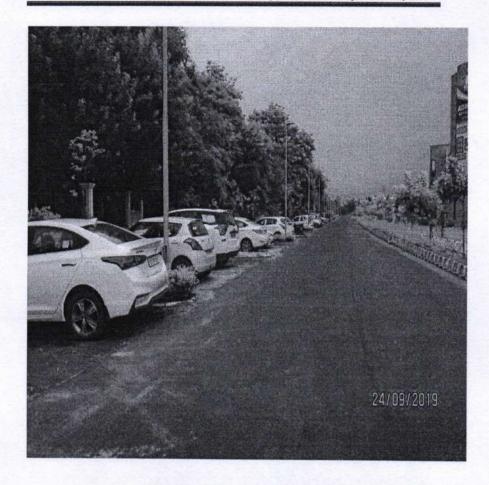






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ENERGY AUDIT & ENERGY MANAGEMENT

OBJECTIVE OF ENERGY AUDIT EXERCISE

The objective of Energy Audit is to identify area of energy consumption and promote Energy sustainability in the Campus

The purpose of the energy audit is to identify, quantify, describe and prioritize cost saving measures relating to energy

Identification of areas of energy wastage and estimation of energy saving potential · Suggesting cost-effective measures to improve the efficiency of energy use.

Identification of possible usages of co-generation and renewable sources

Rectification of energy bills and negotiation with energy supply company to reduce fix rate.

THE CAMPUS

This is a day use campus, using electricity for Lighting, HVAC system, Operation of computers and other equipment. Source of Energy is as followes:

- Electricity is supplied by Punjab State Power Corporation Limited through 11 KV feeder.
- High Speed Diesel (HSD) is used as a fuel for Diesel Generator which operates whenever power supply from PSPCL is not available (equipment and operational details of DG set not provided by the client).

Solar PV plant is installed on site (Details needed)

LPG is used for cooking in Canteen and Hostel (Details needed)

Note:-Record keeping of energy consumption need improvement.

ELECTRICITY CONSUMPTION PATTERN GRID SUPPLIED ELECTRICAL POWER

There is only one 11 KV electrical meter installed in the campus (location need verification). Observation from electricity bill is as follows:

Months	2015	2016	2017	2018	2019
January		134238	164064	213330	235852
February	-	90102	139915	151318	186272

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Months	2015	2016	2017	2018	2019
March	-	42563	104912	106854	100066
April	45940	78768	149885	163470	138808
May	84520	138630	218533	243638	239392
June	148620	165717	252295	249802	260418
July	118320	140935	318844	265010	-
August	125220	199593	•	293294	459931
September	192689	164686	404210	214670	332708
October	74477	106792	144300	136126	•
November	91765	63431	-	99900	-
December	134238	108339	227960	174178	-

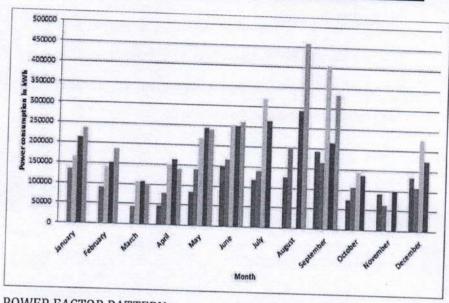
From June 2015 till August 2017 sanctioned load and contract demand was 2000 KW and 2000 KVA respectively. But from September 2017 sanctioned load and contract demand was revised to 3056.84 KW and 3396 KVA respectively.

ENERGY CONSUMPTION PATTERN

From Energy consumption pattern it is clear that energy consumption is more in monsoon months i.e. august and September. Energy consumption in spring and autumn is least in all season. Electricity consumption of winters is less than summer.

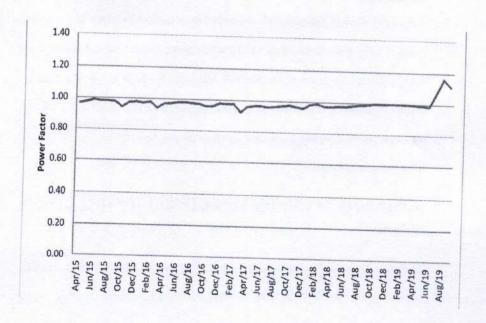
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POWER FACTOR PATTERN

From Bills of April 2015 till September 2019 it is observed that PF roam around 0.96 with minimum of 0.92 and maximum more than 1 in this period. Incentive against maintaining high power factor was never claimed nor surcharged was attracted.



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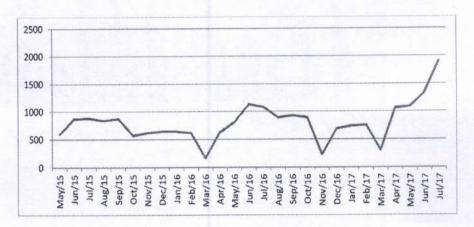
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MAXIMUM DEMAND

Maximum demand is the highest level of electrical demand monitored in a particular period. Once the value is higher than the contracted power, the customer will pay a penalty on the electricity bill.



EFFECT OF SANCTIONED LOAD AND CONTRACT DEMAND

From June 2015 till August 2017 sanctioned load and contract demand was 2000 KW and 2000 KVA respectively. But from September 2017 sanctioned load and contract demand was revised to 3056.84 KW and 3396 KVA respectively. But the maximum demand never crossed 2000KW from June 2015. The high sanctioned load and contract demand is attracting high fixed charges. April 2019 the fixed charges was higher than energy charges.

CONDITION OF EXISTING ELECTRICAL INSTALLATION WIRING

The campus is new and the electrical system is well planned. Concealed conduit wiring is adopted for internal distribution. Care was taken at the time of planning to adhere the functional need of

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the spaces. Even after diligent planning electrical power extension through open wiring has been observed at few places.

It has been learnt that there is no protocol of checking insulation of wiring

ELECTRICAL EARTHING SYSTEM

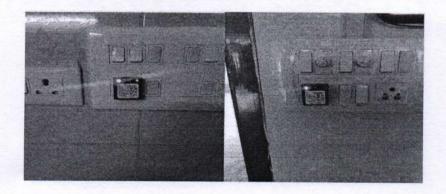
The process of transferring the immediate discharge of the electrical energy directly to the earth by the help of the low resistance wire is known as the electrical earthing. This system provide shifty to human being and electrical equipment and installation.

Electrical earthing has been observed at substation as well as individual buildings. Using portable equipment random checking for continuity and insulation of wiring was conducted in the campus. The observations are as below

S.No.	Building	Observation		
1	G+7	Earthing faulty		
2	G+3	Earthing faulty		
3	AB-1	ALL OK		
4	CANTEEN	ALL OK		
5	AB-2	ALL OK		
6	LIBRARY	ALL OK		
7	AB-3	Earthing faulty		
8	Post office & Bank	L&D reversed		
9	boys hostel	Earthing faulty		

Over all wiring condition is good but earthing system need attention. At the time of inspection

the earth pits were found dry. There was no record of watering earthing pit.

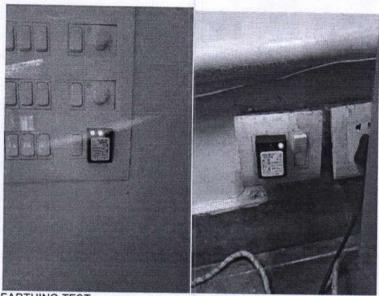


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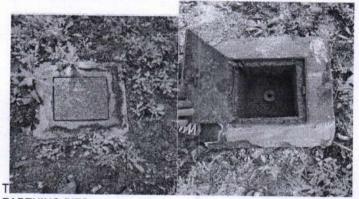
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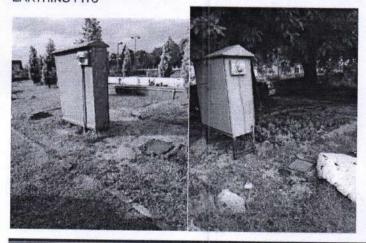


EARTHING TEST

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EARTHING PITS



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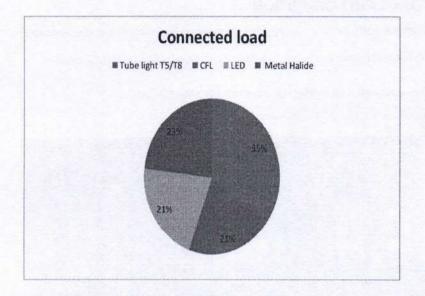
EARTHING PITS

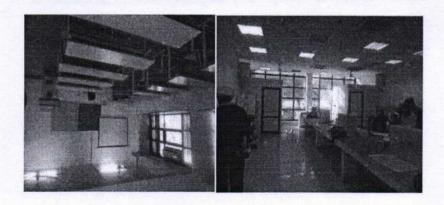
LUMINARY

It is observed that there is no uniformity in luminary. Details of luminary are as follows:

LUMINAIRES	Connected load in KW	Connected load in %
Tube light T5/T8	139	35%
CFL	80.6	20%
LED	84.1	21%
Metal Halide	92	23%

Although Institute is in the process of phasing out system of CFL and bulb with LED bulbs.





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Light and fans

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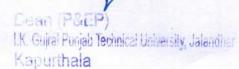
DAY LIGHT CONDITION

Each and every rooms are having adequate windows. The observation of day light taken in between 12 noon to 3 pm on bright sunny day of April is more than 150 lux on lux meter.

It is observed that the window light is obstructed by putting curtains.







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Day light and ventilation Condition

VENTILATION CONDITION NATURAL VENTILATION

The buildings are fully air conditioned but fornatural ventilation there are adequate amount of open able panes in windows, opening on outer side of the rooms on outer face of the building. There is no obstruction in front of windows. Doors and windows are provided on the opposite wall of the room. Doors are opening incorridor to provide proper cross ventilation. There is about 5°C temperature difference is observed in ambient air outside and inside the building with avarage airflow of 0.4m/s.

It is observed that windows and ventilators are permanently closed obstructing cross ventilation.

MECHANICAL VENTILATION

Fans and blowers are provided to move air inside the building to remove order. provide fresh air and to maintain thermal comfort in relatively cooler days. Fans are placed at every nick and corner of the campus to adhere respective function of the space. Details are as follows:

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Type of Fan	Numbers
CEILING FAN 1400 MM	534
WALL BRACKET FAN	10
CEILING FAN 1200 MM	1161
EXHAUST FAN 300 MM	247
EXHAUST FAN 450 MM	16

Thermal Comfort condition

HVAC system is provided to maintain thermal comfort in the buildings. Details of HVAC are as follows:

314711	EQUIPMENT	DEIMIL				
S.no	Description	Make	Model	Manufacturing year	Rated capacity in TR	Use
Α	Building - AB-	I , AB-2 ,	SH-2 , I	KRC		
	VRF AC System	Voltas			1422 TR	Feeding AB-1, AB-2, SH-2, KRC
В	Building - G+3] 3 , G+7				
	Air Cooled				3X 200 TR	Feeding G+3, G+7
					1X 55TR	
С	Split A.C In G-	+3 , G+7				
	Split A.C				2TR-24	Feeding G+3, G+7
					1TR-02	
					1.5TR-14	
D	Split A.C In AB	3-3				
	Split A.C			I	2TR-84	Feeding AB-3
man =					1TR-07	
					1.5TR-50	
	Cassette A.C				2TR-16	

Comfort condition of campus was checked using portable anemometer cum thermometer. Details are as follows:

S. No	Room No.	Temperature/ humidity	Air Velocity in m/s
	Ambika school		
	Director main office		

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S. No	Room No.	Temperature/ humidity	Air Velocity in m/s
1	Room = 013C	28.6 .C 40.5% rh	0.93
2	Room = 013B	27.6 .C 45.0% rh	0.13
3	Room = 013A	20.8.C 61.0% rh	0.00
4	Room = 002B	20.0.C 59.5 % rh	0.40
5	Room = 002A	28.5 .c 64.5 % rh	0.73
7	Room = 003 B	28.7 .c 52.0 % rh	0.06
8	Room = 003 G	28.2 .c 61.5 % rh	0.06
10	Room = 004	28.7 .c 57.2 % rh	0.33
11	Room = 005	28.0 c 49.5 % rh	0.20
12	Room = 006 (physics lab - I	27.3 c 46.7 % rh	0.13
13	physics lab - II	26.8 c 53.7 % rh	0.73
14	physics lab - III	26.5 c 48.5 % rh	0.53
	AB-I (Ground floor)		0.00
24	Depart of Civil (office)	29.2 c 67 % rh	0.26
25	senior assistant room	29.2 c 68.5 % rh	0.73
26	Assistant Register	28.6 c 53.0 % rh	0.33
29	4th floor AB-I		0.00
	Management department (office)	29.0 c 52.5 % rh	0.26
30	common room	28.6 c 54.2 % rh	0.33
	5th floor		0.00
31	class room -A511	29.3 c 45.0 % rh	0.20
32	class room -A509	29.3 c 53.5 % rh	0.53
	Library		0.00
33	I floor	30.2 c 56.2 % rh	0.13
	Ground floor	29.1 c 55.3 % rh	0.26
35	Seminar Hall	29.3 c 57.0 % rh	0.06

Day	T	ather condition to	Tm	H
23	27.8	33.8	22.8	72
24	28.3	33.4	23.41	73
25	28.7	33.3	24.6	75
26	28.6	34	24.6	76
27	26.4	33.7	24.8	77
Monthly a	verage			1.,
	28.0	33.6	24.0	74.6
T	Daily Averag	e temperature		
TM	Daily maxin	num temperature		
Tm		um temperature		

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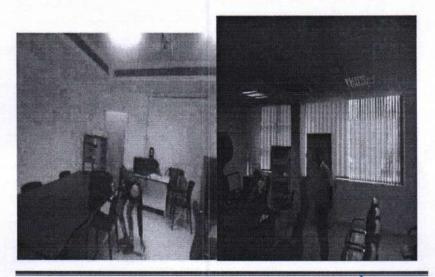


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Day	T	TM	Tm	H
Н	Average	Humidity		

For above ambient weather conditions the internal thermal comfort maintained using HVAC system is good. The HVAC system is used for reducing humidity by maintaining high temperature which is a good practice.





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PUMPS AND MOTORS

Pumps are used to deliver water at different tanks placed at different terrace. Details of pumps are as follows:

S.No	Storage of water location	Pump installed fozr transferring of water if yes then type and capacity
1	Administrative G+7, G+3	3x11 HP Kirloskar
2	AB-1, AB-2, KRC HALL	3x11 HP Kirloskar
3	AB-3, Girls Hostel	2x11 HP kirloskar
4	Boys Hostel	1x50 Amer sine motor

There is no meter installed at pumping station to monitor regular energy performance of

water supply pumps. Similarly no record is maintained for operating hours as well as quantity of water pumped.

IDENTIFICATION OF WASTAGE

Electricity is used to maintain visual and thermal condition in the buildings.

It is observed that light are operational at places where day light condition was good and there were no occupants.

Similarly fans and AC were on in empty spaces or class rooms.



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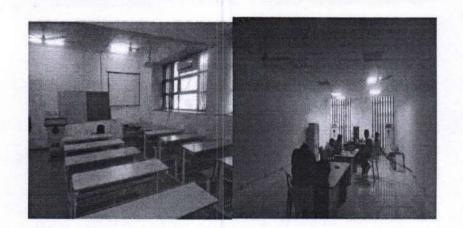
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WATER AUDIT AND MANAGEMENT

FRESH WATER

WATER REQUIREMENT

Water is required for drinking, flushing of toilets, Lab works and watering of plants of Botanical garden. The anticipated water requirement is as follows:

S.No.	Description	Consumption in liters
Fresh	water requirement	
1.	Domestic water for staff and student (day scholar) @25 per head considering 80% of 2733 (total enrolled students) i.e 2200 (approx.)	550001
1.	Domestic water student (Hostel)@90 per headconsidering 565 students	50850
1.	Domestic water for visitors @5 per head considering 50 visitors per day	2501
	Fire tank make up	4001
	Sub total (Domestic water)	1100001
Raw /	Recycled water requirement	•
2.	Flushing water for staff and student (day scholar) @20 per head considering 80% of 2733 (total enrolled students) i.e 2200 (approx.)	44000 I
	Flushing water student (Hostel) @45 per head 565 students	254251
2.	Flushing water for visitors @0 per headconsidering 50 visitors per day	250 1
3	Watering of plants Trees (3000 no.)	Not required plants are too
	Shrubs & Flower Pots 3000 (Approx.) @ 1l per plant	30001
3	Hedge Area, Shrubbery Border, Flower beds 3000 SQM. (Approx.) @ 5l per SQM	15000 I
	Lawn 45000 SQM@ 5l per SQM	2250001
	Sub total (Flushing water)	273000
	Total anticipated water requirement	383000

Source:-NBC 2016 table 1 part 9 page 12

SOURCE AND DISTRIBUTION

There are 2 tube wells and a no municipal water connection. The water is collected in under ground sump. Details are as below:

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SOURCE OF WATER

S.No	Source of water	Quantity received	Storage facility
1	Tube well in Administrative Building		2.5 lakh ltr RCC UGT (1.5 lack liter is reserved for fire)
2	Tube well in AB-3 (PIT) Building		01 lakh ltr RCC UGT

The water is then transferred to individual tank placed on terrace. The water is distributed

through pipe network to individual point of use. Details of terrace tanks are as below:

s.N o	Storage of water location	Tank type PVC/RCC/steel/o ther	Quantity stored in liters	Pump installed fozr transferring of water if yes then type and capacity
1	Administrative G+7 ,	pvc	12x5000 ltr	3x11 HP Kirloskar
2	AB-1 , AB-2 , KRC HALL	pvc	24x5000 ltr	3x11 HPKirloskar
3	AB-3, Girls Hostel	pvc	12x25000 ltr	2x11 HPkirloskar
4	Boys Hostel	pvc	5x10000 ltr	1x50 Amer sine motor

The terrace tanks are cleaned once in a year. Details are as below:

S.N o	Location	Nos. of PVC tank	Frequenc y	Last date of cleaning
1	Building G+7, G+3	12	one year	Dec-18
2	AB-1 , AB-2 , KRE , HALL	24	one year	Dec-18
3	AB-3, Girls Hostel	12	one year	Dec-18
4	Boys Hostel	6	one year	Dec-18

Note:-There is no meter in supply line or distribution line.

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DRINKING WATER FACILITY

There are 50 drinking water point having a set of water cooler with purifier are installed. These cooler get cleaned every month. Purifiers are maintained. Details are as follows:

S.no	Storage type	Nos	Fitter with local filter or common filter	Last date of cleaning
1	water cooler	50	Branded filters	cleaning in monthly last cleaning done on 19 sep 2019



Drinking water facility

FLUSHING WATER REQUIREMENT

Waterless urinals are installed int the campus where as to flush water closets fress water is used.

FLOOR CLEANING AND VEHICLE CLEANING

Non treated fresh water is used for floor cleaning and Vehicle cleaning as and when required. Record not maintained.

FIXTURE AND FITTING

Regular Fixture and fitting are installed in the campus.

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WASTE WATER MANAGEMENT

Waste water is generated from Drinking water point, Basin and WC of toilets. The sewage so generated is conveyed to the STP whose capacity and location are as follows:

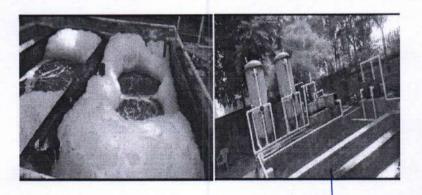
Waste water treatment system

S. no	Source of waste water Location	Quantity Generated sewage in litres	Only water or mixing of chemicals(soap/ detergent/ phenol/other)	Treat ment syste m	Pump installed if yes then type and capacity
1	STP - 30 KLD X 2	There is no meter to measure	yes	STP	Details not provided
2	STP - 50 KLD X 1		yes	STP	

The waste water generated in chemical lab is also conveyed to the STP for respective building.

IRRIGATION OF GARDEN

The average lives of plants in 4.5 acre green cluster are 15 to 20 year of the plant needs almost no water. At other area irrigation is done by flooding method using mixture of fresh and recycled water. There is no meter in irrigation water supply or recycl3ed water supply.

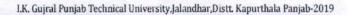


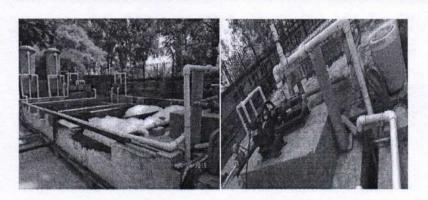
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RAIN WATER MANAGEMENT

Water from roof and other area follow natural path of contour and flow conveyed to low lying areas.

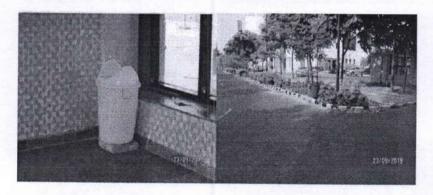
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STATUS OF MUNICIPAL / SOLID WASTE HANDLING

Dust bins and garbage bins are placed at every nick and corner of the campus. Here it is observed that all type of the Municipal waste is collected in common bin. The Non organic collected waste is then shifted to the nearest pickup point from which the waste is transported to MunicipalLand fill where as organic waste is treated and converted into compost in the campus only.



SOLID CHIMICAL WASTE

There is no solid chemical waste generated in the campus.

ORGANIC WASTE

The organic waste generated in the form of food left over, leafs and tree waste all over the campus. It is treated and converted into compost using electro-mechanical composter.

ELECTRONIC WASTE

The non functioning computers are stored in a room with the intent to dispose it off to authorized vendor on later date.

RECYCLABLE WASTE

Time to time old newspapers, magazine and used papers from office are handed over to authorized vendor.

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CARBON FOOT PRINT

Carbon foot print is the amount of carbon dioxide released into the atmosphere as a result of the activities of a particular individual, organization, or community. In the institute like this Carbon Dioxide is generated by burning of petroleum product like petrol, Diesel and LPG or use of electricity.

CALCULATION METHODOLOGY

Electricity = 0.85 kg CO₂ per KWh, Source: CO₂ emission factor database, version 06, CEA (Government of India), http://www.cea.nic.in/reports/planning/cdm_co2/cdm_co2.htm .

Motor gasoline/ Petrol = 2.296 kg CO₂ per liter, Source: Emission factors are taken from the file "Emission factors from across the sector -tool", extracted from http://www.ghgprotocol.org/calculation-tools/alltools.

Diesel= 2.653 kg CO₂ per litre, Source: Emission factors are taken from the file "Emission factors from across the sector -tool", extracted from http://www.ghgprotocol.org/calculation-tools/alltools.

Liquefied petroleum gas (LPG) = 2.983 kg CO₂ per kilogram, Source: Emission factors are taken from the file "Emission factors from across the sector -tool" extracted from http://www.ghgprotocol.org/calculation-tools/alltools.

Public conveyance bus: Number of users per year X 0.105 (Emission Factor)kg

CO₂ per passenger/Km= Output value in (Kg of CO₂).source

https://www.carbonfootprint.com/calculator.aspx

Carbon Footprint: Add (1+2+3+4+5) = Output value in (Kg of CO₂)

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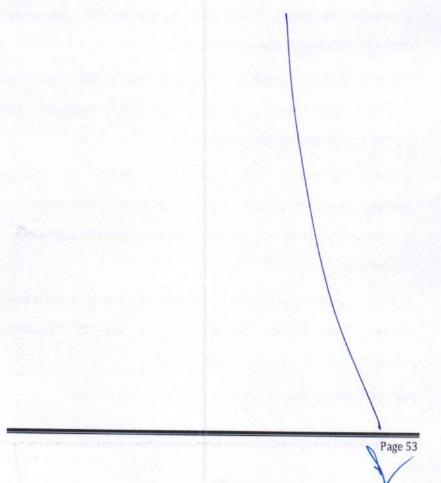


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CALCULATION OF CARBON FOOT PRINT

S.no.	Fuel type	Unit	Consumption per year	Emission Factor	Total in KG
1	Electricity	KWh	2363651	0.85	200910
2	Motor gasoline/ Petrol	liter	42000	2.296	96432
3	Diesel	liter	614640	2.653	163064 0
4	Liquefied petroleum gas (LPG)	kilogram	6300	2.983	18792.9
5	Public conveyance bus	Number of users	6499200	0.105	682416
	Total carbon foot print in KG				443738 4
	Total carbon foot print in matric ton				4437.38

Total carbon foot print of university is 4437.38 metric tonCO2 per year



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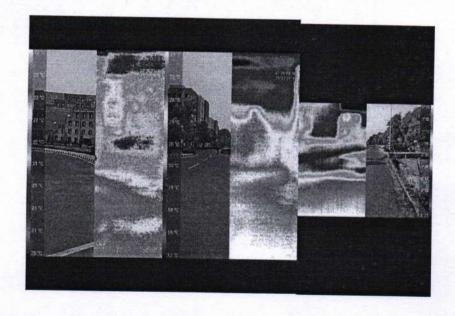
HEAT ISLAND IMPACT

The heat island effect implies to cities or metropolitan areas are transformed into islands of heat.

Temperatures in these regions can get as much as 3 to 5°C higher compared to the adjacent rural areas.

The hard paved surface, Black roof top and vehicle standing outside in direct sun enhance heat island impact.

Study was conducted from 25.11.2019 using thermal camera. The average daily ambient temperature detected by nearby metrological station no 420710 was 16.4°C with average maximum temperature 24.3°C whereas minimum average temperature 9.8°C (weather data source https://en.tutiempo.net/climate/11-2019/ws-420710.html). It is concluded from the captured thermal camera that the temperature of roads are 5°C higher than raw land. Vehicles parked at side of road exposed to sunlight is having 10°C more temperature than raw land.

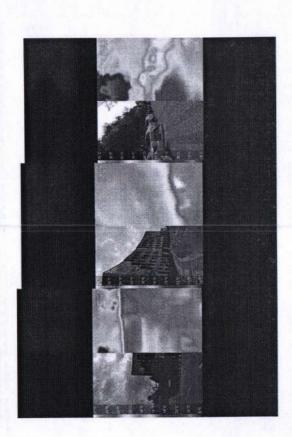


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RECOMMENDATIONS

GENERAL

Based on the baseline study or the observation made earlier section, this portion outlines measures to be adopted to make campus Green.

BUILDING MAINTENANCE

Although maintenance of Building infrastructure is in owners scope even then work can be priorities for follow up. The classification of priorities and its contains are as follows

HIGH PRIORITY WORK

Definition: Work that does not qualify as an emergency, but cannot wait to be scheduled as routine maintenance and repair. Generally, these are NOT issues related to health, safety, or security but have impact on the function of the building. The Chief Custodian must put in a work order for these issues and be sureto be specific in the description of the assistance needed.

Following are typical examples of high priority work orders:

- Broken fence or gates
- Leaking or broken sprinkler heads, valves
- · Broken tree limbs or fallen trees
- Leaking plumbing
- Cracked glass windows
- Street lights not working.

MEDIUM PRIORITY WORK

Definition: Medium priority work order falls into the routine maintenance work request. These work orders are the everyday repairs required to keep the building in proper working order.

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Most work orders will fall into this priority for completion. The Chief Custodian must put in a work order for these issues.

Some examples can be:

- Repair electrical switch or outlet
- · Replace light ballast
- · Urinal stopped up
- · Door closer leaking hydraulic fluid
- Black Board Painting
- · Drinking water facility either cooler or filter or both are not working

LOW PRIORITY WORK

Definition: Low priority work orders are issues needed to be completed within the scheduled period of time. These items, although routine, can be scheduled and completed as a craft person becomes available.

Some examples might be:

- · Playground equipment painted
- Keys (replacement keys)
- Paint parking lot stripes
- · Pick up bags of leaves for disposal

SOLID WASTE MANAGEMENT SYSTEM

it is proposed to have provision for segregation and collection of biodegradable & non-biodegradable waste within the premises. Biodegradable waste will be treated in existing Organic Waste converter within the premises. Non-biodegradable waste recyclable waste shall be handed over to recyclers and non-recyclable waste shall be shifted to nearest pick up point from which it is transported to land fill ground. No burning of solid waste in open shall be prohibited in campus.

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DISPOSAL OF ELECTRONIC WASTE

Electronic waste or e-waste describes discarded electrical or electronic devices. Informal processing of e-waste in developing countries can lead to adverse human health effects and environmental pollution. If electronic equipment is in operational condition then donate it. This will helps reduce pollution that would be generated while manufacturing a new product and therefore the pressure on natural resources. It also reduces the energy used in new product manufacturing. Put unusable electronic equipment in a tamper proof plastic bag. Store it in leak proof containers till it is disposed off. Hand over all the e-waste to authorised recycler.

If electronic equipment are replaced by new one then hand over old one to the supplier itself.

HOUSE HOUSEKEEPING

The purpose effective housekeeping is to protect faculty, staff and students from injuries and illness by making all the area clean. Following shall be done for effective housekeeping:

- Dispose of all items in the proper labelled containers
- Anything flammable should be in a metal container and labelled
- Clean up spills immediately
- Stack Item properly make sure they cannot fall or block passages
- Avoid food and beverages in work area
- Never put liquids in an unlabelled container
- Do not remove any safe guards on equipment

ENERGY MANAGEMENT

Energy conservation is the need of the hour the first step toward energy consumption is to record the energy use. Following steps can reduce energy consumption:

- Energy record shall be maintained as per Performa enclosed
- Provide Power Factor correction method to claim incentives for maintaining better power factor.

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- High efficiency electronic ballasts shall be used on all Tube lights.
- Change incandescent lamp with either CFL or LED bulbs.
- Change existing T12/T 8 Tube light with T5 Tube light.
- Change existing fans with energy efficient fans
- Open window for day light or replace at least top two window panes with transparent glass.
- Switch off all the electrical equipment when it is not in use.
- Provide solar powered LED street light.
- Provide occupancy sensor and day light sensors to switch off lights and fan when operation of this is not required.
- Maximum demand mater shall be provided.
- Electricity supply company shall be approached to revise contract demand hence accordingly fixed charges will be reduced.
- Provide proper earthing for electrical equipment and building wiring system.
- Replace present conventional earthing system with no maintenance chemical earthing.

Similarly record of LPG shall be maintained and following steps will optimize use of LPG

- Clean the burner of stove periodically
- Use small burner in place of big one
- Make all the preparation before turning on LPG stove
- Check the flame of burner. Blue flame means gas stove is operating efficiently. Yellowish flame is an indicator that the burner needs cleaning
- Use pressure cookers as much as possible
- Use lids to cover the pans while cooking § Bring items taken out of refrigerators (like vegetables, milk etc.) to room temperature before placing on the gas stove for heating.
- Turn off the stove when it is not in use.

HVAC SYSTEM

Don't over-cool. The ideal thermostat setting is between 25°C and 27°C with ceiling fan operational. Every degree you raise your thermostat can result in a 5% savings on the cost of cooling your home.

- Keep lamps, Computers and other heat sources away from the air conditioner thermostat. Heat from these sources may cause the air conditioner unit to run longer than it should.
- Make sure that no furniture or other obstacles are blocking ducts or fans. This will enable cooled air to circulate more freely.
- When selecting a central air conditioning unit, be sure to choose one that is sized appropriately and uses the minimal amount of electricity to complete its task.
- Install a ventilating fan in your attic or in an upstairs window to help dissipate hot air and cool down the spaces.

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- Don't set thermostat at a colder setting than normal when you turn your air conditioner on. It will not cool the room any faster, but it will use more
- Use a ceiling fan in conjunction with your air conditioner to spread cooled air to other rooms.
- Clean the outside air conditioner condenser coil once a year. Turn off the unit and spray the coils with water at a low pressure to remove dirt, dust, leaves and grime.
- Clean filter of indoor unit once in 15 days.
- Use duct tape to seal the cracks between each section of an air duct on your central air conditioning or forced heating system.
- Close your blinds, curtains and shades during the hottest part of the day. Keep out the daytime sun with vertical louvers or awnings on the outside of your windows.
- Keep lights low or off when not needed. Electric lights generate unnecessary room heat.
- Factors Affecting Energy Efficiency & Minimising Motor Losses in Operation

MOTOR PERFORMANCE

Motor performance is affected considerably by the quality of input power, that is the actual volts and frequency available at motor terminals vis-à-vis rated values as well as voltage and frequency variations and voltage unbalance across the three phases

PROPER PUMP SIZING

Pumps installed in the primeses are over sizedresulting in undersizing of pumps. Under-loading results in lower efficiency and power factor, and higherthan-necessary first cost for the motor and related control equipment.

MAINTENANCE

Inadequate maintenance lowers pump system efficiency, causes pumps to wear out more quickly and increases costs. Better maintenance will reduce these problems and the most important - to save energy.

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Proper maintenance includes the following:

- Replacement of worn impellers, especially in caustic or semi-solid applications.
- Bearing inspection and repair.
- Bearing lubrication replacement, once annually or semiannually.
- Inspection and replacement of packing seals.
- Inspection and replacement of mechanical seals.
- Wear ring and impeller replacement.
- Pump/motor alignment check.
- The largest opportunity is usually to avoid throttling losses.
- Typical energy savings for operations and maintenance are estimated to be between 2% and 7% of pumping electricity use

MONITORING

Monitoring in conjunction with operations and maintenance can be used to detect problems and determine solutions to create a more efficient system. Monitoring can determine clearances that need be adjusted, indicate blockage, impeller damage, inadequate suction, operation outside preferences, clogged or gas-filled pumps or pipes, or worn out pumps.

Monitoring should include:

- Wear monitoring
- Vibration analyses
- Pressure and flow monitoring
- Current or power monitoring
- Differential head and temperature rise across the pump (also known as thermodynamic monitoring)
- Distribution system inspection for scaling or contaminant build-up

CONTROLS

The objective of any control strategy is to shut off unneeded pumps or to reduce the load of individual pumps. Remote controls enable pumping systems to be started and stopped relatively quickly and accurately, and reduce the required labor with respect to traditional control systems.

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MORE EFFICIENT PUMPS

Pump efficiency may degrade 10% to 25% in its lifetime. Industry experts however point out that this degrading performance is not necessarily due to the age of the pump but can also be caused by changes in the process which may have caused a mismatch between the pump capacity and its operation.

Nevertheless, it can sometimes be more efficient to buy a need pump, also because newer models are more efficient.

WATER MANAGEMENT

Material which is not measured cannot be saved hence it is advisable to put a meter and check the consumption on regular basis. A record shall be maintained for tank cleaning, water cooler cleaning and purifier maintenance with water consumption. Following provision shall be implemented for water conservation:

- Providing self closing (push cock) type pillar cock and bib cock to avoid wastage of water due to not closing the pillar tap.
- Provide low flow fitting and fixtures i.e. pillar cock and bib cock with 6/3 liter flush tank
- Providing automatic auto sensor based flushing to urinal in place of normal flushing cistern which operates 24 hours.
- Providing dual flushing cistern for water closet 3 -6 litres in place of 10 liters cistern.
- All WC ablution taps to be self closing taps.
- Consumption requirement of fresh water will be reduced by 70 % by using.
- Provide drip irrigation and high efficient sprinkler irrigation system
- Rain water harvesting shall be adopted to enhance ground water table.
- Repair leakage in water distribution system on priority.
- Develop a regular maintenance protocol.
- Plant drought resistance trees (list enclosed).

WASTE WATER MANAGEMENT

Provide neutralization tanks for chemical waste.

FIRE AND SAFETY

Following steps will make campus safe from Fire

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- Evacuation plan is to be prepared and adopted.
- Provision of more fire extinguisher shall be made.
- Additional spiral stair case will make evacuation effective.
- Provide 20 kg fire extinguisher with moveable trolley to fight heavy fire and forest fire.

UNIVERSAL ACCESSIBILITY

Following steps will make property friendly for all:

- Provide more ramp at suitable location.
- Provide Tactile floor for Blind.
- Provide signage in Braille Language.
- Provision for handicap toilet can be made.

CARBON FOOT PRINT

Carbon foot print can be reduced by adopting following steps:

- Discourage driving by charging heavy parking charges and providing preferred parking for by-cyclers.
- Implement effective energy use system.
- Switch off lights, fan and equipments not in use.
- Preferred parking or charging point can be provided for electronic vehicle.
- Encourage vehicle users for pollution check and periodical check-up of air pressure of their vehicles.
- Use only energy efficient office and lab equipments.
- Maximum use of natural light and ventilation.
- Encourage users to walk by providing safe and covered pathways.

HEAT ISLAND IMPACT

Heat Island impact can be reduced by adopting following steps:

- Plant more and more trees.
- Provide light colour on hard surface.
- Shade roof using solar panel.
- Use grass pavers in place of regular pavers.
- Watering of road and other hard surface using recycle water.
- Use energy-efficient appliances and equipment



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POLICIES

GREEN AUDIT POLICY

Green Audit Policy is an act of determining whether operations and practices regarding General maintenance, Energy use, Water management and Waste management are in compliance with recommendations made in Green Audit Report and industries best practices. The policy is framed to review the actions in specified period of time. A committee can be formed to monitor status fof item in Green Audit compliance.

- Verify compliance with environmental regulations, internal policies, and accepted practices.
- Evaluate the effectiveness of Green "management systems" in place.
- Periodic review of records
- Identify and assess any reasonably foreseeable risks associated with hazardous conditions attributable to operations and prevent or mitigate such risks.
- An effective Green auditing program increases overall management effectiveness and comfort with the knowledge that the risks of potential exposure to adverse environmental issues are being addressed.

TOBACCO FREE POLICY

The University is committed formaintaining a safe and healthy work and academic environment, improving indoor and outdoor air quality, and promoting the comfort of students, faculty, staff, and guests. Intent of this policy is to prohibit consumption of all type of tobacco/ product contains traces of tobacco in the campus. This policy not only prohibit teaching, non-teaching staff and students but also applicable on visitors too.

The statement says that chewing, smoking or inhaling any is prohibited in all the nick and corner of the University. This apunishable offence and the culprit will be fined Rs.500/- against this act.

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POLY-BAG PROHIBITION POLICY

Through this policy management wants to enforce States policy to ban use of Poly bags. This policy will encourage staff and students to use alternative of poly bag.

NO VEHICLE POLICY

The University is committed to reduce carbon foot print and enhance academic environment, improving indoor and outdoor air quality, and promoting the comfort of students, faculty, staff, and guests. Intent of this policy is to prohibit use of private vehicle and to promote use of public conveyance, vehicle pooling etc. This policy is not only applicable to teaching, non-teaching staff and students but also applicable on visitors too.

The statement encouraging use of public conveyance and vehicle pooling will be displayed in all the nick and corner of the University. High parking fee can be levied on person using private vehicle.

BY-CYCLE POLICY

The University is committed not only to reduce carbon foot print and enhance overall health of students, faculty, staff, and guests, intent of this policy is to encourage physical activity. This policy is not only applicable to teaching, non-teaching staff and students but also applicable on visitors too.

The statement encouraging use of cycle will be displayed in all the nick and corner of the University. Preferred parking will be provided near academic building for cyclists.

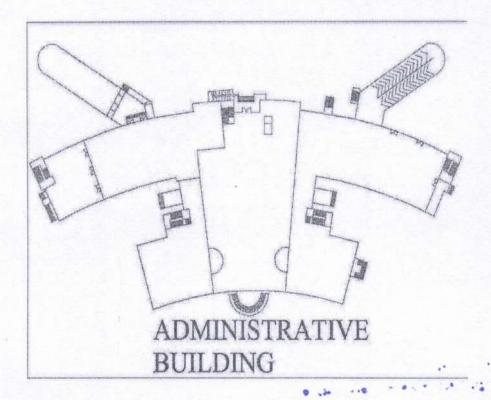
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SITE PLANANNEXURE A

BUILDINGS GROUND FLOOR PLANS



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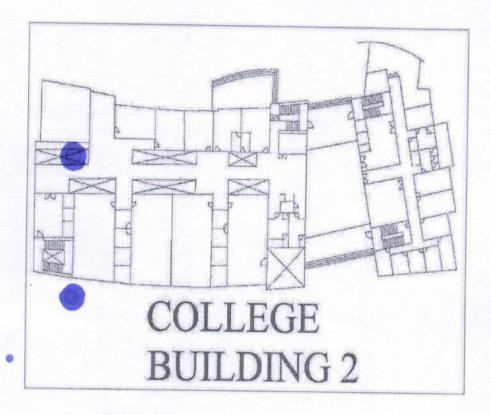
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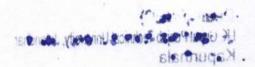
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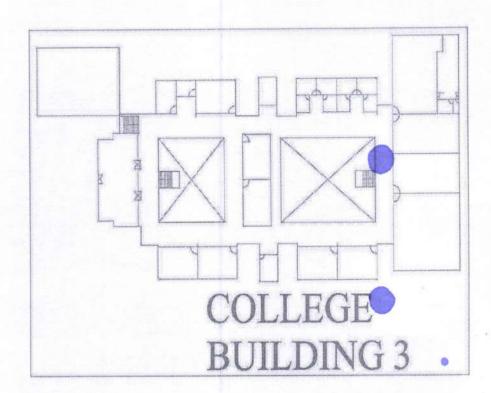


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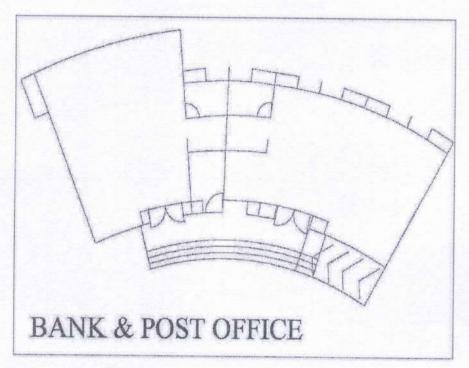


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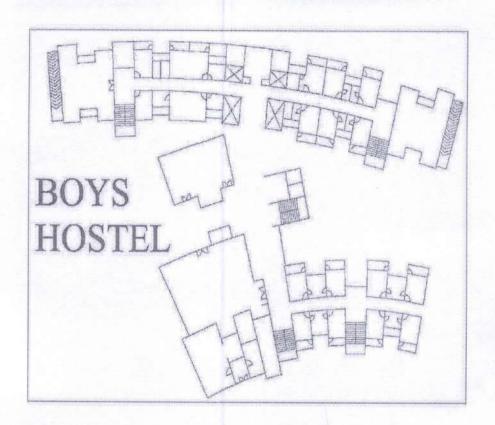
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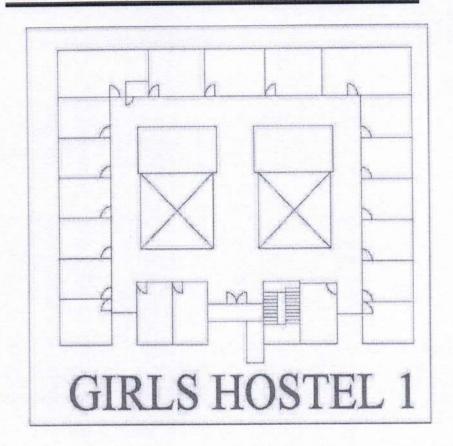


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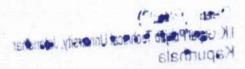




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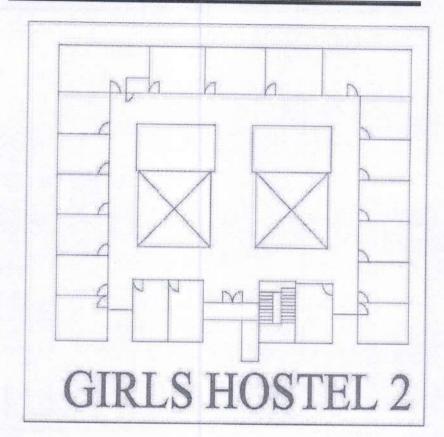
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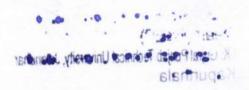


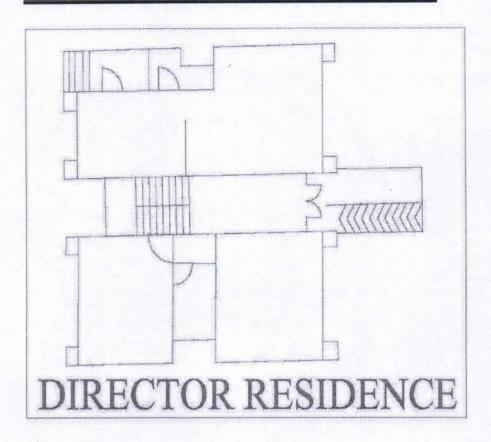
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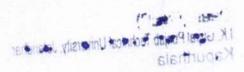
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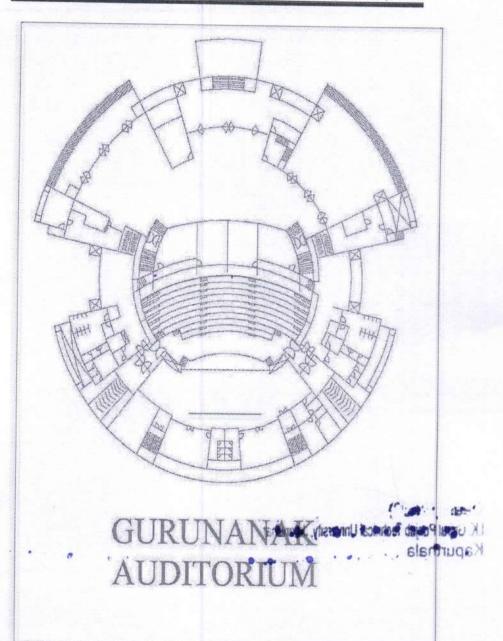


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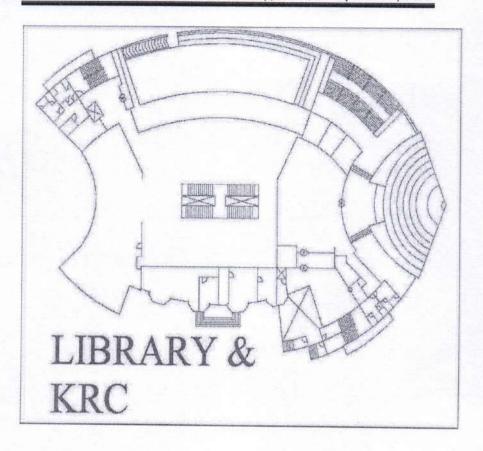


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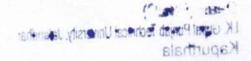
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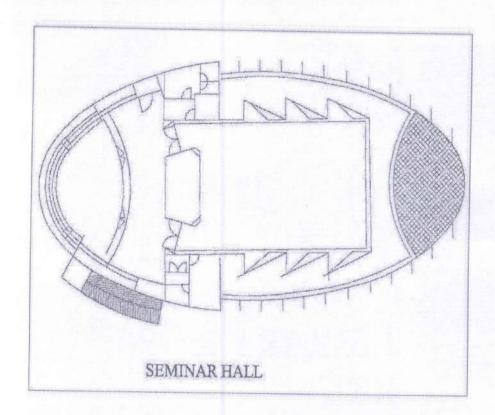


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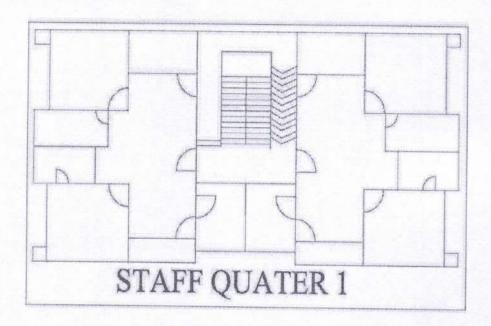
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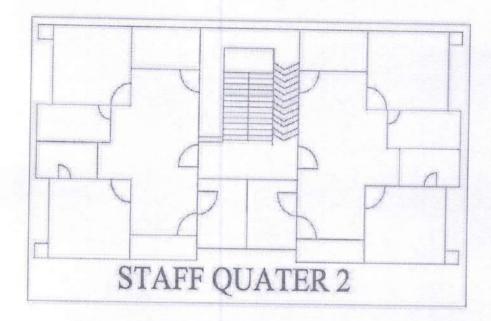


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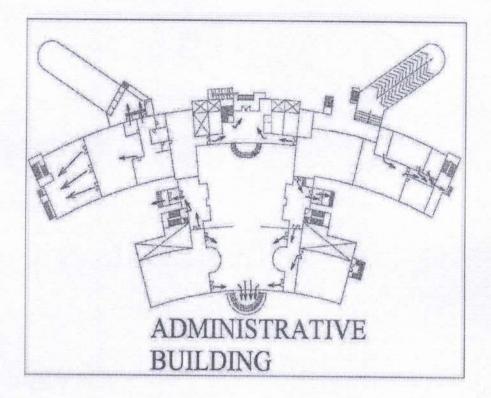
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FIRE ESCAPE ROUTE



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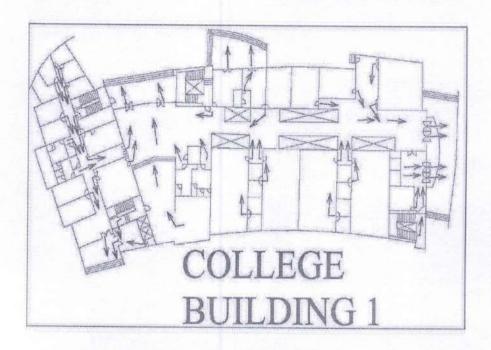
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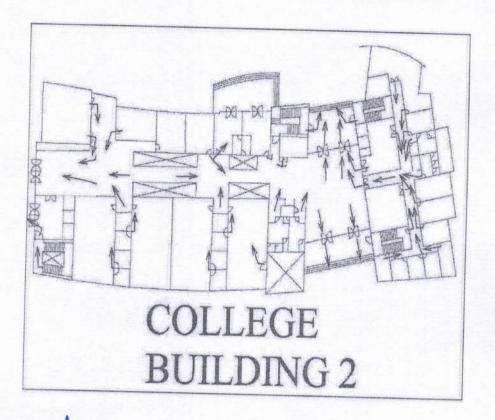
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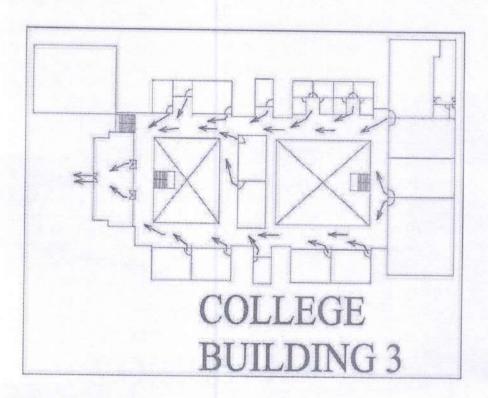
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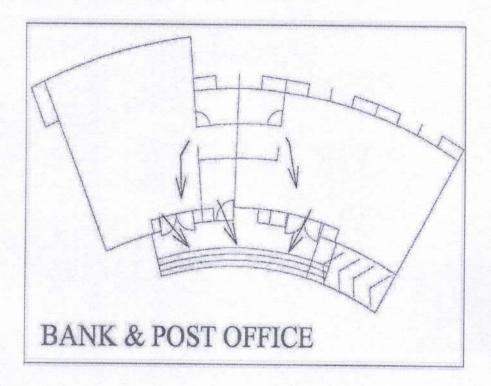


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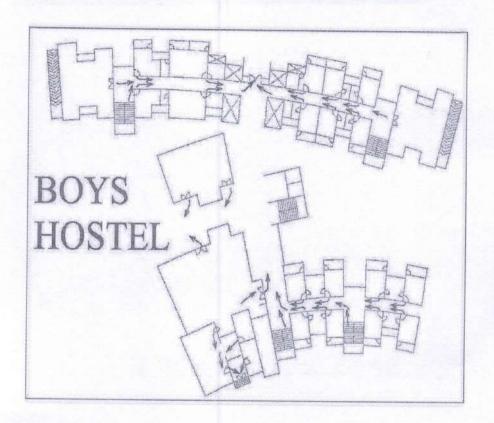
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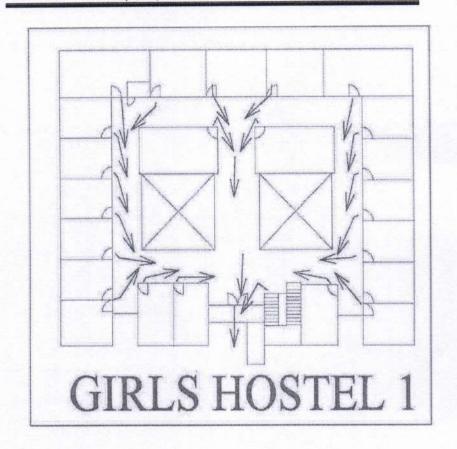


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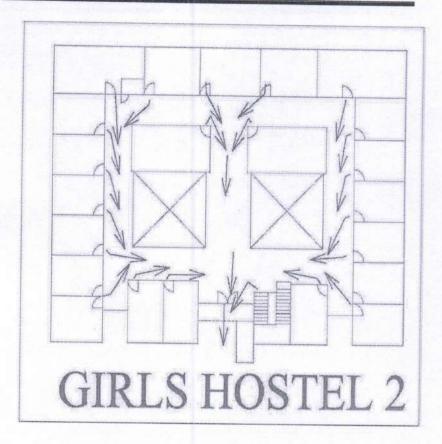
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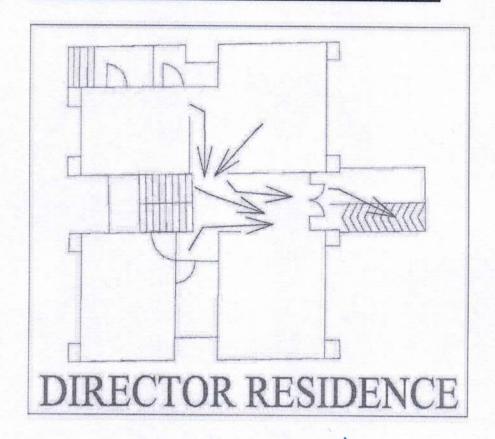


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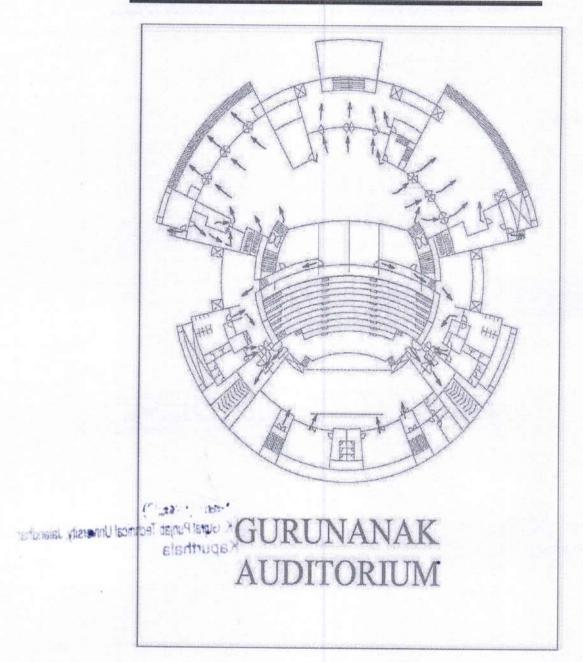
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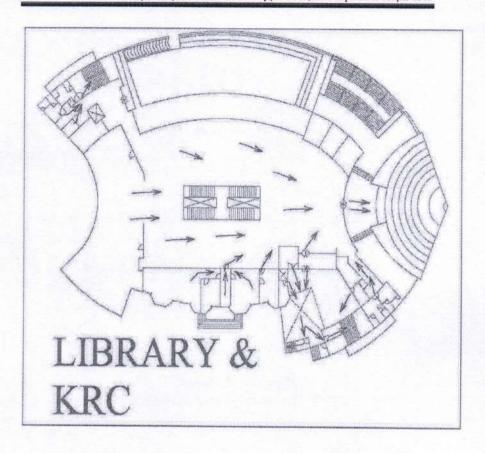
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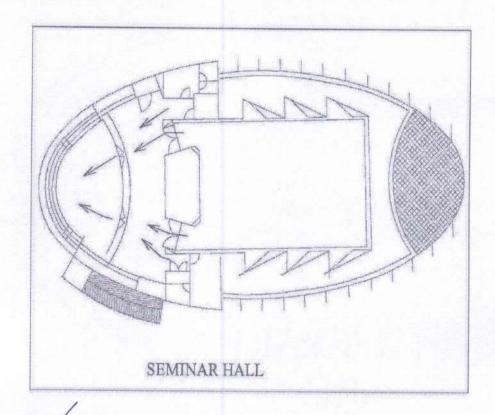
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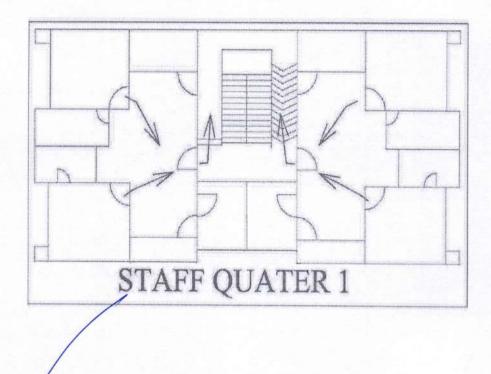
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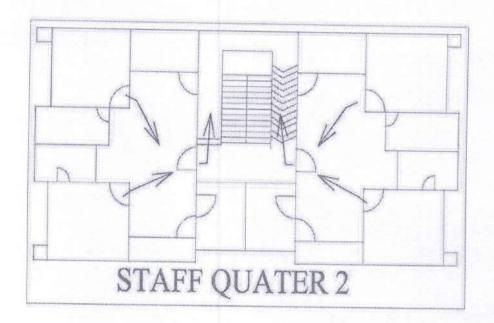
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ANNEXURE B

DROUGHT RESISTANT SPECIES

Tree species	Common Name	Tree species	Common Name	
Prosopis cineraria	Khejri	Azadirachtaindica	Neem	
Capparisdeciduas	Kiari , Caperbrush	Diospyrosmelanoxy on	Tendu	
Tamarixaphylla		Ougeiniaoojeinensis		
Acacia tortillas		Commiphoracaudat		
Zizyphusnummularia	JungliBer	Bauhinia variegata	Kachnar	
Prosopisjuliflora	Kikar	Eucalyptus tereticornis		
Tecomellaundulata	Rugtora/Wavy leafed Tufmella	PongamiaPinnata	Karanj	
Colophospermummop ane		Casiasiamea		
Salvadoraoleoides		Anacardiumoccident	Cashew	
Acacia aneura		Holopteliaintegrifolia		127 135
Parkinsonia aculeate		Acacia catechu	Katha	alian to the steam
Dichrostachys cineraria		Boswelliaserrata	Lobaw	curthali
Acacia holosericea		Buteamonosperma	Palash	
Borassusflabellifera	Tar	Cassea fistula	Amaltas	
Tree species	Common Name	Tree species	Common Name	
Grewiatenax	Falsa	Albiziaamara		
Commiphorawightii	Guggal	Dalbergialatifolia	Eastern Rose wood	
Acacia seyal		Erythrinalndica	Coral Tree	
ucalyptus	Eucalyptus		Banyan	

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Tree species	Common Name	Tree species	Common Name
camaldulensis			
Hardwickiabinnata		Ficusreligiosa	Peepal
Pithecelobiumdulce	Jungle Jalebi	Santalum album	Sandal
Celtisaustralis		Syzgiumcuminii	Clove
Acacia albida		Terminaliaalata	
Albizialebbek	Shirish	Madhucalatifolia	Mahua
Acacia nilotica	Babul	Acacia auriculiformis	
Acacia ferruginea		Terminaliabellirica	Harad
Casuarinaequisetifolia	Jhar	Dendrocalamusstrict us	LathiBaans
Leucaenaleucocephal a	Subabul	Moringaoleifera	Drumstick
Meleaazedirach		Terminaliaarjuna	Arjun
Sesbaniagrandiflora			
Tamarindusindica	Imli		
WrightiaTinctoria			
Morusindica/alba	Mulberry		

Source: Manual on norms and standards for EC of large construction projects-

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ANNEXURE C

EXPENDITURE ON GREEN INITIATIVES AND WASTE **MANAGEMENT**

Year wise Expenditure

Year	Expenditure on green initiatives and waste management excluding salary component (INR in Lakhs)
2013-14	
2014-15	
2015-16	
2016-17	
2017-18	

Carrie delle Detail breakup of expenditure

> S.NO YEAR LIGHT WATER PLANTS 2013-14 2014-15 2 3 2015-16 4 2016-17 5 2017-18

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ANNEXURE D

STANDARD FORMAT FOR ENERGY RECORD

1. Standard format for electricity record Meter No/ IBRS No Location

S.No.	Duration of bill	Reading in Last bill	Reading in this bill		Electricity use charges	Fixed charges	Other Charges	Power (P.F.) Factor	Payment details
				Salanoac Penning — Penge Salanoac Penning — Penge Salanoac Penning — Penge	CONTRACTOR OF THE				

2. Standard format for LPG record

Connection No. Location of Use

S.No.	Date of Refill	Supply agency	Amount Payable in	Weight of Cylinder	Date of use	Duration of use	Date and time of
			this bill				empty

Standard format for machine operation

S.No.	Date	Time from	Time till

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ANNEXURE E

CALCULATION FOR PERCENTAGE OF ELECTRICITY CONSUMED FOR LIGHTING

BY LED

Total lighting load

S.No	LUMINAIRES	Connected load in KW
1	Tube light T5/T8	139
2	CFL	80.6
4	LED (B)	84.1
5	Metal Halide	92
	Total energy consumption (A)	395.7
	Total energy consumption by LED	84.1
	Percentage of energy consumption by LED (C/D)x100	



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ANNEXURE F

Electricity consumption from April 2015 to September 2019

Months	MDI	KWH	KVAH	PF	CD In KVA	SL In KW
Sep-19	1460	332708	298200	1.12	3396	3056.84
Aug-19	2080	459931	395160	1.16	3396	3056.84
Jul-19	-	-	-			
Jun-19	1329	260418	263882	0.99	3396	3056.84
May-19	1080	239392	241636	0.99	3396	3056.84
Apr-19	700	138808	139830	0.99	3396	3056.84
Mar-19	661	100066	100428	1.00	3396	3056.84
Feb-19	980	186272	186534	1.00	3396	3056.84
Jan-19	962	235852	236324	1.00	3396	3056.84
Dec-18	916	174178	174524	1.00	3396	3056.84
Nov-18	562	99900	100222	1.00	3396	3056.84
Oct-18	1476	136126	136376	1.00	3396	3056.84
Sep-18	1476	214670	216780	0.99	3396	3056.84
Aug-18	1627	293294	296822	0.99	3396	3056.84
Jul-18	1264	265010	270002	0.98	3396	3056.84
Jun-18	1377	249802	255558	0.98	3396	3056.84

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Months	MDI	KWH	KVAH	PF	CD In KVA	SL In KW
May-18	1249	243638	249620	0.98	3396	3056.84
Apr-18	1056	163470	167794	0.97	3396	3056.84
Mar-18	636	106854	109732	0.97	3396	3056.84
Feb-18	832	151318	152828	0.99	3396	3056.84
Jan-18	1117	213330	217020	0.98	3396	3056.84
Dec-17	779	227960	237594	0.96	3396	3056.84
Nov-17	-	-				
Oct-17	1016	144300	147714	0.98	3396	3056.84
Sep-17	1203	404210	415843	0.97	3396	3056.84
Aug-17	-	-	-			
Jul-17	1907	318844	331643	0.96	2000	2000
Jun-17	1337	252295	260709	0.97	2000	2000
May-17	1086	218533	226120	0.97	2000	2000
Apr-17	1061	149885	155781	0.96	2000	2000
Mar-17	299	104912	113442	0.92	2000	2000
Feb-17	753	139915	143152	0.98	2000	2000
Jan-17	738	164064	168203	0.98	2000	2000

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Months	MDI	KWH	KVAH	PF	CD In KVA	SL In KW
Dec-16	691	108339	110515	0.98	2000	2000
Nov-16	229	63431	66089	0.96	2000	2000
Oct-16	891	106792	111347	0.96	2000	2000
Sep-16	931	164686	169064	0.97	2000	2000
Aug-16	891	199593	204407	0.98	2000	2000
Jul-16	1079	140935	143676	0.98	2000	2000
Jun-16	1128	165717	169046	0.98	2000	2000
May-16	810	138630	142485	0.97	2000	2000
Apr-16	625	78768	81198	0.97	2000	2000
Mar-16	162	42563	45174	0.94	2000	2000
Feb-16	613	90102	91963	0.98	2000	2000
Jan-16	640	134238	137931	0.97	2000	2000
Dec-15	640	134238	136931	0.98	2000	2000
Nov-15	615	91765	94127	0.97	2000	2000
Oct-15	567	74477	78732	0.95	2000	2000
Sep-15	868	192689	197078	0.98	2000	2000
Aug-15	836	125220	127280	0.98	2000	2000
Jul-15	884	118320	120320	0.98	2000	2000

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Months	MDI	KWH	KVAH	PF	CD In KVA	SL In KW
Jun-15	863	148620	150080	0.99	2000	2000
May-15	596	84520	86480	0.98	2000	2000
Apr-15	-	45940	47520	0.97		
Mar-15						
Feb-15						
Jan-15						

Abbreviations

Abbreviations	Full form		
MDI	Maximum demand (import)	PF	Power factor
KWH	kilo Watt Hour	CD	Contract Demand
KVAH	Kilo Volt Ampere Hours	SL	Sanctioned Load

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ANNEXURE G

BACK GROUND CALCULATION FOR CALCULATING CARBON FOOT PRINT

	LPG consumption				
S.N o	Description	Numb ers	weight of Cylinder in Kg	Months for operations	Total in Kg
1	BOYS HOSTEL	68	19	68	87856
2	GIRLS HOSTEL	16	15	12	2880
		20	12	12	2880
3	canteen	15	19	12	3420
-0.7.11		Total LI	PG consumption per y	ear	6300

S N o	Description	Num bers	Fuel consump tion liters/mo nth	Month s for operat ions	Tot al in liter
	Fuel for bus				
1	Own buses				
a	42 seater	1	560	12	672 0
	560 liter/month				
b	26 seater	2	250	12	600 0
	250 liters/month	- Lanceman Lance			
	distance 35 km per day				
2	hired buses				
а	52 seater	4	450	12	216 00
	450 liter/month	-			
	distance 40 per day				
	Private four wheeler approaching University per month (taking 20 working day in a month) with average running 20 km/day fuel efficiency 16 km/liter	100	25	12	300
	Total diesal consumption per year by vehicl	e ,			643

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DG Set Fuel consumption

S. N o	Location	Cap acit y in KVA	N o s.	Fuel consu mptio n per set lt/hr	Fuel cons ume d in a mont h in It	Months for operatio ns	Total in liters
1	G+7	62.5	1	12	48	12	6912
2	AB 3	82.5	1	14	56	12	9408
3	AB 3	180	1	30	120	12	43200
4	G+7	380	2	55	220	12	145200
5	AB1,AB2	500	2	80	360	12	345600
	Total diesal consumption per year by DG Set						550320

Note: operation time considering 4 hours a day

Total diesel consumption in liters per

614640

year in the campus

	Calculation for Petrol consumption				
S.No	Description	Number s	Fuel consum ption liters/mo nth	Month es for operat ions	Tot al in lite rs
1	Private four wheeler approaching University per month (taking 20 working day in a month) with average running 20 km/day fuel efficiency 16 km/liter	100	25	12	300
2	Private Two wheeler approaching University per month (taking 20 working day in a month) with average running 20 km/day fuel efficiency 50 km/liter	125	8	12	120
	Total diesal consumption per year				420 00

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Calculation for Public conveyance bus

80% of the

	above	2708			
S.N	number of	Averag	Nos	Monthes for	Total no of
0	users	e		operations	users
		distanc			
		е			
		covere			
		d per			
		day			
1	2708	10	20	12	6499200

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