

UHV-II Implemented

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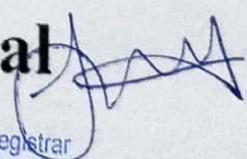
# Scheme & Syllabus of Bachelor of Technology Computer Science & Engineering

## Batch 2018 onwards (3<sup>rd</sup> -8<sup>th</sup> Semester)- Affiliated colleges



By

Department of Academics  
**IK Gujral Punjab Technical  
University**

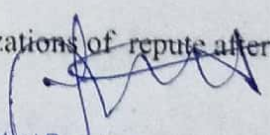
  
Assistant Registrar  
International Resource Centre for Universal  
Human Values & Ethics (IRC-UHVE)  
I.K. Gujral Punjab Technical University  
Kapurthala (Punjab)

**IK Gujral Punjab Technical University,  
Kapurthala**

**Fourth Semester**

Course Code	Type of Course	Course Title	Hours per Week			Marks Distribution		Total Marks	Credits
			L	T	P	Internal	External		
BTCS 401-18	Professional Core Courses	Discrete Mathematics	3	1	0	40	60	100	4
BTES 401-18	Engineering Science Course	Computer Organization & Architecture	3	0	0	40	60	100	3
BTCS 402-18	Professional Core Courses	Operating Systems	3	0	0	40	60	100	3
BTCS 403-18	Professional Core Courses	Design & Analysis of Algorithms	3	0	0	40	60	100	3
HSMC 122-18	Humanities & Social Sciences including Management Courses	Universal Human Values 2	2	1	0	40	60	100	3
EVS101- 18	Mandatory Courses	Environmental Sciences	3	-	-	100	-	100	S/US
BTES 402-18	Engineering Science Course	Computer Organization & Architecture Lab	0	0	2	30	20	50	1
BTCS 404-18	Professional Core Courses	Operating Systems Lab	0	0	4	30	20	50	2
BTCS 405-18	Professional Core Courses	Design & Analysis of Algorithms Lab	0	0	4	30	20	50	2
<b>Total</b>			<b>15</b>	<b>2</b>	<b>10</b>	<b>390</b>	<b>360</b>	<b>750</b>	<b>24</b>

Students will take up summer internship of 4-6 weeks at industry or organizations of repute after 4<sup>th</sup> sem, that will be accredited in 5<sup>th</sup> semester.

  
 Assistant Registrar  
 International Resource Centre for Universal  
 Human Values & Ethics (IRC-UHVE)  
 I.K. Gujral Punjab Technical University  
 Kapurthala (Punjab)

UHV-II Implemented

# Scheme & Syllabus of

Bachelor of Technology

Information Technology

Batch 2018 onwards

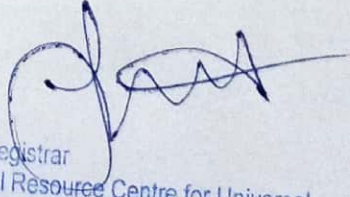
(3<sup>rd</sup>-8<sup>th</sup>Sem.)-Affiliated Colleges



Department of Academics

**IK Gujral Punjab Technical**

**University, Kapurthala**

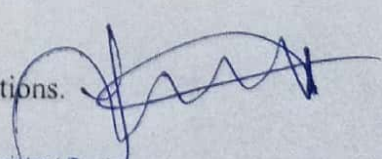
  
Assistant Registrar  
International Resource Centre for Universal  
Human Values & Ethics (IRC-UHVE)  
I.K. Gujral Punjab Technical University  
Kapurthala (Punjab)

IK Gujral Punjab Technical University, Kapurthala  
B. Tech, Information Technology

5th Semester

Course Code	Type of Course	Course Title	Hours per Week			Marks Distribution		Total Marks	Credits
			L	T	P	Internal	External		
BTIT 501-18	Professional Core Courses	Formal Language & Automata Theory	3	0	0	40	60	100	3
BTIT 502-18	Professional Core Courses	Database Management Systems	3	0	0	40	60	100	3
BTIT 503-18	Professional Core Courses	Programming in Java	3	0	0	40	60	100	3
BTIT 504-18	Professional Core Courses	Software Engineering	3	0	0	40	60	100	3
MC12 2-18	Humanities & Social Sciences including Management Courses	Universal Human values-2	3	0	0	40	60	100	3
BTIT XXX-18	Professional Elective	Elective-I	3	0	0	40	60	100	3
MC	Mandatory Courses	Constitution of India/ Essence of Indian Traditional Knowledge	2	-	-	100	-	100	S/US
BTIT 505-18	Professional Core Courses	Database Management Systems Lab	0	0	4	30	20	50	2
BTIT 506-18	Professional Core Courses	Programming in Java Lab	0	0	2	30	20	50	1
BTIT 507-18	Professional Core Courses	Programming in Software Engg.	0	0	2	30	20	50	1
BTIT XXX-18	Professional Elective	Elective-I lab	0	0	2	30	20	50	1
	Professional Training	Industrial *Training	-	-	-	60	40	100	S/US
<b>Total</b>			<b>20</b>	<b>0</b>	<b>10</b>	<b>360</b>	<b>440</b>	<b>800</b>	<b>23</b>

\* 4-6 weeks industrial training undertaken after 4<sup>th</sup> semester in summer vacations.

  
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 Kapurthala (Punjab)

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# IKG Punjab Technical University

Syllabus (3<sup>rd</sup>-8<sup>th</sup> Semester)

for

Undergraduate Degree Programme

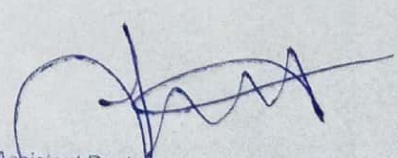


Bachelor of Technology

## ELECTRONICS AND COMMUNICATION ENGINEERING

Scheme & Syllabus

2018 & onwards

  
Assistant Registrar  
International Resource Centre for Universal  
Human Values & Ethics (IRC-UHVE)  
I.K. Gujral Punjab Technical University  
Kapurthala (Punjab)

Semester IV [Second year]										
Branch/Course: B.Tech. Electronics and Communication Engineering										
Sr. No.	Course code	Course Title	L	T	P	Hrs	Internal Marks	External Marks	Total Marks	Credits
1	BTEC-401-18	Analog Circuits	3	1	0	4	40	60	100	4
2	BTEC-402-18	Microprocessors and Microcontrollers	3	1	0	4	40	60	100	4
3	BTCS-301-18	Data Structures & Algorithms	3	0	0	3	40	60	100	3
4	BTEC-403-18	Signals and Systems	3	1	0	4	40	60	100	4
5	HSMC122-18	Universal Human Values - 2: Understanding Harmony	3	0	0	3	40	60	100	3
6	EVS-101-18	Mandatory Course- Environmental Sciences	3	0	0	3	100	0	100	Non-credit
7	BTEC-411-18	Analog Circuits Laboratory	0	0	2	2	30	20	50	1
8	BTEC-412-18	Microprocessors and Microcontrollers Laboratory	0	0	2	2	30	20	50	1
9	BMPD-341-18	Mentoring and Professional Development	0	0	2	2	Satisfactory/Un-satisfactory			Non-credit
<b>Total</b>			<b>18</b>	<b>2</b>	<b>6</b>	<b>26</b>	<b>360</b>	<b>340</b>	<b>700</b>	<b>20</b>

Semester V [Third year]										
Branch/Course: B.Tech. Electronics and Communication Engineering										
Sr. No.	Course code	Course Title	L	T	P	Hrs.	Internal Marks	External Marks	Total	Credit
1	BTEC-501-18	Analog and Digital Communication	3	1	0	4	40	60	100	4
2	BTEC-502-18	Digital Signal Processing	3	1	0	4	40	60	100	4
3	BTEC-503-18	Linear Integrated Circuits	3	1	0	4	40	60	100	4
4	BTEC-504-18	Control Systems	3	1	0	4	40	60	100	4
5	BTEC-901X-18	Professional Elective-I	3	0	0	3	40	60	100	3
6	BTEC-505-18	Project Management	3	0	0	3	40	60	100	3
7	BTEC-511-18	Analog and Digital Communication Laboratory	0	0	2	2	30	20	50	1
8	BTEC-512-18	Digital Signal Processing Laboratory	0	0	2	2	30	20	50	1
9	BTEC-513-18	Linear Integrated Circuits Laboratory	0	0	2	2	30	20	50	1
10	BTEC-521-18	4-Weeks Industrial Training	0	0	6	6	60	40	100	0
11	BTEC-10X-18	Professional Elective-I Lab (Optional)**	0	0	2	2	Satisfactory/Un-satisfactory			Non-credit

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Kapurthala (Punjab)

UHV - II Implemented

# IKG Punjab Technical University

Syllabus (3<sup>rd</sup>-8<sup>th</sup> Semester)

for

Undergraduate Degree Programme

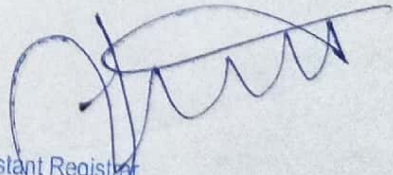


Bachelor of Technology

## **ELECTRONICS AND TELECOMMUNICATION ENGINEERING (ETE)**

Scheme & Syllabus

2018 & onwards

  
Assistant Registrar  
International Resource Centre for Universal  
Human Values & Ethics (IRC-UHVE)  
I.K. Gujral Punjab Technical University  
Kapurthala (Punjab)

Semester IV [Second year]										
Branch/Course: Electronics and Telecommunication Engineering										
Sr. No.	Course code	Course Title	L	T	P	Hrs	Internal Marks	External Marks	Total Marks	Credits
1	BTEC-401-18	Analog Circuits	3	1	0	4	40	60	100	4
2	BTEC-402-18	Microprocessors and Microcontrollers	3	0	0	3	40	60	100	3
3	BTCS-301-18	Data Structures & Algorithms	3	0	0	3	40	60	100	3
4	BTEC-403-18	Signals and Systems	3	1	0	4	40	60	100	4
5	HSMC122-18	Universal Human Values - 2: Understanding Harmony	3	0	0	3	40	60	100	3
6	EVS-201-18	Mandatory Course- Environmental Sciences	3	0	0	3	40	60	100	Non-credit
7	BTEC-411-18	Analog Circuits Laboratory	0	0	2	2	30	20	50	1
8	BTEC-412-18	Microprocessors and Microcontrollers Laboratory	0	0	2	2	30	20	50	1
9	BMPD-341-18	Mentoring and Professional Development	0	0	2	Satisfactory/Un-satisfactory				Non-credit
<b>Total</b>			<b>18</b>	<b>2</b>	<b>6</b>	<b>24</b>	<b>300</b>	<b>400</b>	<b>700</b>	<b>19</b>

Semester V [Third year]										
Branch/Course: Electronics and Telecommunication Engineering										
Sr. No.	Course code	Course Title	L	T	P	Hrs.	Internal Marks	External Marks	Total	Credits
1	BTEC-501-18	Analog and Digital Communication	3	0	0	3	40	60	100	3
2	BTCS-602-18	Computer Networks	3	0	0	3	40	60	100	3
3	BTEC-503-18	Linear Integrated Circuits	3	0	0	3	40	60	100	3
4	BTEC-504-18	Control Systems	3	1	0	4	40	60	100	4
5	BTEC-901X-18	Program Elective-I	3	0	0	3	40	60	100	3
6	BTEC-511-18	Analog and Digital Communication Laboratory	0	0	2	2	30	20	50	1
7	BTEC-512-18	Digital Signal Processing Laboratory	0	0	2	2	30	20	50	1
8	BTEC-513-18	Linear Integrated Circuits Laboratory	0	0	2	2	30	20	50	1
9	BTET-521-18	4-Weeks Industrial Training-I	0	0	6	6	60	40	100	3
10	BMPD-351-18	Mentoring and Professional Development	0	0	2	Satisfactory/Un-satisfactory				Non-credit

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I.K. Gujral Punjab Technical University  
Kapurthala (Punjab)

UHV-II Implemente



# **IKG Punjab Technical University**

**Syllabus (3<sup>rd</sup>-8<sup>th</sup> Semester)**

**for**

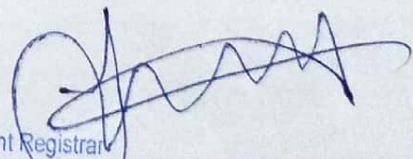
**Undergraduate Degree Programme**

**Bachelor of Technology**

**ELECTRONICS AND  
INSTRUMENTATION ENGINEERING**

**Scheme & Syllabus**

**2018 & onwards**

  
Assistant Registrar  
International Resource Centre for Universal  
Human Values & Ethics (IRC-UHVE)  
I.K. Gujral Punjab Technical University  
Kapurthala (Punjab)

Semester IV [Second year]										
Branch/Course: Electronics and Instrumentation Engineering										
Sr. No.	Course code	Course Title	L	T	P	Hrs	Internal Marks	External Marks	Total Marks	Credits
1	BTEI-401-18	Transducers and Signal Conditioning	3	1	0	4	40	60	100	4
2	BTEC-401-18	Analog Circuits	3	1	0	4	40	60	100	4
3	BTEC-302-18	Digital System Design	3	0	0	3	40	60	100	3
4	BTEC-403-18	Signals and Systems	3	1	0	4	40	60	100	4
5	HSMC122-18	Universal Human Values - 2: Understanding Harmony	3	0	0	3	40	60	100	3
6	EVS-201-18	Mandatory Course- Environmental Sciences	3	0	0	3	100	00	100	Non-credit
7	BTEI-411-18	Transducers and Signal Conditioning Laboratory	0	0	2	2	30	20	50	1
8	BTEC-411-18	Analog Circuits Laboratory	0	0	2	2	30	20	50	1
9	BTEC-312-18	Digital System Design Laboratory	0	0	2	2	30	20	50	1
10	BMPD-341-18	Mentoring and Professional Development	0	0	2	Satisfactory/Un-satisfactory			Non-credit	
<b>Total</b>			<b>17</b>	<b>1</b>	<b>8</b>	<b>25</b>	<b>390</b>	<b>360</b>	<b>750</b>	<b>21</b>

Semester V [Third year]										
Branch/Course: Electronics and Instrumentation Engineering										
Sr. No.	Course code	Course Title	L	T	P	Hrs.	Internal Marks	External Marks	Total	Credits
1	BTEI-501-18	Biomedical Instrumentation	3	0	0	3	40	60	100	3
2	BTEC-502-18	Digital Control Systems	3	1	0	4	40	60	100	4
3	BTEC-503-18	Linear Integrated Circuits	3	0	0	3	40	60	100	3
4	BTEC-402-18	Microprocessors and Microcontrollers	3	0	0	3	40	60	100	3
5	BTEI-906X-18	Professional Elective-1	3	0	0	3	40	60	100	3
6	BTOEI-XX1-18	Open Elective-1	3	0	0	3	40	60	100	3
7	BTEC-412-18	Microprocessors and Microcontrollers Laboratory	0	0	2	2	30	20	50	1
8	BTEC-513-18	Linear Integrated Circuits Laboratory	0	0	2	2	30	20	50	1
9	BTEI-521-18	4-Week Industrial Training -I	0	0	6	6	60	40	100	3
10	BMPD-351-18	Mentoring and Professional Development	0	0	2	Satisfactory/Un-satisfactory			Non-credit	

Assistant Registrar  
International Resource Centre for Universal  
Human Values & Ethics (IRC-UHVE)  
I.K. Gujral Punjab Technical University  
Kapurthala (Punjab)

UHV-II

Implemented

**Scheme & Syllabus of**  
**Bachelor of Technology**  
**Computer Science (IoT&Cyber**  
**Security with Block Chain Technology)**

**Batch 2020 onwards**  
**(3<sup>rd</sup> -8<sup>th</sup> Semester)**



By

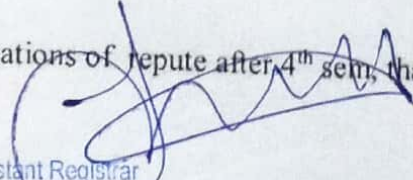
Department of Academics  
**IK Gujral Punjab Technical**  
**University**

  
Assistant Registrar  
International Resource Centre for Universal  
Human Values & Ethics (IRC-UHVE)  
I.K. Gujral Punjab Technical University  
Kapurthala (Punjab)

Fourth Semester

Course Code	Type of Course	Course Title	Hours per Week			Marks Distribution		Total Marks	Credits
			L	T	P	Internal	External		
BTCS 401-18	Professional Core Courses	Discrete Mathematics	3	1	0	40	60	100	4
BTES 401-18	Engineering Science Course	Computer Organization & Architecture	3	0	0	40	60	100	3
BTCS 402-18	Professional Core Courses	Operating Systems	3	0	0	40	60	100	3
BTCS 403-18	Professional Core Courses	Design & Analysis of Algorithms	3	0	0	40	60	100	3
HSMC 122-18	Humanities & Social Sciences including Management Courses	Universal Human Values 2	2	1	0	40	60	100	3
EVS101- 18	Mandatory Courses	Environmental Sciences	3	-	-	100	-	100	S/US
BTES 402-18	Engineering Science Course	Computer Organization & Architecture Lab	0	0	2	30	20	50	1
BTCS 404-18	Professional Core Courses	Operating Systems Lab	0	0	4	30	20	50	2
BTCS 405-18	Professional Core Courses	Design & Analysis of Algorithms Lab	0	0	4	30	20	50	2
<b>Total</b>			<b>15</b>	<b>2</b>	<b>10</b>	<b>390</b>	<b>360</b>	<b>750</b>	<b>24</b>

Students will take up summer internship of 4-6 weeks at industry or organizations of repute after 4<sup>th</sup> sem, that will be accredited in 5<sup>th</sup> semester.

  
 Assistant Registrar  
 International Resource Centre for Universal  
 Human Values & Ethics (IRC-UHVE)  
 I.K. Gujral Punjab Technical University  
 Kapurthala (Punjab)


UHV-II Implemented

**Scheme & Syllabus of**  
Bachelor of Technology  
**Computer Science Engg.**  
(Artificial Intelligence & Machine  
Learning)

**Batch 2020 onwards**  
**(3<sup>rd</sup> -8<sup>th</sup> Semester)**



By

  
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Human Values & Ethics (IRC-UHVE)  
I.K. Gujral Punjab Technical University  
Kapurthala (Punjab)

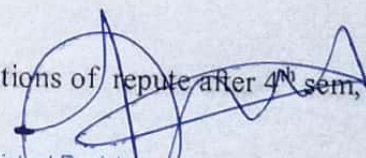
Department of Academics  
**IK Gujral Punjab Technical**  
**University**

**IK Gujral Punjab Technical University, Kapurthala**  
**B. Tech,**

**Fourth Semester**

Course Code	Type of Course	Course Title	Hours per Week			Marks Distribution		Total Marks	Credits
			L	T	P	Internal	External		
BTCS 401-18	Professional Core Courses	Discrete Mathematics	3	1	0	40	60	100	4
BTES 401-18	Engineering Science Course	Computer Organization & Architecture	3	0	0	40	60	100	3
BTCS 402-18	Professional Core Courses	Operating Systems	3	0	0	40	60	100	3
BTCS 403-18	Professional Core Courses	Design & Analysis of Algorithms	3	0	0	40	60	100	3
HSMC 122-18	Humanities & Social Sciences including Management Courses	Universal Human Values 2	2	1	0	40	60	100	3
EVS101- 18	Mandatory Courses	Environmental Sciences	3	-	-	100	-	100	S/US
BTES 402-18	Engineering Science Course	Computer Organization & Architecture Lab	0	0	2	30	20	50	1
BTCS 404-18	Professional Core Courses	Operating Systems Lab	0	0	4	30	20	50	2
BTCS 405-18	Professional Core Courses	Design & Analysis of Algorithms Lab	0	0	4	30	20	50	2
<b>Total</b>			<b>15</b>	<b>2</b>	<b>10</b>	<b>390</b>	<b>360</b>	<b>750</b>	<b>24</b>

Students will take up summer internship of 4-6 weeks at industry or organizations of repute after 4<sup>th</sup> sem, that will be accredited in 5<sup>th</sup> semester.

  
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 Human Values & Ethics (IRC-UHVE)  
 I.K. Gujral Punjab Technical University  
 Kapurthala (Punjab)

UHV-II Implemented

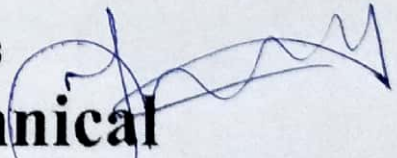
**Scheme & Syllabus of**  
Bachelor of Technology  
**Computer Science Engg. ( Data  
Science)**

**Batch 2020 onwards**  
**(3<sup>rd</sup> -8<sup>th</sup> Semester)**



By

Department of Academics  
**IK Gujral Punjab Technical  
University**

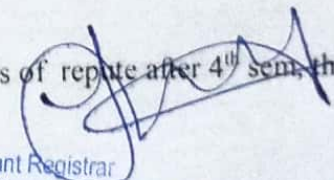
  
Assistant Registrar  
International Resource Centre for Universal  
Human Values & Ethics (IRC-UHVE)  
I.K. Gujral Punjab Technical University  
Kapurthala (Punjab)

IK Gujral Punjab Technical University, Kapurthala  
B. Tech,

Fourth Semester

Course Code	Type of Course	Course Title	Hours per Week			Marks Distribution		Total Marks	Credits
			L	T	P	Internal	External		
BTCS 401-18	Professional Core Courses	Discrete Mathematics	3	1	0	40	60	100	4
BTES 401-18	Engineering Science Course	Computer Organization & Architecture	3	0	0	40	60	100	3
BTCS 402-18	Professional Core Courses	Operating Systems	3	0	0	40	60	100	3
BTCS 403-18	Professional Core Courses	Design & Analysis of Algorithms	3	0	0	40	60	100	3
HSMC 122-18	Humanities & Social Sciences including Management Courses	Universal Human Values 2	2	1	0	40	60	100	3
EVS101- 18	Mandatory Courses	Environmental Sciences	3	-	-	100	-	100	S/US
BTES 402-18	Engineering Science Course	Computer Organization & Architecture Lab	0	0	2	30	20	50	1
BTCS 404-18	Professional Core Courses	Operating Systems Lab	0	0	4	30	20	50	2
BTCS 405-18	Professional Core Courses	Design & Analysis of Algorithms Lab	0	0	4	30	20	50	2
<b>Total</b>			<b>15</b>	<b>2</b>	<b>10</b>	<b>390</b>	<b>360</b>	<b>750</b>	<b>24</b>

Students will take up summer internship of 4-6 weeks at industry or organizations of repute after 4<sup>th</sup> sem, that will be accredited in 5<sup>th</sup> semester.

  
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 I.K. Gujral Punjab Technical University  
 Kapurthala (Punjab)

UHV - II  
Implemented

Third Semester

Contact Hrs. : 25

Course Code	Course Type	Course Title	Load Allocations			Marks Distribution		Total Marks	Credits
			L	T	P	Internal	External		
BTCHE301-18	Engineering Science Course	Engineering and Solid Mechanics	3	1	0	40	60	100	4
BTCHE302-18	Basic Science Course	Chemistry - II	3	1	0	40	60	100	4
BTCHE303-18	Professional Core Courses	Transport Phenomena	3	1	0	40	60	100	4
BTCHE304-18	Basic Science Course	Biology	3	1	0	40	60	100	4
BTCHE305-18	Professional Core Courses	Thermodynamics - II	3	1	0	40	60	100	4
BTCHE306-18	Engineering courses Science	Engineering Workshop*	1	0	4	30	20	50	3
BMPD301-18		Mentoring and Professional Development	0	0	2	Satisfactory / Un-Satisfactory			Non-Credit
<b>TOTAL</b>									<b>23</b>

\*No theory exam to be conducted. Only practical exam will be conducted.

Fourth Semester

Contact Hrs. : 23

Course Code	Course Type	Course Title	Load Allocations			Marks Distribution		Total Marks	Credits
			L	T	P	Internal	External		
BTCHE401-18	Professional Core Courses	Heat Transfer	3	1	0	40	60	100	4
BTCHE402-18	Professional Core Courses	Mass Transfer-I	3	1	0	40	60	100	4
BTCHE403-18	Professional Core Courses	Fluid Mechanics	3	1	0	40	60	100	4
BTCHE404-18	Engineering Core Courses	Materials Science	3	0	0	40	60	100	3
BTXXXXXX-18	Humanities And Social Sciences Including Management Courses	HASS- II (Foundation course in Humanities: Development of Societies/Philosophy)	3	0	0	40	60	100	3
TCHE405-18	Professional Core Courses	Numerical Methods in Chemical Engineering	2	0	0	40	60	100	2
EVS101-18	Mandatory non-credit course	Environmental sciences	2	0	0	40	60	100	0
BTCHE406-18	Professional Core Courses	Numerical Methods in Chemical Engineering	0	0	2	30	20	50	1
BMPD401-18		Mentoring and Professional Development	0	0	2	Satisfactory / Un-Satisfactory			Non-Credit
<b>TOTAL</b>									<b>21</b>

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Fifth Semester

Contact Hrs. : 25

Course Code	Course Type	Course Title	Load Allocations			Marks Distribution		Total Marks	Credits
			L	T	P	Internal	External		
BTCHE501-18	Professional Core Courses	Chemical Reaction Engineering- I	3	1	0	40	60	100	4
BTCHE502-18	Professional Core Courses	Mass Transfer- II	3	0	0	40	60	100	3
BTCHEXXX-18	Professional Elective Courses	Core Elective- I	3	0	0	40	60	100	3
	Open Elective Courses	Open Elective- I	3	0	0	40	60	100	3
BTXXXXXX-18	Humanities And Social Sciences Including Management Courses	HASS- III (Universal Human Values-II: Self, Society and Nature)	3	0	0	40	60	100	3
BTCHE503-18	Professional Core Courses	Chemical Engineering Lab-I	0	0	4	30	20	50	2
BTCHE504-18	Professional Core Courses	Particle & Fluid Particle Processing	3	0	0	40	60	100	3
BTCHE505-18	Mandatory course	Slot for MC [Constitution of India]	2	-	-	40	60	100	0
BMPD501-18		Mentoring and Professional Development	0	0	2	Satisfactory / Un-Satisfactory			Non-Credit
<b>TOTAL</b>									<b>21</b>

Sixth Semester

Contact Hrs. :22

Course Code	Course Type	Course Title	Load Allocations			Marks Distribution		Total Marks	Credits
			L	T	P	Internal	External		
BTCHE601-18	Professional Core Courses	Chemical Reaction Engineering- II	3	0	0	40	60	100	3
BTCHE602-18	Professional Core Courses	Process Technology & Economics	3	0	0	40	60	100	3
BTCHEXXX-18	Professional Elective Courses	Core Elective- II	3	0	0	40	60	100	3
BTCHE603-18	Professional Core Courses	Process Control	3	0	0	40	60	100	3
BTXXXXXX-18	Humanities And Social Sciences Including Management Courses	HASS- IV (Humanities Elective)	3	0	0	40	60	100	3
BTCHE604-18	Professional Core Courses	Chemical Engineering Lab- II	0	0	4	30	20	50	2
	Open Elective Courses	Open Elective- II	3	0	0	40	60	100	3
BMPD601-18		Mentoring and Professional Development	0	0	2	Satisfactory / Un-Satisfactory			Non-Credit
<b>TOTAL</b>									<b>20</b>

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