

AGENDA

45th Academic Council Meeting (29th June, 2015)



I.K. GUJRAL PUNJAB TECHNICAL UNIVERSITY JALANDHAR-KAPURTHALA HIGHWAY



Agenda 45th Academic Council Meeting (29th June, 2015)

AGENDA POINTS FOR 45th MEETING OF ACADEMIC COUNCIL SCHEDULED TO BE HELD ON 29 JUNE 2015 AT 12:30 PM AT IKG-PTU CAMPUS MOHALI

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AGENDA POINTS FOR 45th MEETING OF ACADEMIC COUNCIL SCHEDULED TO BE HELD ON 29th JUNE 2015 AT 12:30 PM AT IKG-PTU CAMPUS MOHALI.

A. STATUTORY AGENDA

45.01 To confirm the minutes of 44th Academic Council meeting held on 09th June, 2014.

Minutes of 44th Academic Council meeting held on 09th June, 2014 were circulated to all members and are enclosed at Annexure – I. No comments were received.

The item is placed before the Academic Council for its confirmation.

45.02 Action Taken Report (ATR) of the 44th Academic Council Meeting.

The action taken report on the 44th meeting of the Academic council is enclosed as Annexure – II.

The item is placed before the Academic Council for information.

45.03 Award of Ph.D.

On the recommendations of the RDC the following candidates have completed the requirement for award of Ph.D. degree.

S. No	Registrati on No.	Date of Viva-voce	Name	F Name	Branch	Title of Thesis
1.	14.19.04	08-01-15	Harsimarjeet Khurana	A.P.S. Bedi	Computer Science & Engineering	DEVELOPMENT AND IMPLEMENTATION OF NEW PAIRING TECHNIQUE FOR STUDYING THE EFFECTIVENESS OF PAIRS ON PERSONA AND PROGRAMMING CODE.
2.	11.67.09	12-01-15	Sukhwinder Kaur	Kuldeep Singh	Management	PERFORMANCE OF MUTUAL FUNDS IN INDIA.
3.	1111017	15-01-15	Ruchika Bagga	Harjinder Bagga	Physics	RARE EARTH DOPED GLASSES AND GLASS CERAMICS:OPTICAL & PHYSICAL CHARACTERIZATION
4.	01.28.09	19-01-15	Harpreet Gaba	S. Gurbax Singh Gaba	Civil Engineering	STRUCTURAL HEALTH MONITORING AND RETROFITTING OF RCC RECTANGULAR SLABS
5.	02.38.09	23-01-15	Kanika Sharma	Lok Nath Sharma	Electronics and Communication Engineering	MEDIUM ACCESS CONTROL AND ROUTING BASED LIFETIME ENHANCEMENT FOR WIRELESS SENSOR NETWORKS
6.	11.94.09	06-02-15	Parul Khanna	Rajesh Kumar Bhandari	Management	MANAGING NON PERFORMING ASSETS OF COMMERCIAL BANKS IN COMPETITIVE ERA.
7.	14.34.08	1 6- 02-15	Amit Sharma	Subhash Sharma	Computer Science & EngineerIng	A DYNAMIC INTRUDER ANALYSER FOR INTRUSION DECTECTION SYSTEM.
8.	01.21.08	13-04-15	Neeru Bansal	Sh. Harmesh Kumar Bansal	Civil Engineering	INVESTIGATION OF SFRC CORNERS UNDER OPENING BENDING MOMENT
9.	11.96.09	20-04-15	Sushendra Kumar Misra	Sh. V. D. Mishra	Management	A STUDY OF FACTORS AFFECTING ADOPTION OF INTERNATIONAL FINANCIAL REPORTING STANDARDS IN INDIA
10.	02.46.09	23-04-15	Neeru Malhotra	Sh. Chaman Lal Kochher	Electronics & Communication Engineering	FINITE DIFFERENCE & HIERARCHICAL FINITE ELEMENT BASED FORMULATION OF ELECTROMAGNETIC APPLICATORS

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11.	1011010	27-04-15	Vikas Duggal	Sh. Ajay Kumar	Physics	ASSESSMENT OF RADIOLOGICAL RISK DUE TO NATURAL RADIONUCLIDES IN THE ENVIRONS OF NORTHERN RAJASTHAN
12.	11.68.09	05-05-15	Harwinder Pal Kaur	S. Balvir Singh	Management	COMMODITY TRADING IN AGRICULTURE PRODUCTS
13.	05.40.08	11-05-15	Harish Kumar	Sh. Bhasker Datt	Mechanical Engineering	STUDIES IN SURFACE MODIFICATION WITH MAGNETICALLY ASSISTED STAINLESS STEEL PINS
14.	1106010	14-05-15	Jagdeep Singh	Santokh Singh	Mechanical Engineering	A STUDY TO IMPROVE THE PERFORMANCE OF SMALL MEDIUM ENTERPRISES USING CONTINUOUS IMPROVEMENT STRATEGIES
15.	1006023	20-05-15	Amit Handa	Sh. Tilak Raj Handa	Mechanical Engineering	STUDIES OF MECHANICAL PROPERTIES AND HOT CORROSION BEHAVIOUR OF FRICTION WELDED DISSIMILAR STEFIS
16.	1003003	21-05-15	Harish Kundra	Kashmir Chand Kundra	Computer Science and Engineering	ESTIMATION OF NATURAL TERRAIN CLASSIFICATION- A NATURAL COMPUTING APPROACH
17.	02.50.10	05-06-15	Monish Gupta	Sh. Pawan Kumar	Electronics & Communication Engineering	MODELLING OF METAMATERIALS FOR RADIO AND MICROWAVE FREQUENCY APPLICATIONS
18.	17.14.09	19-06-15	Akshay Girdhar	Sh. Ranjit Lal Girdhar	Computer Science and Engineering	INVESTIGATIONS OF PRE-PROCESSING TECHNIQUES FOR MEDICAL ULTRASOUND IMAGES

The matter is placed before the Academic Council for its recommendations to the BOG for the approval to award degrees.

B. INFORMATION AGENDA

45.04 To inform about change of name of University to I.K. Gujral Punjab Technical University and establishment of new University MRSSTU, Bathinda

The Government of Punjab has changed the name of the Punjab Technical University to I.K. Gujral Punjab Technical University which has already been notified by PTU vide Notification No PTU/Reg/559-580 dt. 20.05.2015 (Copy attached as Annexure -III)

A new University has also been established by the Govt. of Punjab vide Ordinance No. 4 of 2014 dated 15 Dec, 2014 the colleges falling in the Districts Bathinda, Barnala, Faridkot, Fatehgarh Sahib, Fazilka, Ferozepur, Mansa, Moga, Shri Muktsar Sahib, Patiala, Sangrur are being transferred to the new established University.

The item is placed before the council for information.

C AGENDA FOR DISCUSSION & RECOMMENDATIONS

45.05 To ratify Academic Calendar for session 2015-16.

The Academic Calendar for the session 2015-16 is placed at Annexure IV.

The item is placed before the council for ratification.

45.06 To approve Pre-requisite for Aeronautical Engg.

The BOS Aeronautical Engineering has given recommendations that there is no prerequisite subject for admission to 4th semester .i.e Lateral Entry to B. Tech. Aeronautical Engg.

The item is placed before the council for approval.

45.07 Relaxation to the deaf and dumb students from appearing in theory examination for the B.Sc. courses in Fashion Design and Textile Design being conducted by NIIFT, Mohali

A proposal has been received from NIIFT regarding granting of relaxation to the deaf and dumb students from appearing in theory examination for the B.Sc. courses in Fashion Design and Textile Design being conducted by NIIFT, Mohali

The college has attached Minutes of the meeting of Faculty of Design and Fine Arts of Punjab University, Chandigarh regarding the same.

The item is placed before the council for discussion and approval.

45.08 Approval for counting the duration of Ph. D. from the date of approval of Ph.D. synopsis instead from the date of enrollment for Ph. D.

There are a number of students who could not complete their PhD thesis in maximum duration of 8 year due to various reasons such as delay in approval of the PhD synopsis from Research degree committee RDC, administrative delays and other personal reasons of the students. Maximum duration for completion of PhD degree after all delay condons from Vice Chancellor is 8 years. However, some of the students have crossed their limit of 8 years due to delay in approving their PhD synopsis from RDC and Administrative delays. Therefore, to protect the interest of PhD students following changes are proposed:

Existing Regulations	Proposed Changes
Maximum duration of PhD degree is 5 years with further extension from Vice Chancellor maximum iimit is 8 years	 If there is delay of more two years in approval of PhD synopsis due to 1) delay in receipt of evaluation report from subject experts. 2) Administrative delays in conducting RDC meeting. The duration of PhD degree may be counted from the date of approval of PhD synopsis by RDC.
	However, if candidate wishes to submit his/her thesis early and do not wishes to avail the benefit of this extension he/she can do so after a gap of one year from the date of synopsis approval.

The above proposed option will benefit students enrolled prior to 2010. Proposed change in the guidelines may be incorporated in new PhD guidelines and may be made effective for all Phd Students.

The item is placed before the Council for approval.

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45.09 To approve the minutes of various Board of Studies

ਪੰਜਾਬ ਟੈਕਨੀਕਲ ਯੂਨੀਵਰਸਿਟੀ

The meetings of the various Board of Studies were held and the following syllabus were reviewed and available at PTU website. Minutes are placed at **Annexure – V**.

1) BOS Management/Commerce/Business Economics.

- Scheme and Syllabus of 1st & 2nd Semester of B.Sc Business Economics, Batch 2014 was finalized.
- Scheme and Syllabus of 1st & 2nd Semester of Bachelor of E-commerce, Batch 2014 was finalized.
- Scheme and Syllabus of 1st & 2nd Semester of BBA (RM), Batch 2014 was finalized.
- Scheme of 1st 6th Semester and syllabus of 1st-2nd semester of Bachelor of Service Industry Management, Batch 2014 was finalized.
- In view of the change of the pattern of question papers has been revised form 2013 it is advised by the BOS that question papers of December 13 and June 14 sessions should be uploaded on the website for the ease of students.
- Scheme and Syllabus of 1st & 2nd Semester of BRDM, Batch 2014 was finalized.
- BOS is of the view that all courses of Management/Commerce/Economics being professional courses, the scheme and syllabus has been so arranged so that the knowledge is expanded from basic to advanced semester wise. Therefore, 2nd semester cannot be studied directly without studying 1st semester. Hence, BOS is of the opinion that from session 2015-16 onwards direct admissions to 2nd semester should be made but colleges may start separate batches in January Session.
- Scheme of 1st 4th Semester and syllabus of 1st semester of Regular MBA, Batch 2015 was finalized. The name proposed by PTU Nalanda for the course if MBA(Hons.). The same is sent to Dean Academics for approval.
- In following courses the suggested nomenclature to be changed is as follows:
 - BRDM: BBA (RDM)
 - Bachelor of Service Industry Management: BBA(SIM)
 - Bachelor of E-commerce: BBA (E-commerce)/B.COM (Ecommerce)

2) BOS Food Technology Framed new syllabus

- 1) B.Sc. Food Technology Batch 2014, Semester 1st to 2nd
- 2) B.Tech Food Technology, Batch 2014, semester upto 4th
- 3) BOS Agricultural framed new syllabus
- 1) B.Sc. Agricultural, Batch 2014 upto 4th semester
- 4) BOS Chemical Engg.
- 1) Framed new syllabus of B.Tech Petrochem & Petroleum Refinery Engg (3-5 Sem) Batch 2013
- 2) Revised the syllabus of M.Tech Chemical Engineering Batch 2014, Batch 2015



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5) BOS Human Value & Professional Ethics

Copy attached.

6) BOS Journalism & Mass Communication

- 1) MoM dated 23/06/2015 is attached.
- 2) MoM dated 13/03/2015 is attached.
- 3) Master of Mass communication and Media Management Batch 2015
- 4) B.Sc. (Media entertainment and Film Technology) Batch 2015
- 5) M.Sc. (Journalism & Mass Communication) Batch 2015
- 6) B.Sc. Journalism & Mass Communication, Batch 2015
- 7) M.A. Journalism & Mass Communication, Batch 2015
- 8) B.A. Journalism & Mass Communication, Batch 2015
- 9) M.Sc. Mass Communication, Batch 2015 (PITK)
- 10) M.Phil Journalism & Mass Communication, Batch 2015 (PITK)
- 11) Eligibility of M.Sc. and B.Sc. (Journalism & Mass Communication)

7) BOS Computer Science Engg

- B.Tech 3D Animation & Graphics Engineering, Batch 2012 upto 6th semester
- 2) M.Sc. (IT), Sem 1 to 4, Batch 2015
- 3) B.Sc. (IT), Sem 1 to 6, Batch 2015
- 4) M.Sc. (CS), Sem 3 to 4, Batch 2013
- 5) B.Sc (CS), Sem 5th to 6, Batch 2013
- 6) M.Tech CSE Batch 2015, 1st semester
- 7) BMCI Batch 2014, upto 5th semester
- 8) MCA Batch 2015 1st to 6th sem
- 8) BOS Marine Engg.
- 1) B.Tech Marine Engg Batch 2013 semester 1st to 5th
- 9) BOS ECE
- 1) B.Tech ETE, Sem 7 to 8, Batch 2011
- 2) B.Tech Electronics Engg (7-8 sem) Batch 2012

10) BOS Clinical Research

- 1) M.Sc. Clinical Research Batch 2014
- 2) Advance Diploma in Clinical Research Batch 2014
- 3) Diploma in Clinical Research Batch 2014
- 4) Question Paper Pattern of above courses.
- 11) BOS Pharmacy
- 1) MoM dated 13/04/2015 attached.
- 12 Syllabus of M.Tech. (Transportation Engineering) and M.Arch. running at PIT, Mchali

The item is placed before the Council for approval.

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45.10 To approve the Academic Regulations for B. Tech. (Part-time)

Bachelor of Technology (Part-time)/ Bachelor of Engineering Courses have been approved in some of the colleges under PTU by AICTE.

A committee was constituted to propose the Academic Regulations for Bachelor of Technology (Part-time)/ Bachelor of Engineering Courses. The proposed Academic Regulations for Bachelor of Technology (Part-time)/ Bachelor of Engineering Courses are placed at Annexure – VI.

The item is placed before the Council for ratification.

45.11. Credit Based System

The University is introducing Credit Based System for batch 2015-16 onwards. A committee was constituted regarding the same. Recommendations of the committee were discussed in the previous meeting and Dean (Academics) informed that as per the existing system internal and external will continue and only marks will be converted to credits as per the syllabus and the same shall be implemented from 2014-15 batch of admission onwards.

The suggestions / comments were received from various members/academicians. This scheme shall be applicable from the new batch starting from academic session 2015-16.

The final Credit Based System formation is placed at Annexure -- VII.

The item is placed before the council for approval.

45.12. Revision of Eligibility for MCA (LE), BCA/B.Sc.(IT)/BAMT (LE), M.Sc. IT (LE) and B.Sc. CS (1stYr)

S.No.	Course	Existing Eligibility	Revised Eligibility
1	MCA (LE)	Recognized Bachelor Degree of minimum 3 yrs duration in BCA, B.Sc (IT/ Computer Science) with Mathematics as a course at 10+2 level or at Graduate Level and have obtained at least 50% (45% in case of candidate belonging to reserved category) at the qualifying Examination	 Graduation in any stream with 1 year PGDCA/PGDIT or Equivalent (from a recognized university) with mathematics as a course at 10 + 2 level or at a graduation level). Or Bachelors degree in BCA, B Sc. (IT/Computer Science) (from a recognized university) with mathematics as a course at 10 + 2 level or at a graduation level. Or B Tech. in CSE/ IT (or equivalent). or M Sc. IT/ CS with mathematics as a course at 10 + 2 level or at a graduation or PG level.

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46.14 To introduce Cyber Security/ Information Security as a subject at UG/PG level.

UGC vide D.O. No. 14-7/2009 (CPP-II) dated 16 January 2013 has forward the following recommendations of the Task Force on National Security System

"UGC and AICTE would ensure that Cyber Security / Information Security is introduced as a subject in the Universities / technical institutions at the under-graduate and postgraduate level."

Accordingly, the University has prepared the syllabus for the same and is placed at Annexure -IX.

The item is placed before the council for discussion and approval.

46.15 Pre-requisite

The revised pre-requisites have been notified vide Notification No. PTU/Reg/Notification/558 dated 18/03/2015 regarding pre requisite and is placed at Annexure-X.

The item is placed before the Council for ratification.

45.16 Any other item with the permission of the Vice-Chancellor.

PTU עודיש למהלומה קוהלופיסואבלו

Minutes of 46th Academic Council Meeting (20th October, 2015)

MINUTES OF 46th MEETING OF ACADEMIC COUNCIL HELD ON 20th OCTOBER 2015 AT 12:00 PM AT IKG-PTU CAMPUS, MOHALI

A. STATUTORY AGENDA

46.01 To confirm the minutes of 45th Academic Council meeting held on 29th June, 2015.

Council confirmed the minutes of 45th Academic Council meeting held on 29th June, 2015.

46.02 Action Taken Report (ATR) of the 45th Academic Council Meeting.

Council noted the action taken report on the 45th meeting of the Academic.

46.03 Award of Ph.D.

The council has recommended the following candidates for the award of Ph.D degree to BOG. The council has also recommended the candidates at Sr. No. 24 which was put as special item with the permission of the chair:

0	Destates	DI				
S.	Registra	Date of	Name	F Name	Branch	Title of Thesis
No	tion No.	Viva-voce				
1.	04.09.07	12-06-14	Saroj	Ram Bharosey Lal	Chemistry	SYNTHESIS, CHARACTERIZATION AND USE OF D-GLUCOSE BASED NON-IONIC GEMINI SURFACTANTS AS MICELLAR AND REVERSE MICELLAR MIMICS.
2.	02.40.09	16-06-14	Kamaljit Singh Bhatia	Beant Singh Bhatia	Electronics & Communication Engineering	INVESTIGATIONS ON OPTICAL ORTHOGONAL FREQUENCY DIVISION MULTIPLE ACCESS (OOFDMA) SYSTEMS
3.	11.74.09	16-06-14	Harsh Vineet Kaur	Bhajan Singh Banwait	Management	WORKING CAPITAL MANAGEMENT.
4.	03.22.09	25-06-14	Vipan Kumar	Mohinder Lal	Chemical Engineering	COMPUTATIONAL ANALYSIS FOR SEQUENCE ALIGNMENT AND PHYLOGENETIC ANALYSIS OF HUMAN HERPES VIRUS.
5.	11.62.08	27-06-14	Ritu Sehgal	Mangat Sehgal	Management	A STUDY OF CUSTOMER SATISFACTION DUE TO INTERNET BANKING OPERATIONS IN NORTHERN INDIA WITH SPECIAL REFERENCE TO STATE BANK OF INDIA.
6.	14.49.10	30-07-14	Anuj Kumar Gupta	Bhavnesh Gupta	Computer Science and Engg.	PERFORMANCE ENHANCEMENT OF ROUTING PROTOCOL IN MOBILE AD HOC NETWORKS
7.	17.10.09	30-07-14	Anshu Oberoi	B.L. Oberoi	Information Technology	QUALITY OF SERVICE (QOS) IN IP OVER WDM FOR OPTICAL NETWORKS
8.	05.39.08	13-08-14	Jasmaninder Singh Grewal	Gurbir Singh Grewal	Mechanical Engineering	STUDY OF NANOSTRUCTURED AND CONVENTIONAL TIAIN COATING ON BOILER STAINLESS STEELS WITH RESPECT TO EROSION AND WEAR

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9.	03.20.07	28-08-14	Shailendra Jagdish Naik	Jagdish Anant Naik	Chemical Engineering	STUDY ON APPLICATION OF STEAM AND HORIZONTAL WELL TECHNOLOGY TO	
10.	09.12.09	28-08-14	Deepika Bhalla	Hargurdev Singh Chopra	Electrical Engineering	IDENTIFICATION OF TRANSFORMER INCIPIENT FAULTS USING ARTIFICIAL INTELLIGENCE TECHNIQUES	
11.	02.22.04	30-08-14	Sukhbir Singh Walia	Balwant Singh Walia	Electronics & Communication Engineering	SOFT COMPUTING APPROACHES TO MANAGEMENT OF PROFESSIONAL EDUCATION	
12.	17.04.08	03-09-14	Pradeep Kumar Jaswal	Onkar Singh Jaswal	Computer Science and Engg.	THREE DIMENSIONAL MODELLING, RECOGNITION AND RECONSTRUCTION OF 3D SHAPES USING SIMULATION AND MODELING	
13.	1010019	29-09-14	Manav Malhotra	Keshav Malhotra	Pharmacy	SYNTHESIS AND STUDIES ON NOVE STEROIDAL 5A- REDUCTASE INHIBITORS TO BE USED IN THE TREATMENT OF BENIGN PROSTATION HYPERPLASIA	
14.	01.57.08	07-10-14	Surinder Singh Cheema	Rachpal Singh Cheema	Management	MANAGEMENT STRATEGIES FOR OBVIATE STRESS AMONG ARMY PERSONNEL	
15.	11.81.09	20-10-14	Amandeep Kaur	Jasbir Singh	Management	PERFORMANCE AND PROSPECTS OF HEALTH INSURANCE IN INDIA AN EMPIRICAL ANALYSIS	
16.	1006006	03-12-14	Harminder Singh	Mohinder Singh	Mechanical Engineering	STUDIES ON THE HIGH TEMPERATURE CORROSION BEHAVIOR OF NI-BASED COLD SPRAY COATING IN WASTE INCINERATION ENVIRONMENT	
17.	01.19.07	05-12-14	Subhash Chander Sharma	Kashi Ram Bhardwaj	Civil Engg.	ENVIRONMENTALLY BENIGN PROTOCOL USING PLANT BASED BIOMASS FOR POLLUTENTS REMOVAL FROM WASTE WATER	
18.	1006017	05-12-14	Sukhminder bir Singh Kalsi	Mohinder Singh	Mechanical Engineering	HOT CORROSION STUDY OF COLD SPRAY COATINGS IN MEDICAL WASTE INCINERATION ENVIRONMENT	
19.	07.29.09	06.7.15	Sargam Preet	J.S. Thukral	Mathematics	STUDY AND UNSTEADY LAMINAR FLOWS OF VISCOUS INCOMPRESSIBLE FLUID	
20.	14.46.09	14.7.15	Sangeeta Arora	C.L. Kochher	Computer Science and Engg.	HAAR WAVELET METHODS FOR SOLUTIONS OF PARTIAL DIFFERENTIAL EQUATIONS AND IMAGE RETRIEVAL	
21.	05.45.09	19.8.15	Amit Kumar Gupta	V. K. Gupta	Mechanical	DESIGN AND MODELLING OF SUPPLY CHAIN OF AN AUTOMOBILE ORGANIZATION	
22.	11.97.09	21.8.15	Ramandeep Saini	M. S. Saini	Management	COMPARATIVE ANALYSIS OF HRD PRACTICES IN SELECTED ORGANIZATIONS WITH SPECIAL REFERENCE TO PUNJAB STATE	
23.	1006008	19.8.15	Kamaljit Singh	S. Gurinder Singh	Mechanical Engineering	EXPERIMENTAL INVESTIGATION FOR DEVELOPMENT OF RAPID TOOLING USING FUSED DEPOSITION MODELLING	
24.	1009002	21.09.15	Anu Sahi	Ashok Kumar	Management	GROWTH AND PERFORMANCE OF MUTUAL FUND INDUSTRY IN INDIA WITH SPECIAL REFRENCE TO PLINLAR	

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B. AGENDA FOR DISCUSSION & RECOMMENDATIONS

46.04 To inform about status of autonomous colleges and approval of guidelines.

The item was discussed and the drafted policy approved by the council.

46.05 Golden Chance

The council approved the golden chance to clear the degree to students who could not complete their degree within stipulated time period as one time measure.

46.06 To establish Teaching Departments at IKGPTU

The item was discussed and approved.

46.07 Guidelines for enrolment of foreign students in Ph.D.

After detailed deliberation, the council approved the guidelines for registration of foreign students to Ph.D Programme.

46.08. To constitute Standing Committee on Unfair Means Cases for Regular and Distance Education Programme

The matter was discussed at length and the Council authorized the Vice-Chancellor to constitute the committee.

46.09 To inform about Establishment of new Colleges and variation in intake / addition of courses

The council approved the establishment of new colleges, variation in intake and addition of courses.

46.10 Formation of Dean (Faculties)

The detailed discussion was held and the council has approved the following Dean (Faculties) :

S. No.	Faculty	Name and Address	Email Id	Contact No.	No of Year Experi ence	Experience as Professor / Principal / Dean	Rese arch Publi catio n	Resear ch Grant (Lakhs)
1.	Electrical, Electronics & Allied Engineering	Dr. J.S. Dhillon SLIET, Professor Deptt of Instrumentation Longowal	j <u>sdhillonp@yaho</u> <u>o.com</u>	<u>97798 28833</u>	28.1	13	129	-
2	Chemical & Biotechnology	Dr. Amrit Pal Toor, Professor, Deptt of Chemical Engg, PU, Chandigarh	<u>aptoor@yahoo.c</u> <u>om,</u> aptoor@pu.ac.in	9814173832	24	16	35	

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ਪੰਜਾਬ ਟੈਕਨੀਕਲ ਯੂਨੀਵਰਸਿਟੀ Dr. Manjeet mspattar@yahoo 60 Singh 0175-3046323 16 6 3 Computer Patter, Professor Science. .com UCOE. Punjabi Engineering & University, Patiala Allied 0172-2292000 32 15 174 100 Pharmaceutical Dr. Saranjit Singh, ssingh@niper.ac 4 Professor, Deptt of 2214682-87 Sciences & .in NIPER. Pharmacy, Ext 2031 Allied Mohali R.K. 9988186326 39 17 62 Business & rakeshusol@gm 5 Dr. Gupta, -Professor, Service. ail.com Management, PU, Management Chandigarh Applied Dr. A.P. Singh, Dean deanric@ptu.ac.i 94780-98005 31 11 23 6 ---(RIC), IKGPTU Sciences n Dr. Buta Singh, Dean 9501109002 7 130 23 56 127 Mechanical & butasidhu@yaho 7 (Academics) IKGPTU Allied o.com Engineering 8 Textile and Dr. S.K. Sinha. sinhask@nitj.ac.i 0181-2690320. 24 17 32 42 Professor Textile Fashion n 2690932 Deptt, NIT, Jalandhar Technology 183 720 Dr. R. C. guptarc53@redif 94174-91981 32 12 9 Life Science Gupta, Professor and Head, fmail.com Deptt of Botany, Punjabi University, Patiala 9872253455 21 2 10 24 4.5 Dua, duasandeep18@ 10 Planning & Sandeep Dr. Professor, Deptt of rediff.com Architecture Architecture GNDU, Amritsar 36 292 Civil & Siby john, johnsiby1@gmail 9463495575 22 11 11 Dr. Deptt of Professor, Environmental .com Civil Engg., PEC, Engineering Chandigarh pratibhanagpal 9814121238 35 10 8 Languages Dr. Pratibha Nagpal ----12 Deptt of Professor, @hotmail.com English and Cultural PU. Studies, Chandigarh drmanjitsinghpbi 9876170620, 35 20 14 100 Applied Art & Manjit, Singh, Dr. 13 Deptt of Social Science Professor, @gmail.com Punjabi Arts., University, Patiala 9815608859 27 8.5 54 47.76 Food Science & Saxena, dcsaxena@yaho 14 Dr. D.C. Deptt of Professor, Technology o.com Food Engineering, SLIET, Longowal rattan67in@yaho 9878555311 20 7 35 15 Law Rattan Singh, -Dr. Professor, Deptt of Law, GNDU, Amritsar o.com

Minutes of 46th Academic Council Meeting (20th October, 2015)

The term of the Dean (Faculties) will be two years

46.11. Credit Based System

The item was discussed in detail and approved.

46.12 January Admissions – 2016

After a detailed deliberation the council approved the fresh guidelines for January admission as proposed with the amendment that the colleges willing for January admissions must have atleast 10 admissions in a course so that it will be viable to run as a separate batch.

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These guidelines shall be applicable from 2016 batch onward.



46.13 Any other item with the permission of the Chair.

Supplementary agenda

S-46.01 Declaration of pending results of the January batch admission.

The item discussed in detail and it was approved that the pending results of students admitted during January session should be declared whenever students complete their academic requirements as a onetime measure. The University will declare the pending results after necessary undertaking from college / institute indicating that the student has fulfilled the academic requirements of the course.

S-46.02 To approve the minutes of the various Board of Studies

The item was discussed in detail and following are the recommendations:

- 1. **BOS (Textile Engineering):** after deliberation, the council approved signing of Research MoU with reputed institutes having faculty of Textile Engineering. Even as per the recent UGC guidelines the faculty from other institute may not be considered as co-supervisor.
- 2. **BOS (Pharmacy)**: The item was again referred to the concerned BOS to give clear recommendations after studying the system prevailing in other Universities. The recommendations should be given before the next academic council meeting.

Further the council approved the syllabus and minutes of meetings of various Board of Studies as proposed.

S-46.03 Award of Ph.D

One more candidate has recommended for award of Ph.D. Degree and name already included at item No. 46.03 at Sr. No. 24.

Meeting ended with a vote of thanks to the Chair.

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



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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.

- **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 interdepartmental 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.

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	Р	Marginal/Pass	4
8	F	Failed	0
9	Ab	Absent	0
10	Ι	Incomplete	-
11.	E	Detained	0
12	S/US	Satisfactory/Unsatisfactory	-

Table 1: Structure of grading academic performance

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".

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.

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.

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

*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.

Examination (Theory)	Syllabus to be	Time allotted	Waightaga	Domonto
Examination (Theory)	covered in the	for the	(Morks)	Remarks
	examination	evamination	(IVIAI KS)	
Midterm Sessional Test (MST) – I	Unto 33%	1.5 Hour	24%	Best two tests shall be
Midterm Sessional Test(MST) – II	33 % to 66 %	1.5 Hour	2470	considered and in any
Midterm Sessional Test (MST) – III	66% to 100%	1.5 Hour	-	case no special test will be
	00701010070	1.5 11001		conducted for the students
Quizzes/Group discussion / Class	As per discretion	As per	16%	who remained absent in
discussion/ attendance/ seminars /	of teacher	discretion of		any of the MST MST-I
projects/ case studies assignments		teacher		II III and quizzes etc.
etc.				constitute internal
		,		evaluation
End Semester Examination	100% Syllabus	3 Hours	60%	Checking of answer sheets
		U TTOUTO	0070	will be done at the
				University level. This
				component is called
				external evaluation.
Total			100%	Marks may be rounded off
	S			to nearest integer
Practical				
Daily evaluation of practical			60%	Internal evaluation
records/Assignment/Viva Voce/				
Attendance etc.				
Final Practical Performance +	100% Syllabus	3 Hours	40%	External evaluation
Viva Voce				
Total			100%	Marks may be rounded off
				to nearest integer

Table 3: Continuous Assessment Criterion

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.



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

Table 4: Absolute grading criterion

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.

Sr. No.	Marks	Grade	Grade points
1	$\geq \mu + 1.80\sigma$	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 $\leq \mu + 0.35\sigma$	В	6
6	$\geq \mu$ -0.35 σ and $< \mu$	С	5
7	\geq 40% Marks and < μ -0.35 σ	Р	4
8	< 40% (Marks)	F	0

Table 5: Relative grading criterion

Note:-

1. 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.

- 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 to attain the 6.0 CGPA (or 60% marks) if CGPA is less than 6.0 at the end of 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.

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.

- **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

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

Where,

 w_i is credit of ith course, g_i is grade point of ith course and m is number of courses in one semester.

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

ps is the prescribed percentage weightage to Internal Evaluation
pese is the prescribed percentage weightage to End Semester Evaluation
gis is grade point obtained in Internal Evaluation
gese 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 $(5+4\times4+3)$ -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.

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.

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

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

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.

Annexure-I

Work-out example for different values of ' μ ' & ' σ ' with corresponding Grades

μ	σ	≥ μ+1.80σ	≥ μ+1.35σ and <μ+1.80σ	≥ μ+0.85σ and < μ+1.35σ	$\geq \mu + 0.35\sigma$ and $< \mu + 0.85\sigma$	$\geq \mu$ and $< \mu + 0.35\sigma$	≥ μ-0.35σ and < μ	\geq 40% Marks and $\leq \mu$ -0.35 σ	< 40% (Marks)
50	10	≥68	≥ 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	≥86	≥77 and <86	≥67 and <77	≥ 57 and <67	50≥and <57	≥43 and <50	≥40 and <43	< 40
55	10	≥73	≥68.5 and <73	≥63.5 and <68.5	≥58.5and <63.5	55≥and <58.5	≥51.5 and <55	≥40 and <51.5	< 40
55	20	≥91	≥82 and <91	≥72 and <82	≥ 62 and <72	55≥and <62	≥48 and <55	≥40 and <48	< 40
60	10	≥78	≥73.5 and <78	≥68.5 and <73.5	≥ 63.5and <68.5	60≥and <63.5	≥56.5 and <60	>40 and <56.5	< 40
60	20	≥96	≥87 and <96	≥77 and <87	\geq 67 and <77	60≥and <67	>53 and <60	>40 and <53	< 40
(Grade	0	A+	A	B+	В	C	P P	F

Annexure-II

Roll	Marks obtained(X ₁)	(X1-µ)	$(X_{1}-\mu)^{2}$
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
IKGPTU-31	27	2.82	7.98
IKGPTU-32	40	15.82	250.41
IKGPTU-33	12	-12.18	148.25
IKGPTU-34	7	-17.18	295.00

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

(PPS-)

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
IKGPTU-53	32	7.82	61.22
IKGPTU-54	27	2.82	7.98
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
IKGPTU-67	25	0.82	0.68
IKGPTU-68	26	1.82	3.33
IKGPTU-69	25	0.82	0.68
IKGPTU-70	30	5.82	33.92
IKGPTU-71	24	-0.18	0.03
IKGPTU-72	26	1.82	3.33

OPSj

IKGPTU-73	34	9.82	96.52		
IKGPTU-74	24	-0.18	0.03		
TOTAL	1789		5606.72		
No. of Studer	nts (N)	74			
Mean (µ) =Total Marks obtained					
/No. of Studer	/No. of Students		24.18		
STANDARD	DEVIATION (o)				
1 1		√5606.72/73			
$\left \frac{1}{N-1}\right (X_i - \mu)^2$					
$\sqrt{1-\frac{1}{i=1}}$		=8.76			

OPSZ

I.K.GUJRAL PUNJAB TECHNICAL UNIVERSITY

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

Ref. No./IKGPTU/Reg/ 1167

Dated: 03-12-2015

212/45

ਰਜਿਸਟਰਾਰ

12.2 Dfst

ਡਾਇਰੈਕਟਰ/ਪਿੰਸੀਪਲ ਸਮੁਹ ਐਫੀਲੇਡਿਟ ਸੰਸਥਾਵਾਂ/ਕਾਲਜ ਆਈ.ਕੇ.ਗੁਜਰਾਲ ਪੰਜਾਬ ਟੈਕਨੀਕਲ ਯੂਨੀਵਰਸਿਟੀ।

ਵਿਸਾ :-

Regarding Credit Based System (CBS).

ਉਪਰੋਕਤ ਵਿਸ਼ੇ ਦੇ ਸਬੰਧ ਵਿਚ ਆਪ-਼ਜੀ ਦੇ ਧਿਆਨ ਵਿਚ ਲਿਆਂਦਾ ਜਾਂਦਾ ਹੈ ਕਿ ਆਈ.ਕੇ.ਗੁਜਰਾਲ ਪੰਜਾਬ ਟੈਕਨੀਕਲ ਯੂਨੀਵਰਸਿਟੀ ਵੱਲੋਂ ਦਾਖਲਾ ਸਾਲ 2015-2016 ਤੋਂ ਕਰੇਡਿਟ ਬੇਸਿਡ ਸਿਸਟਮ ਸ਼ੁਰੂ ਕੀਤਾ ਜਾ ਰਿਹਾ ਹੈ। ਇਸ ਸਬੰਧੀ ਲੋੜੀਂਦੀਆਂ ਗਾਈਡਲਾਈਨ, ਰੂਲ ਰੈਗੂਲੇਸ਼ਨਜ਼ ਅਤੇ ਸਾਫਟਵੇਅਰ ਯੂਨੀਵਰਸਿਟੀ ਦੀ ਵੈਬਸ਼ਾਈਟ ਉਪਰ ਅਪਲੋਡ ਕਰ ਦਿੱਤਾ ਗਿਆ ਹੈ, ਜਿਸ ਦਾ ਲਿੰਕ ਨਿਮਨ ਪ੍ਰਕਾਰ ਹੈ। ਆਪ ਜੀ ਨੂੰ ਬੇਨਤੀ ਕੀਤੀ ਜਾਂਦੀ ਹੈ ਕਿ ਦਾਖਲਾ ਸਾਲ 2015-2016 (ਪਹਿਲਾ ਸਮੈਸਟਰ) ਦੇ ਵਿਦਿਆਰਥੀਆਂ ਦੀ ਪ੍ਰੀਖਿਆਵਾਂ ਸਬੰਧੀ ਈਵੈਲੂਏਸ਼ਨ ਕਰਨ ਸਬੰਧੀ ਲੋੜੀਂਦੀਆਂ ਹਦਾਇਤਾਂ ਅਤੇ ਸ਼ਾਫਟਵੇਅਰ ਯੂਨੀਵਰਸਿਟੀ ਦੀ ਵੈਬਸਾਈਟ ਦੇ ਨਿਮਨ ਲਿੰਕ ਤੋਂ ਡਾਊਨਲੋਡ ਕਰ ਲਿਆ ਜਾਵੇ ਜੀ।

http://www.otu.ac.in/credit%20based%20system/cbs.pdf

ਇਸ ਦਾ ਇੱਕ ਉਤਾਰਾ

- ਡੀਨ (ਅਕਾਦਮਿਕ) ਜੀ ਨੂੰ ਸੂਚਨਾ ਹਿੱਤ ਭੇਜਿਆ ਜਾਂਦਾ ਹੈ ਜੀ।
 ਕੰਟਰੋਲਰ ਪ੍ਰੀਖਿਆਵਾਂ ਜੀ ਨੂੰ ਸੂਚਨਾ ਅਤੇ ਕਾਲਜਾਂ ਦੀ ਲਾਗਿਨ ਆਈ.ਡੀ. ਵਿਚ ਭੇਜਣ ਹਿੱਤ।
 ਡਿਪਟੀ ਰਜਿਸਟਰਾਰ (ਕੰਪਿਊਟਰ) ਨੂੰ ਯੂਨੀਵਰਸਿਟੀ ਦੀ ਵੈਬਸਾਈਟ ਦੇ ਨੋਟਿਸ ਬੋਰਡ ਉਪਰ ਅਪਲੋਡ ਹਿੱਤ।

I.K. GUJRAL PUNJAB TECHNICAL UNIVERSITY

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Ref.No./IKGPTU/Reg/11677

Dated: 03.12.2015

Directors / Principals Affiliated Institutions / Colleges I.K. Gujral Punjab Technical University

Subject: Regarding Credit Based System (CBS)

With reference to the subject cited above, it is brought to your notice that I. K. Gujral Punjab Technical University is introducing Credit Based System from the academic year 2015-16. The guidelines, rules & regulations and software related to this have been uploaded on the University website. You are requested to download examination related evaluation guidelines and software for the students of academic year 2015-16 (first semester) from the website of the University. The link for the same is given below:

http://www.ptu.ac.in/credit%20based%20system/cbs.pdf

Sd/-Registrar

Copy to:

- 1) Dean (Academics) for information.
- 2) Controller of Examination for information and sending to the login ids of Colleges / Institutions
- 3) Deputy Registrar (Computer) to upload on the noticeboard of the University Website