(DEEMED TO BE UNIVERSITY)

STUDENT handbook 2022-2023

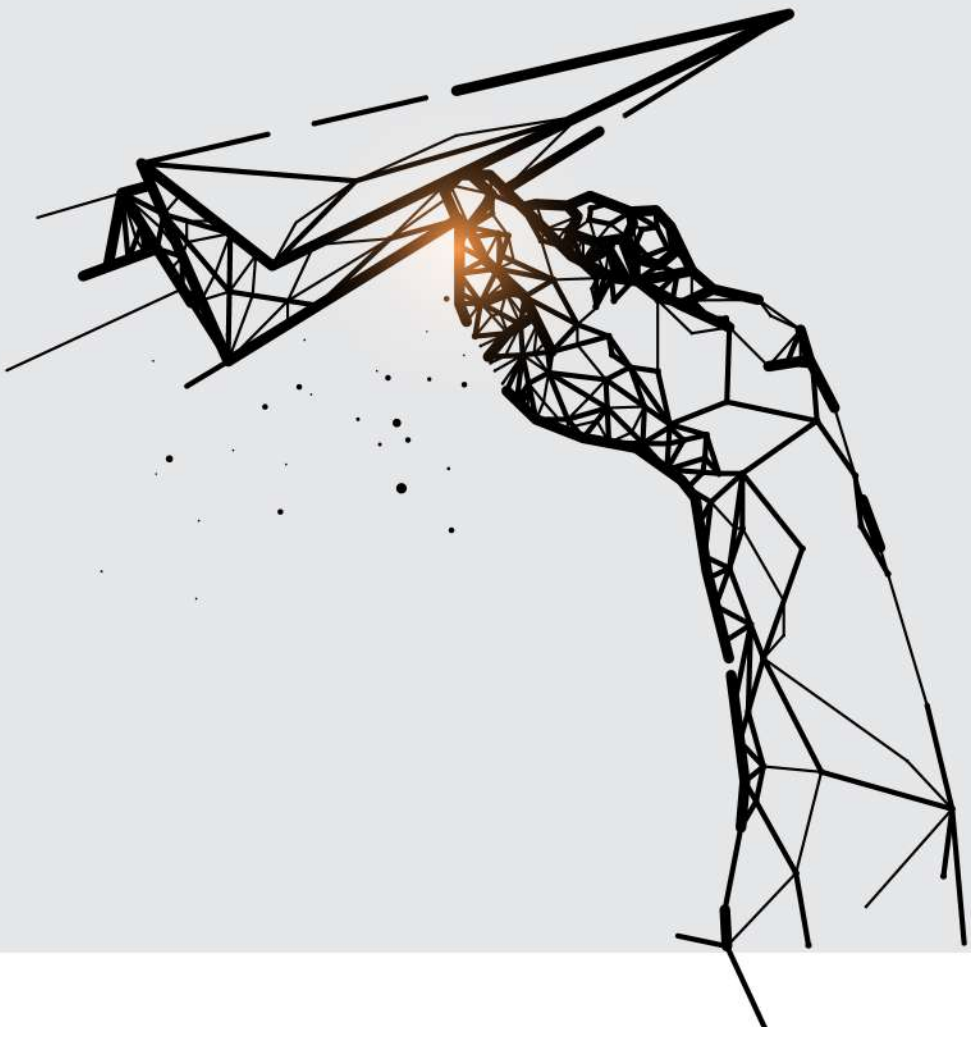
www.kluniversity.in

VISION

To be a globally renowned university.

MISSION

To impart quality higher education and to undertake research and extension with emphasis on application and innovation that cater to the emerging societal needs through all-round development of students of all sections enabling them to be globally competitive and socially responsible citizens with intrinsic values.



CATEGORY 1 UNIVERSITY
BY MHRD, Govt. of India

KL ACCREDITED BY **NAAC** WITH **A++**
GRADE

nirf 2022 NATIONAL INSTITUTIONAL RANKING FRAMEWORK

RANKED **27**
AMONG ALL UNIVERSITIES

42 YEARS OF **EDUCATIONAL**
LEADERSHIP

Koneru Satyanarayana,
Chancellor

Sri Koneru Satyanarayana, BE, FIE, FIETE, MIEEE graduated in Electronics and Communication Engineering in the year 1977. Along with Sri Koneru Lakshmaiah, he is the co-founder of the Institute which was established in the year 1980. He is an educationist of eminence and also an industrialist of great repute. He runs a number of industries in and around Vijayawada.

Prof. G P S Varma
Vice-Chancellor

Prof. G P S Varma, Vice-Chancellor, KLEF, is one of the most widely experienced leaders in Indian higher education, known for his commitment to expanding student opportunity, catalyzing academic innovation, and encouraging university's civic engagement and service to society. He adorned the position of Chairman, ISTE (Indian Society for Technical Education)- AP State, TSEMCET Test Committee Member-2021 nominated By Telangana State Govt, APEAMCET Admission Committee Member in 2016 by Andhra Pradesh State Council of Higher Education, Govt. of Andhra Pradesh. He has been a very farsighted Peer Team Visit Member for National Assessment and Accreditation Council (NAAC), Expert Committee Member for University Grants Commission (UGC) Autonomous Visits. He has been an Advisory Council Member for (CEGR) Centre for Education Growth, and Research India International Centre, New Delhi, and Board Member for Big-Data Analytics Forum.

Dr. Venkatram Nidumolu
Pro-Vice Chancellor

Dr. Venkatram Nidumolu, Pro-Vice Chancellor is High performing, strategic thinking professional with more than 15years of administration experience and 20 years of teaching experience in KLEFand 30 years overall experience in the higher education sector. He graduated in B.Tech (ECE) from Acharya Nagarjuna University, pursued M.S degree from BITS, PILANI in software Systems. He received Ph.D award from Acharya Nagarjuna University. He held the positions like HOD, Joint Register, Principal, and Dean-Academics before becoming Pro-Vice Chancellor. He was core member of all NBA, NAAC, & other accreditations since 2004 and he has good experience in handling of quality issues and assessment related practices.

Objectives

Focus	Objective
Academics	• To offer academic flexibility by means of Choice based credit systems and the like. • To identify and introduce new specializations and offer programs in emerging areas therein • To incorporate into the curriculum the Application orientation and use high standards of competence for academic delivery • To design and implement educational system adhering to outcome based International models. • To introduce and implement innovation in teaching and learning process to strengthen academic delivery • To offer academic programs at UG, PG, doctoral, Post-Doctoral which are industry focused, and incorporates Trans-discipline, inter-discipline aspects of the education system • To deliver higher education that includes technologies and meeting the global requirements
Research	• To promote inter-disciplinary studies and create needful facilities that enhance inter-disciplinary research and innovation • To create an ambience that is conducive for undertaking sponsored research, internal funded research and offering consultancy services to wide spectrum of originations • To establish centers of excellence in frontier areas of research, and design innovation centers with industry collaboration • To create environment to innovate and incubate the products and services that addresses the societal requirements • To integrate research into all academic programs • To maintain high standards in achieving research outcomes • To promote International conferences / Seminars / Workshops / in collaboration with professional bodies for creation of avenues for research exchange
Extramural and extension	• To generate means and avenues for carrying out extramural research for Industry and Academia • To organize extension activities covering literacy promotion, health awareness and improve the living standards of community • To make the research outcomes useful and applicable for the societal needs
Infrastructure	• To promote and maintain state of the art facilities for academic delivery,

	research and co & extra-curricular facilities and develop congenial and eco-friendly fully residential campus • To create and strengthen focused and modern infrastructure that address the national needs through generation of dedicated funds from Industry, Government and research organizations,
Equity / Access	• To provide and promote the opportunities to higher education to socially deprived communities and remove disparities by promoting women, differently abled and socially deprived • To provide equal access to meritorious both in terms of admissions and financial support
ICT	• To lay emphasis on effective usage of ICT, WEB –resources and train the faculty on the latest advancements thereof and develop effective e-content • To develop and maintain world class ICT infrastructure and lay emphasis on its effective usage, extend regular training to both faculty and students on its latest advancements there by ensure interactive academic delivery
Examinations and evaluations	• To introduce reforms in the examination and evaluation system that brings out knowledge application skills and competencies of the students and ensure transparency
Ecology and Environment	• To Build into curriculum, issues related to social awareness about ecology and environment towards achieving greener society
Linkages	• To promote collaborations with international and national organizations for advancements of academics, research, Technology transfer and Intellectual property rights. • To Indigenize the global technological solutions and develop the products, and services that transforms the standard of living of rural India • Design new products and services that address commercially attractive needs and opportunities while leveraging the available resources in the form of un-employed and under-employed Individuals
Employability	• To provide skills through curriculum and training that are essential in fostering entrepreneurial thoughts, employability prospects and at the same time provides necessary support for incubating the innovations and assisting them for prospective commercialization. • To provide necessary business infrastructure that allows attracting and sustaining the industry to commence their business establishments within the University Campus and aid in life long sustenance of employment. • To develop industrial cluster that helps the students to start their industry

	after incubating the products at the incubating centers which will create Jobs • To develop National depositories for meeting the goals of National skill development council • Train people to profile neighborhood and communities for the needs and commercial opportunities that will support financially sustainable new businesses
Governance	• To institute measures for transparent administration that aid in improving efficiency, accountability and reliance • To comply with regulations of all the statutory bodies. • To install professional managers who are global visionaries, thought leaders, and thinkers into the management of the University so as to contribute to the ideals of the University system
Quality	• To continuously upgrade the faculty in curriculum design, teaching pedagogy, usage of ICT and various processes pertaining to academics, research and University administration • To develop mechanism that attracts talented, qualified and experienced faculty from across the globe for pursuing their academic and research careers at the University. • To consider and implement norms, metrics, standards, procedures and benchmarks for assessing and improving the quality in every aspect of University system and achieve quality certifications by National and International bodies. • To establish Internal quality Assurance cell (IQAC) and install a quality systems that is integral part of all the University processes • To continuously upkeep overall quality of the University based on aspects of regular feedback from the stake holders • To improve the quality of faculty through faculty incentives, awards and recognitions
Value orientation	• To mold the students to possess professional ethics, moral values and intrapersonal skills that shape them into effective leaders and who are having the thoughts of equality and unanimity towards all walks and sects of life. • To inculcate the self-consistency, self-reliance and self-learning qualities for shaping the students to lead their life on their own. • To sharpen the critical thinking and reasoning skills by making students tackle problems and ideas that are yet to be tackled through application of their intellectual discovery. • Developing the students towards human intellectual achievement and make them rich in cultural experience

	• Students to be encouraged and provided with necessary support enabling them to choose and pursue careers of their choice & interest that make them professionally satisfied.
National development	• To expand the University in all its modes of delivery so as to contribute to the Nation's increase in Gross Enrolment Ratio • To align the academic programs and courses to match the requirements of the National goals • To develop technology that helps sustainable socio economic development

University Administration

Vice Chancellor - Dr G PardhaSaradhi Varma	vc@kluniversity.in
Pro Vice Chancellor- Dr N Venkatram	provc@kluniversity.in
Dean (Academics)-Dr.V.R.Raghuveer	dean.academics@kluniversity.in
Additional Dean (Academics) – Dr. K Thirupathi Rao	Addldean.academics@kluniversity.in
Dean (Quality)-Dr.K.Rama Krishna	drkrk@kluniversity.in
Dean (Faculty & Staff Affairs) - Dr.P.V.Chalapathi	pvc@kluniversity.in
Dean (P&D)-Dr.V. Rajesh	rajesh4444@kluniversity.in
Dean (Skill Development)/ Principal, Academic Staff College -Dr.A. Srinath	srinath@kluniversity.in
Dean (MH&S)-Dr.M. Kishore Babu	kishore@kluniversity.in
Dean (R&D)-Dr.B.Jaya Kumar Singh	jksingh@kluniversity.in
Dean (Student Affairs)- Dr.Ch. Hanumantha Rao	hrao_ce@kluniversity.in
Dean (International Placements & Internship)-Dr.N.B.V. Prasad	nbvprasaad@kluniversity.in
Additional Dean (F&SA) – Dr.V. Srikanth	vsrikanth@kluniversity.in
Principal, College of Engineering-Dr.T. Rama Krishna	principal.coe@kluniversity.in
Principal, Law College-Dr.Indu Pavan Kumar	principal.law@kluniversity.in
Principal, KL College of Pharmacy- Dr.G. Chakravarthi	chakra_varthi123@kluniversity.in
Principal, KL College of Architecture- Ar. Venkatesan Selvaraj,	principal.arch@kluniversity.in
Principal, College of Science-Dr.K. Subrahmanyam	principal.cos@kluniversity.in
I/c Registrar/Director, FED- Dr.A. Jagadeesh	registrar@kluniversity.in
Vice-Principal & Coordinator, FED-Dr.V. Krishna Reddy	vkrishnareddy@kluniversity.in
Director-E Learning-Sri C Shanath Kumar	directorcdoe@klh.edu.in
Director-In-charge- Prof.K. Koteswara Rao	directoradminoffice@klh.edu.in
Principal-Engineering- Dr.L. Koteswara Rao	principal.engg@klh.edu.in
HoD-BT-Dr.K. Giridhar	giridharkanuri@kluniversity.in
HoD-CSE(Honours)- Mr. Hari Kiran Vege	hari.vege@kluniversity.in
HoD-CSE – Dr.T. Pavan Kumar	pavankumar_ist@kluniversity.in
HoD-CS & IT-Dr.K. Amarendra	amarendra@kluniversity.in
HoD , AI&DS- Dr. B. Thirapathi Reddy	tirapathireddyb@kluniversity.in
HoD, Civil Engineering- Mr.K. Hemanth Raja	khraja@kluniversity.in
HoD-ECE- Dr.M. Suman	suman.maloji@kluniversity.in
HoD-Computer Engg. & ECM- Dr.M.S.G. Prasad	hod.ecm@kluniversity.in
HoD-EEE- Dr.J. Somlal	hod.eee@kluniversity.in
HoD-MECH- Dr.D.V.A.Rama Sastry	dvarsastry@kluniversity.in
HoD-CSE – Hyderabad Campus - Dr.ChiranjeeviManike	csehod@klh.edu.in
HoD-ECE – Hyderabad Campus – Dr.M. Goutham	ecehod@klh.edu.in
HoD-AI&DS– Hyderabad Campus -Dr. Sandeep Reddy Chitreddy	ai-dshod@klh.edu.in
Coordinator-FED-– Hyderabad Campus -Dr. G. Rekha	fedcoordinator@klh.edu.in

ACRONYMS

Sl No	Acronyms	Full Form
1	KLEF	KoneruLakshmaiah Education Foundation
2	CET	Common Entrance Test
3	KLEEE	KLEF Engineering Entrance Examination
4	JEE	Joint Entrance Examination
5	BT	Bio Technology
6	CE	Civil Engineering
7	CS	Computer Science &Engineering
8	EC	Electronics & Communication Engineering
9	EE	Electrical & Electronics Engineering
10	CM	Computer Engineering
11	ME	Mechanical Engineering
12	AD	Artificial Intelligence & Data Science
13	CI	Computer Science & Information Technology
14	CGPA	Cumulative Grade Point Average
15	SGPA	Semester Grade Point Average
16	LTPS	Lecture, Tutorial (Studio for Architecture), Practical, Skill
17	SEE	Semester-End Examinations
18	SIE	Semester-In Examinations
19	OJET	On-the-job Engineering Training
20	IRP	Industrial Relations and Placements
21	PS	Practice-School
22	OPAC	Online Public Access Catalog
23	QCM	Quality Circle Meeting
24	MOOC	Massive Open Online Course
25	MOU	Memorandum of Understanding
26	OD	On Duty
27	(A,B]	Between A and B excluding value A and including value B
28	COE	Controller of Examinations
29	VLSI	Very-Large-Scale Integration
30	M.Tech	Master of Technology
31	COA	Council of Architecture
32	JEE	Joint Entrance Examination

33	NATA	National Aptitude in Architecture
34	PC	Professional Core
35	BSAE	Building Science and Applied Engineering
36	PE	Professional Elective
37	PAECC	Professional Ability Enhancement Compulsory Courses
38	SEC	Skill Enhancement Course
39	OE	Open Elective
40	CTIS	Cloud Technology and Information Security
41	DS	Data Science
42	IoT	Internet of Things
43	IPA	Intelligent Process Automation
44	PCI	Pharmacy Council of India
45	PY	Pharmacy
46	B.Com (H)	Bachelor of Commerce with Honors
47	ACCA	Association of Chartered Certified Accountants
48	HM	Hotel Management
49	BTK	Basic Training Kitchen
50	QTK	Quantitative Training Kitchen
51	ATK	Advanced Training Kitchen
52	MBA	Master of Business Administration
53	BBA	Bachelor of Business Administration
54	MSc (F&C)	Master of Science (Finance & Control)
55	BA	Bachelor of Arts
56	M.Sc	Master of Science

CHAPTER 1

Introduction

The President of Koneru Lakshmaiah Education foundation, Er. Koneru Satyanarayana, along with Late Sri.KoneruLakshmaiah, founded the K L College of Engineering in the Academic year 1980-81. With the mighty vision and restless efforts of Er. Koneru Satyanarayana K L College of Engineering carved a niche for itself through excellence in engineering education, discipline and record numbers of placements and was the leading college in the state of AP. K L College of Engineering achieved NBA Accreditation for all its B.Tech. Programs in 2004 and later re-accredited in 2007. K L College of Engineering was transformed into an autonomous engineering college in the year 2006. In 2008 this college received a record grade of 3.76 on a 4 points scale with "A" Grade from NAAC; and in February 2009, the college, and Accredited by National Assessment and Accreditation Council (NAAC) of UGC as 'A^{++}' with highest Grade of 3.57 CGPA on 4-point scale in 2018, through its founding society "Koneru Lakshmaiah Education Foundation" was recognized as Deemed to be University by the MHRD-Govt. of India, Under Section 3 of UGC Act 1956. This Deemed to be University is named as "KLEF".

Location

Vijayawada is located on the banks of river Krishna in the state of Andhra Pradesh and has been historically a cultural, political and educational center. It is also a part of Andhra Pradesh Capital Region. The city is well connected by National Highway and Railways with Chennai (440 km), Hyderabad (275 km), and Vizag (385 km) and is a central junction for trains running from North to South India. Daily flights operate from Hyderabad and BangalorKLEFis situated in a spacious 100-acre campus on the banks of Buckingham Canal of river Krishna, eight kilometers from Vijayawada city. Built within a rural setting of lush green fields, the institute is a virtual paradise of pristine nature and idyllic beauty. The campus has been aptly named "Green Fields" and the splendid avenue of trees and gardens bear testimony to the importance of ecology and environment. The campus ambience is most befitting for scholastic pursuits. The University has been situated in a built-up area of around 15, 00,000 S.Ft.

Hall Marks:

- **NAAC A++ Grade** with 3.57 CGPA on 4-pointscale
- **CATEGORY-1** University by UGC under the categorization of universities for grant of Graded Autonomy
- UGC Recognized under section **12B** of UGC Act1956
- Approved by MHRD & UGC (Under Section 3 of UGC act1956)
- ISO 9001 - 2015 CertifiedInstitution

- NIRF Rank University :27, Engineering: 44, Management:47

Facilities:

Central Library: E-Resources

The Central Library is the largest and holds materials to serve the whole University community. It has materials relevant to the Engineering, Science & Humanities courses offered by the University.

The library system contains more than one lakh and fifty thousand books and periodicals on all subjects related to the teaching and research interests of the University staff and students. The library has over 36,000 electronic journal titles, academic databases and 32.98 lakhs e-Books. Access is available on campus on student computers and remotely.

A new library building will be opened shortly on par with international standards with modern IT facilities. Every department of the college maintains their library to cater to the needs of students and faculty. All foreign and Indian journals are made available in the department library for the convenience of faculty and students.

The libraries render the following library services.

- Circulation of librarydocumentary.
- Inter-library loanservices.
- Photo copyingservices.
- Reference service.
- CD-ROM searchservices.
- Internetservices.
- OPAC
- WEBOPAC
- Audiovisual
- Onlinelectures

The Data Center:

A State-of-the-Art Data center with advanced servers provides a highly interactive learning environment with full-fledged hardware and software training facilities.

Hardware: The configuration of high-end stream of servers that provides various services.

Supercomputer

HPC Infrastructure (Supercomputer): 5.3 TERA Flops (CPU +GPU)HPSL2304 *SL230sGen8,(2*2.6GHz,32GBRAM,2x500GBHD,10GIBHCA) providing 1.3TFHPSL2502 *SL250sGen8,(2*2.6GHz,32GBRAM,2x500GBHD,10GIBHCA + 2 NVIDIA K20 GPU providing -4TF.

Master Node:HP DL 380P 1* DL380p Gen8 (2 * 2.6Ghz, 64GB RAM, 2x2TB HD, 10G IB HCA).Compute Switch (48 Port Low latency switch) Q Logic IB QDR 36 PortSwitch.Intel® Composer XE forLinux.

Servers, Dell and HP Blade Servers, Apple ServerX server.

Special Laboratories:

The institute is equipped with various Industry Collaborated Labs

S. No	Discipline	Name of the Lab	Research Group Associated
1.	Computer Science & Engineering	CISCO	Computer Networks and security
2.	Computer Science &Engineering	IBM	Software Engineering
			Knowledge Engineering
3.	Computer Science & Engineering	Microsoft	Embedded Systems
			Software Engineering
			Knowledge Engineering
4.	Computer Science & Engineering	Adobe	Web technologies
			Image processing
5.	Computer Science & Engineering	Oracle	Knowledge Engineering
6.	Electronics & Communication Engineering	NI LabView	Communications Systems
7	Mechanical Engineering	APSSDC Dassault Systems lab, with Dassault 3 D experience suite	Design & Manufacturing, Robotics & Mechatronics
8	Mechanical Engineering	Center for system Dynamics & Condition Monitoring	Design & Manufacturing
9	Mechanical Engineering	MSC: NASTRAN/ PATRAN/ ADAMS simulation suite	Design & Manufacturing

Physical Education- Sports Facilities:

KLEF encourages students to explore their latent talents by providing good games and sports facilities. The institute is equipped with the following.

Sport/Game	No. of Courts	Sport/Game	No. of Courts
Athletic track	1	Handball Court	1
Hockey Field	1	Netball Courts	2
Badminton Courts	4	Throw ball courts	2
Tennikoit Courts	2	Beach Volleyball Court	1
Cricket Field with Net practice	3	Football Field	1
Volleyball Courts	2	Basketball Courts	2
Tennis Courts	2	Kabaddi Courts	2
Kho Kho Court	1	Table Tennis	6
Soft Ball	1	Chess	20
Archery	1	Caroms	12

The University had a State-of- the - Art Indoor stadium of 30000 sq.ft with:

- 4 wooden Shuttle Courts/ BasketballCourt
- Yoga and MeditationCenter
- Dramatics
- 8 Table TennisTables
- HobbyCenter
- Gymnasium forGirls
- Gymnasium forBoys
- Multipurpose room with Chess, Caromsetc.
- Power lifting/Weightlifting

Accommodation- Hostels

- KLEF has separate hostels for boys and girls with well furnished rooms and modern amenities.
- The overall atmosphere is very conducive for the students to concentrate ontheir studies.
- A state- of – the- art kitchen and spacious dining area has been provided for both the hostels.

- Generators have been provided as power backup. Emphasis has been laid on hygiene and cleanliness for healthy living. A customized menu caters to the student needs, it keeps changing according to theirtastes.

- Teaching staff will have to address the academic and personal problems of thestudents. Round-the-clock security, communication, dispensary facilities are alsoavailable.

The Girls Hostel

The girl's hostel is within the campus with a capacity of 1192 in 500 rooms. Different rooms accommodating 2 per room, 3 per room with attached toilets as well as A.C. rooms are available. Suite rooms with modern furniture and a separate study room are alsoavailable.

The Boys Hostel

It is a short walk from the university with a capacity of 2040 in 780 rooms. Different rooms accommodating 2 per room, 3 per room with attached toilets as well as A.C. rooms are available.

Facilities in the Hostels

- Protected drinking water
- State of the art kitchen, dining hall
- Newspapers, telephones, toilets and bathrooms are well maintained.
- Every student in the hostel is provided with a cot, study table, chair and a rack.
- Fan and light are also provided in eachroom.
- Gas & Steam based hygienic food preparation
- Palatable regional, national and international cuisines
- Cleanliness andSafety STD/ISD Facilities
- Medical Kits and First AidBoxes Soft drinks, snacks, Fruitsetc.
- Laundry Stationaryshop

Hostel Rules &Regulations

- Students are hereby informed that while staying in the hostel, it is essential to be responsible for maintaining dignity by upholding discipline.
- They must be obedient to the hostel warden/floor in –charges. Valuable items like jewelry etc. should not be kept with students while staying in the hostel.
- It is student's own responsibility to safeguard her/his Laptops, Money by locking suitcases and bags.
- If any loss is found, management will not take any responsibility. Students must intimate to the hostel authorities before giving police complaints againstlosses.

- Students are not allowed to indulge in smoking; consumption of Alcohol, Narcotic drugs etc., and defaulters will be strictly viewedupon.
- Students are directed that after locking their rooms they must hand over the keys to security and can collect them on returning to thehostel
- Students must switch off Fans, Lights, Geysers, A/C's etc., before leaving their rooms.
- Visitors are not allowed inside the hostel at any time; however, they are allowed into the visitor's hall with the prior permission of the warden.
- Only family members listed by the parents are allowed to contact the student. Visiting hours are up to 7.30 pm only and after 7.30 pm visitors are required to leavethe premises.
- Hostel students are not allowed to come into the hostel after 3.00 pm in case morning shift students and 6.00pm for day shift students.
- Those students who are utilizing computer lab, library etc., after the times specified mustsubmit the permission slip to the security while entering the hostel.
- During public holiday outings, those who seek permission to leave the hostel will have to obtain written permission from the warden. Permission will be given only to those students who get permission from parents to leave the hostel during holidays/outings.
- Moving out of campus without permission is strictly prohibited. Strict study hours from 7.30 am to10.30 pm shall be maintained in the hostel.
- The hostellers must be in their allotted rooms during study hours. The general complaints of any kind should be noted in the complaint register, which is available at the hostel office.
- Registered complaints will only be entertained. Any health problem should be brought to the notice of Warden/Floor In – charge for necessary treatment.

Transportation:

The institution runs 80 buses covering all the important points in Vijayawada City, Mangalagiri, Guntur & Tenali towns with a total seating capacity of 4000 students in two shifts. Transport is available 24 hrs. In case of any emergency in the institute /hostels. Transportation is available for conducting industrial tours and visits etc. Regular transport facility available up to 10PM.

Health Centre:

A full-fledged health center with all the facilities is established to cater to the needs of the students, staff, Faculty and to the general publicin the adopted villages. It consists of three doctors (Homoeopathy, Ayurvedic &Allopathy).

Cafeteria:

KLEF has a spacious canteen with the latest equipment and a hygienic environment which provides quality food and prompts service and caters to the needs of all the students and staff. A central

cafeteria of 1500 Sq.m. is available on the campus. Mini cafes and fast-food centers are available in variousblocks. The canteen is open from 6:30 a.m. to 8:30 p.m. There is a wide variety of North-Indian and South-Indian cuisine and the students enjoy the pleasure of eating during the breaks. Cool aqua water for drinking is available.

Placements:

KLEF has meticulously planned to make all its outgoing students employed. The University had installed the infrastructure, employed well experienced faculty, designed and delivered programs that help to enhance the communication and soft skills which are required for making the students employable. An excellent system is in place that considers all the issues that make a student employable. The University has been successful for the last 7 years in employing all the students who have registered and eligible for placement through its offices located across the country. About 50 trained personnel work extensively to make the students ready for recruitment by the industry.

Counseling & Career Guidance:

A special Counseling Cell consisting of professional student counselors, psychologists, and Professors counsels/helps the students in preparing themselves to cope with studies, perform well in the tests & various competitions. This Cell provides its services to the students in getting the solutions for their personal problems and provides career guidance with the help of Industrial Relations and Placements (IRP) department. A group of 20 students are allotted to each faculty member who counsels them regularly and acts as theirmentor.

Social ServiceWing:

KLEF has a social service wing which is used to channelize the social service activities of the faculty, staff and students. It has adopted 5 nearby villages and conducts activities like medical camps, literacy camps and educates the villagers regarding hygiene and health care on a regular basis.

NSS/NCC Wing ofInstitute:

NCC/NSS is a credit course designed with an intent to transform NCC/NSS activities into curricular activities from an extra curricular thereby providing credits to students involved in NCC/NSS along with other attended advantages to the students in theuniversity

Hobby Clubs:

Wholly and solely managed by the students, the clubs have in the past contributed much to the cultural life of the campus and to the cultural evolution of the students, few student bodies and clubs operate in the campus like music society, dance club, drama society, literary and debating club, English press club, drawing club, painting club, mime club, computer club etc. Students manage entire activities and budget of the organization for the entire semester in advance. Around 4000

students are active members of the HobbyClubs.

Life Skills and Inner Engineering:

KLEF feels that it is its responsibility to mold the students as good human beings, contributing to the country and to society by producing responsible citizens. Along with the regular programs every student admitted into KLEF undergoes a one-week special life skills /orientation program. Through this program, KLEF is producing the students with the clarity of thoughts and charity at heart. Strict regularity, implicit obedience, courtesy in speech and conduct, cleanliness in dress and person is expected of each KLEF student. Life skills and inner engineering teach a student his/her obligation towards GOD, himself /herself his/her country and fellow human beings. Every student is encouraged to practice his/her own religious faith and be tolerant and respectful towards other religions.

Technical Festival:

KLEF organizes various programs for the all-round development of the students. The technical festival and project exhibition is being organized in the odd semester (October) every year to elicit the innovative ideas and technical skills of the students.

Cultural Festival:

The cultural festival in the even semester (February) of every year is the best platform for the students to exhibit their talents and creativity. Through these festivals KLEF is imparting organizational skills, leadership skills, competitive spirit, and team behavior skills to our students. Along with the knowledge, KLEF festivals provide recreation to the student community.

Center for Innovation, Incubation and Entrepreneurship (CIIE):

KLEF being a pioneering institute supporting Academics and Research in Engineering, Science and Technology is endowed with the entire infrastructure and highly experienced faculty, has a Centre for Innovation, Incubation and Entrepreneurship (CIIE) that comprises of: Innovation Centre which aims to inculcate a spirit ofinnovation. Incubation Centre which aims to incubate innovations through prototype product development. Entrepreneurship Development Centre (EDC) which aims at fostering entrepreneurial skills among thestudents.

Chapter 2
PROGRAM EDUCATIONAL OBJECTIVES (PEOs) and PROGRAM OUTCOMES (POs)

Engineering Undergraduate Programs

To be a globally renowned university, as per our vision, we need to produce quality products (graduates) into the market who have potential strengths to meet all the professional and personal challenges prevailing at global levels and who can serve in all the possible positions of their respective job domains and contribute towards holistic growth of their respective employment providers as well as the nation, world. The graduates must also possess cutting edge R&D skills in their domain areas.

This is exactly what has been framed into the University's Mission and thereby the Mission has converted into the following **Program Educational Objectives (PEOs)** which are best suited to Undergraduate Engineering programs, and are those that complement the university vision, mission.

Program Educational Objectives of B.Tech Program:

PEO No	Description
PEO1	Practice engineering in a broad range of industrial, societal and real-world applications.
PEO2	Pursue advanced education, research and development, and other creative and innovative efforts in science, engineering, and technology, as well as other professional careers.
PEO3	Conduct themselves in a responsible, professional, and ethical manner.
PEO4	Participate as leaders in their fields of expertise and in activities that support service and economic development throughout the world.

Program Outcomes (POs):

PO No	Description
PO1	**Engineering Knowledge: An** ability to apply knowledge of mathematics, science, engineering fundamentals and an engineering specialization for the solution of complex engineering problems in engineering
PO2	**Problem Analysis: An** ability to identify, formulate, research literature, analyze complex engineering problems in mechanical engineering using the first principles of mathematics, natural sciences and engineering sciences
PO3	**Design/ development of solutions: An** ability to design solutions for complex engineering problems and system component or processes that meet the specified needs considering public health & safety and cultural, societal & environment
PO4	**Conduct investigations of complex problems: An** ability to use research-based knowledge and research methods including design of experiments, analysis and interpretation of data and synthesis of the information to obtain solutions to engineering problems.

PO5	**Modern tool usage: Ability** to create, select and apply appropriate techniques, resources and modern engineering activities, with an understanding of the limitations.
PO6	**The engineer and society: Ability** to apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
PO7	**Environment and sustainability** Ability to demonstrate the knowledge of engineering solutions, contemporary issues understanding their impacts on societal and environmental contexts, leading towards sustainable development.
PO8	**Ethics:** An ability to apply ethical principles and commit to professional ethics and responsibilities and norms of engineering practice.
PO9	**Individual and team work: An** ability to function effectively as an individual, and as a member or leader in diverse teams and in multi-disciplinary settings.
PO10	**Communication: Ability** to communicate effectively oral, written reports and graphical forms on complex engineering activities.
PO11	**Projectmanagementandfinance: Ability**todemonstrate knowledge and understanding of engineering and management principles and apply those one's own work, as a member and leader in team, to manage projects and in multi-disciplinary environments
PO12	**Lifelong learning** An ability to recognize the need for and having the preparation and ability to engage independent and life-long learning in broadest context of technological change

Program Specific Outcomes (PSOs):

Biotechnology	
PSO1	Graduates will be able to design, perform experiments, analyze and interpret data for investigating complex problems in biotechnology Engineering and related fields.
PSO2	Graduates will be able to justify societal, health, safety and legal issues and understand their responsibilities in biotechnological engineering practices.
Civil Engineering	
PSO1	Function as design consultants in construction industry for the design of civil engineering structures.
PSO2	Provide sustainable solutions to the Civil Engineering Problems.
Computer Science & Engineering	
PSO1	An ability to design and develop software projects as well as Analyze and test user requirements.
PSO2	An Ability to gain working Knowledge on emerging software tools and technologies.
Electronics & Communication Engineering	
PSO1	An ability to Understand the theoretical and mathematical concepts to analyze real time problems.
PSO2	An Ability to Design and Analyze systems based on theoretical and Practical Knowledge

Electrical & Electronics Engineering	
PSO1	Knowledge and hands on competence in simulating, developing, Testing, operation and maintenance of Electrical & Electronics systems.
PSO2	Able to work in multi-disciplinary environments with knowledge of Electrical and Electronics domain and in Project Management techniques, environmental issues and green technologies.
Mechanical Engineering	
PSO1	An ability to demonstrate knowledge, skill to analyze the cause and effects on machine elements, processes and systems.
PSO2	An ability to apply the acquired Mechanical Engineering knowledge for the advancement of society and self.
Artificial Intelligence and Data Science	
PSO1	An ability to design and develop Artificial Intelligence technology into innovative products for solving real world problems.
PSO2	An ability to design and develop Data Science methods for analyzing massive datasets to extract insights by applying AI as a tool
PSO3	An ability to apply basic principles and practices of computing supported by mathematics and science to successfully develop software related engineering projects to meet customer business objectives and/or productively engage in research.
Computer Science & Information Technology	
PSO1	An ability to Identify, Design, and Analyze complex computer systems, Implement and Interpret the results from those systems.
PSO2	An ability to select and apply current techniques, skills, and tools necessary for computing practice and integrate IT-based solutions into the user environment effectively.
Electronics and Computer Science	
PSO1	Ability to design systems and desired needs for sustainable development and engineering solutions to the problems using knowledge and skills developed in thrust areas.
PSO2	Ability to solve Electronics Engineering problems using the latest hardware and software tools, to achieve cost effective and optimal solutions in the domain of Internet of Things and hardware security
Internet of Things	
PSO1	An ability to Understand the theoretical and mathematical concepts to analyze real time problems and develop the systems to resolve.
PSO2	An Ability to Design and Analyse systems based on theoretical foundation, Professional Knowledge and Practical Skills.

ENGINEERING POSTGRADUATE PROGRAMS
MASTER OF TECHNOLOGY
PROGRAM EDUCATIONAL OBJECTIVES

PEO NO	DESCRIPTION
PEO1	To mould the students to become effective global science students in the competitive environment of modern society.
PEO2	To provide students with strong foundation in contemporary practices of Science, different functional areas and scientific environment
PEO3	To emphasize on application oriented learning.
PEO4	To develop communication, analytical, decision-making, motivational, leadership, problem solving and human relations skills of the students.
PEO5	To inculcate professional and ethical attitude in students.
PEO6	To pursue lifelong learning as a means of enhancing knowledge and skills necessary to contribute to the betterment of profession

PROGRAM OUTCOMES

M.TECH - BIOTECHNOLOGY

PO NO	DESCRIPTION
PO1	Ability to practically apply various Biotechnological concepts.
PO2	Demonstrate knowledge of innovative and modern bio engineering practices.
PO3	Synergize biological sciences with engineering and solve various societal and health problems.

M.TECH-STRUCTURAL ENGINEERING

PO NO	DESCRIPTION
PO1	An ability to independently carry out research/investigation and development work to Solve practical problems.
PO2	An ability to write and present a substantial technical port/document
PO3	Students should be able to demonstrate degree of mastery for designing and solving structural engineering problems.
PO4	An ability to use appropriate modern tools in structural engineering. In doing so he should demonstrate sufficient knowledge of competing tools and their relative merits and demerits
PO5	An ability to demonstrate the traits of learning and unlearning throughout his Professional career, and be willing to learn new techniques, methods and processes
PO6	Tune his knowledge to be a responsible engineer adhering to all established practices of his profession

M.TECH-CONSTRUCTION TECHNOLOGY & MANAGEMENT

PO NO	DESCRIPTION
PO1	An ability to independentlycarryoutresearch/investigationanddevelopmentworkto Solve practical problems.
PO2	An ability to write and present a substantial technical report/document.
PO3	Students should be able to demonstrate a degree of mastery over the area as per the specialization of the program. The mastery should be at a level higher than the requirements in the appropriate bachelor program
PO4	Students should be able to understand how to implement construction process using effective and efficient project planning tools, they will able to identify the activities and coordinate resources and create goals and objectives to complete individual task
PO5	Students should be able to understand how to use mathematics logic and technology to help effectively and efficiently analysis the project and solve problems required for technical tasks
PO6	Students should be able to understand concepts related to running sustainable projects and business

M.TECH-GEOTECHNICAL ENGINEERING

PO NO	DESCRIPTION
PO1	Independently carry out research/investigation and development work to solve practical problems.
PO2	Write and present a substantial technical report/document.
PO3	Demonstrate a degree of mastery over geotechnical engineering.
PO4	Identify Engineering solutions to problematic soils and provide suitable foundation.
PO5	Apply modern tools for designing geo technical structures.
PO6	Work in inter-disciplinary engineering teams with social responsibility and ethical values and pursue lifelong learning.

M.TECH-COMPUTER SCIENCE ENGINEERING

PO NO	DESCRIPTION
PO1	Apply the knowledge of computer engineering principles and paradigms in the design of system components and processes that meet the specific needs of the industry.
PO2	Identify, analyze and formulate solutions to complex engineering problems using innovative and emerging technologies.
PO3	Effectively communicate technical information in speech, presentation and documentation.
PO4	Extract information relevant to novel problems and apply appropriate research methodology to develop scientific knowledge.

PO5	Self-learn and pursue higher studies to upgrade qualifications and attain constructive growth in profession.
PO6	Make valuable contributions to design, developer by practicing related engineering applications and algorithmic methods.
PO7	Provide exposure to latest tools and technologies based on the industry needs and contribute to valuable research findings in the specialized domains.

M.TECH-RADAR & COMMUNICATION

PO NO	DESCRIPTION
PO1	An ability to identify, formulate, research literature, analyze complex Engineering problems in the area of communications and RADAR to cater national and industrial needs.
PO2	An ability to develop solutions for complex problems in communication system design and RADAR system component or processes that meet the specified needs considering.
PO3	Ability to create and apply appropriate techniques using modern industrial and Research tools for modeling and testing of antennas, communications system modules and RADAR systems.
PO4	An ability to design the experiments, analysis and interpretation of data and synthesis of the information using various modern and industrial tools to obtain solutions for complex problems in industries, military and social needs.
PO5	Ability to apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues, ethical principles of Engineering practices and the consequent responsibilities relevant to the RADAR engineering.
PO6	Exposure to prerequisite math's and a mathematically rigorous approach to Communication theory will provide him with all the necessary background to pursue a career in any field of communications going forward in his career.
PO7	An ability to function effectively as an individual, and as a member or leader in diverse teams and in multi-disciplinary settings for project management by demonstrating the knowledge and understanding of principles of communication systems and radar, and apply those one's own work, as a member and leader in team, to manage projects and in multi-disciplinary environments.

M.TECH - VLSI

PO NO	DESCRIPTION
PO1	Apply the knowledge of science, mathematics, and engineering principles for developing problem solving attitude and get sound knowledge in the theory, Principles and applications of VLSI Circuits and Systems.
PO2	Configure recent EDA tools, apply test conditions, deploy and manage them.
PO3	Design and conduct experiments, analyze and interpret data, imbibe Programming skills for development of simulation experiments.
PO4	Ability to demonstrate the knowledge of engineering solutions, and function as A member of a multi disciplinary team with sense of ethics, integrity and social responsibility.

PO5	To develop, design and implement projects with given specifications, in order to Cater industrial needs.
PO6	Ability to investigate develops and carries out research to solve industrial Problems related to designing and testing of VLSI systems.
PO7	Design a system, component or process as per social needs and specifications and also will be aware of contemporary issues.

M.TECH - ELECTRIC VEHICLE TECHNOLOGY

PO NO	Description
PO1	An ability to independently carry out research / investigation and development work to solve electric vehicle design and control problems
PO2	An ability to write and present a substantial technical report/ document.
PO3	An ability to design and test models, sub-systems and integration of electric vehicle technologies

M.TECH - POWER ELECTRONICS AND POWER SYSTEMS

PO NO	Description
PO1	An ability to independently carry out research / investigation and development work to solve practical problems pertaining to applications of power electronics and power systems
PO2	An ability to write and present a substantial technical report/ document.
PO3	An ability to design and control power electronic systems for sustainable power conversion and delivery

M.TECH – THERMAL ENGINEERING

PO NO	Description
PO1	Advanced knowledge of a broad range of modeling methodologies, and under lying mechanical science, commonly used in the development and analysis of Thermal engineering systems.
PO2	Knowledge off under mental design issues relevant to Thermal engineering, and an understanding of how to formulate and Analyse design solutions in various engineering contexts.
PO3	Working knowledge of arrange of modern mathematical methods and tools used in the development and analysis of Thermal engineering systems.
PO4	In-depth knowledge of one or more of the following (depending of selection of option modules and project area): specific engineering systems, design methods, modeling techniques, mathematical and/or numerical techniques.
PO5	Knowledge of basic research and development principles and practices relevant to main streaming Ineering industry.
PO6	Knowledge of key professional, safety and ethical issues arising in modern engineering industry.
PO7	Knowledge of time- management and work planning issues related to the Organization, implementation and successful completion, including reporting, of an individual, Masters

	level, engineering based project.

M.TECH – ROBOTICS AND AUTOMATION

PO NO	Description
PO1	Acquire in-depth understanding of the Robotic control engineering and navigational, robotic sensors concepts of contemporary issues, apply them to identify, formulate and analyze complex engineering problems.
PO2	Critical Thinking - Analyze complex robotics and automation engineering problems critically, apply independent judgement for synthesizing Robotics intellectual and creative advances for conducting research in a wider theoretical, practical and policy context.
PO3	Understanding the Human Activity Assistive Technology (HAAT) model. Understanding of the Assistive Robotic Manipulators (ARM) Justify the use of robots in rehabilitation. Discuss the current international safety standards for robotic assistive technologies
PO4	Ability to investigate develops and carries out designing and implementation of Human Machine Interface, Brain Machine Interface, and Robotics.
PO5	Robotics Programming skill set to modern simulation tools - Create, select, learn, and apply appropriate techniques, resources, including prediction and modelling.
PO6	Problem Solving - Think laterally and originally, conceptualize, and solve robotics and engineering problems, evaluate a wide range of potential solutions for those problems and arrive at feasible, optimal solutions after considering public health and safety, cultural, societal, and environmental factors in the core areas of expertise.
PO7	Capacity to design and develop an industry-based robotics systems, ability to enriching Robotics System Engineering and Artificial Intelligence based optimization algorithms and operational research.

M. Tech – MACHINE DESIGN

PO NO	Description
PO1	Advanced knowledge of a broad range of modeling methodologies, and underlying principles of mechanics, commonly used in the development and an analysis of mechanical machines and systems.
PO2	Knowledge off under mental design issues relevant to machine or mechanical component, and an understanding of how to formulate and analyse design solutions in various engineering contexts.
PO3	Working knowledge of a range of modern mathematical methods and tools used in the development and analysis of machines and mechanical systems.
PO4	In-depth knowledge of one or more of the following (depending of selection of option modules and project area): specific engineering systems, design methods, modeling techniques, mathematical and/ or numerical techniques.
PO5	Knowledge of basic research and development principles and practices relevant to main stream engineering industry.

PO6	Knowledge of key professional, safety and ethical issues arising in modern engineering industry.
PO7	Knowledge of time- management and work planning issues related to the organisation, implementation and successful completion, including reporting, of an individual, Masters level, engineering based project.

M.TECH – INTERNET OF THINGS

PO NO	Description
PO1	Apply the knowledge of science, mathematics, and engineering principles with a strong theoretical foundation, systematic professional knowledge, and powerful practical skills.
PO2	Strong Understanding of ARM- based Systems on Chip design and Embedded systems, sensors and instrumentation, edge and cloud computing with AI and ML.
PO3	Design and conduct experiments, analyze, and interpret data, imbibe programming skills in modern simulation, and AI& DS programming tools.
PO4	Ability to demonstrate the knowledge of engineering solutions, and function as a member of a multidisciplinary team with a sense of ethics, integrity, and social responsibility.
PO5	Ability to design, develop, and implement an IoT system with a multi disciplinary approach to cater to industrial needs.
PO6	Ability to investigate develops and carries out research to solve industrial problems related to designing and implementing IoT systems.
PO7	Design and develop a system with IoT technology to develop solutions to real-world problems as per social needs and be aware of contemporary issues.

Management, Humanities and Sciences

UG Programs

Bachelor of Architecture (B.Arch)

Program Educational Objectives (PEOs)

PEO1	Should be able to stimulate artistic sensitivity and creative powers.
PEO2	Strengthen intellectual growth and the capacity to develop creative andresponsible solutions to unique and changing problems.
PEO3	Acquireleadership capabilities necessary for the competent practice of architecture and lifelong learning.
PEO4	Pursue advanced education, research and development, and other creative andinnovative efforts in the field of Architecture.

Program Outcomes (POs):

PO1	Ability to gain knowledge of Humanities, Sciences and Architecture and theapplication of knowledge in practice.
PO2	Use the elements of Architecture and apply basic principles in ArchitecturalDesign.
PO3	Identify and solve the social, economical and cultural issues in ArchitecturalDesign.
PO4	Ability to apply theoretical knowledge to achieve Architectural Design solutions.
PO5	Recognize the ethical and professional responsibilities and the norms of Architectural practice.
PO6	Ability to research, review, comprehend and report technological developmentshappening in the field of Architecture
PO7	Communicate effectively and work in interdisciplinary groups according to theproject scale.
PO8	To guide the Building construction workforce in the right direction
PO9	Ability to understand the real-life situation in converting the On-paper design toOn-site design of Architectural Practice
PO10	To make the student design aesthetically pleasing, structurally viable buildingsand encourage technological advancements in the building construction industry.

Program Specific Outcomes (PSOs)

PSO1	PS01: Ability to enhance creative design skills in attaining design solutions inarchitecture.
PSO2	To understand the design complexity of the designed structure and use appropriate building construction techniques and technology for the particularstructure

Bachelor of Arts (B.A)

Program Educational Objectives (PEOs)

PEO1	Graduate will be able to exhibits their skills in Literature and diverse literaryworks.
PEO2	A graduate student able to analyze the aspects of History, Geography, PublicAdministration and Economy
PEO3	Graduate will be to apply knowledge, information and research skills to complexproblems in the field of Social Science and Humanities.

Program Outcomes (POs)

PO1	Provide knowledge and understanding of various fields of study in corediscipliines in the Humanities and Social Sciences
PO2	Develop critical and analytical skills to identify and resolve of problems with incomplex changing social, linguistic and literary context.

PO3	Understanding the general concepts and principles of selected areas of studyoutside core disciplines of the Humanities, Social Science and Languages
PO4	Follow independence in learning appropriate theories and methodologies with intellectual honesty and an understanding of ethical and human values
PO5	Encourage students to analyze the problems and apply this knowledge forremedies thereof
PO6	Enhance student's skills of effective communication and language learning i.e.reading, writing, listing and speaking another language with fluency and understand its cultural value.
PO7	Become well informed and updated member of the community and responsiblecitizen
PO8	Work with self esteem, self reliance, self reflection and creativity to faceadversities in the work and personal life
PO9	Inculcate leadership and administrative abilities for their future career
PO10	Increase inclination for higher studies and research in social sciences and Gain comprehensive knowledge to succeed in competitive examinations

Bachelor of Computer Applications (BCA)

Program Educational Objectives (PEOs)

PEO1	Practice Computer Applications in a broad range of industrial, societal and realworld applications.
PEO2	Pursue advanced education, research and development, and other creative and innovative efforts in science, engineering, and technology, as well as otherprofessional careers.
PEO3	Conduct them in a responsible, professional, and ethical manner.

Program Outcomes (POs)

PONO	Description
PO1	**Problem Analysis**: Ability to identify, formulate, research literature, and analyze complex computer application oriented problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and computerapplications.
PO2	**Design / development of solutions**: Ability to design solutions for complex computer application problems and design system components or processes that meet the specified needs with appropriate consideration for public health andsafety, and cultural, societal, and environmental considerations.
PO3	**Conduct investigations of complex problems**: Ability to use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide validconclusions.
PO4	**Modern tool usage**: Ability to create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
PO5	**Communication**: Ability to communicate and engage effectively with diverse stakeholders.
PO6	Ability to apply ethical principles and commit to professional ethics and responsibilities.
PO7	**Life-long learning**: Ability to recognize the need for and have the preparation and ability to engage in independent and life-long learning in the broadest context oftechnological change.
PO8	**Individual and teamwork**: Ability to function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

Programme Specific Outcomes (PSOs)

Cloud Technology and Information Security	
PSO1	An ability to use and develop cloud software, administrative features. Infrastructure services and architectural patterns; ethical hacking and forensic security technologies.
PSO2	An ability to gain knowledge on design and control strategy; techniques to secure information and adapt to the fast changing world of informationtechnology needs.
Data Science	
PSO1	Ability to apply the knowledge of computing tools and techniques in the field of Data science for solving real world problems encountered in the SoftwareIndustries.
PSO2	Ability to identify the challenges in Data analytics with respect to IT Industry and pursue quality research in this field with social relevance.

Internet of Things	
PSO1	An ability to apply pattern recognition and artificial intelligent techniques including statistical data analysis and quantitative modelling techniques to solve real world problems from various domains such as healthcare, social computing, economics, etc.
PSO2	PSO1: An ability to apply pattern recognition and artificial intelligent techniques including statistical data analysis and quantitative modelling techniques to solve real world problems from various domains such as healthcare, social computing, economics, etc.
Intelligent Process Automation	
PSO1	An ability to apply pattern recognition, machine learning, and artificial intelligent techniques including statistical data analysis and quantitative modelling techniques to solve real world problems from various domains suchashealthcare, social computing, economics, etc.
PSO2	An ability to recognize and analyze problems related to AI and ML applications along with their ethical implications

Bachelor of Business Administration

Program Educational Objectives (PEOs)

PEO1	To educate the business graduates to respond effectively in meeting thecompetitive business needs of the society.
PEO2	To nurture the spirit of Entrepreneurship among the students that propagates the business world.
PEO3	To train the students in emerging as efficient managers equipped with innovation, rationality and application oriented decision-making in the contextofthe ever-changing business environment.

Program Outcomes (POs)

PONO	**Description**
PO1	Core Business Knowledge Demonstrate competency in the underlying concepts, theory and tools taught in the core undergraduatecurriculum.
PO2	Critical Thinking skills Able to define analyze and devise solutions for multifunctional business problems and issues in the areas like Marketing, Finance, Human Resources and Production.
PO3	Global Perspective Identify and analyze relevant global factors that influences decision making in International Business Perspective
PO4	Investigation of complex problems An ability to use research-based knowledge and research methods including design of innovative processes, analysis and interpretation of data and synthesis of the information to obtain solutions toorganizational problems

PO5	Application of Statistical and Analytical tools Ability to create, select and apply appropriate analytical tools, techniques and methods in the modern managementactivities.
PO6	The Manager and society Ability to apply reasoning informed by the contextualknowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional management practices.
PO7	Legal Environment and sustainability Ability to demonstrate the knowledge of contemporary issues in legal aspects, understanding and reporting their impact on societal and environmental contexts, leading towardssustainableorganizational development through entrepreneurial orientation.
PO8	Ethics & Corporate Social Responsibility An ability to apply ethical principles and commit to professional ethics and responsibilities and norms of managementpractice.Identifyandanalyzeethicalconflictsandsocialresponsibility issues involving different stakeholders.
PO9	Individual and Team Work An ability to perform different roles effectively as an individual and a member or leader in diverse teams and in multi-disciplinarystreams with entrepreneurial edge.
PO10	Communication Ability to communicate effectively oral, written reports and graphical forms on complex managerial and administrative activities.
PO11	Project Management and Finance Ability to demonstrate knowledge and understanding of the business and operational activities and having sound knowledge in the financial aspects and applying those concepts to manageprojects in multi-disciplinary environments.
PO12	Lifelong Learning An ability to recognize the need for and having thepreparation and ability to engage independent and life-long learning in global context of technological and organizational change.

Bachelor of Commerce (B.Com)

Program Educational Objectives (PEOs)

PEO1	To produce best commerce graduates in the country as well as in Global.
PEO2	To equip students with updated inputs in the field of accounting and finance
PEO3	To provide practical explore as per corporate needs through summer intern shipand industrial training.

Program Outcomes (POs)

PO1	Ability to understand the world of trade and Commerce
PO2	Ability to apply the knowledge of Accounting, Finance and Taxation in theGlobal context
PO3	Ability to develop each graduate to be adept in identifying and understanding major trends in commerce in national and international level
PO4	Ability to develop each graduate to be a critical thinker and strong decision maker.
PO5	Ability to develop each graduate to be an effective and professionalcommunicator.
PO6	An understanding of professional and ethical responsibility in business relatedissues
PO7	Knowledge of contemporary issues in finance and accountancy
PO8	A recognition of the need for and an ability to engage in life-long learning incommercial activities
PO9	Enhance the skills of students competent to deal with Accounting and Financepractices at global level.

PO10	Develop commerce students as professional auditors and tax practitioners at national and international level.

Bachelor of Pharmacy (B.Pharm)

Program Educational Objectives (PEOs)

PEO1	To produce pharmacist workforce competent for the society.
PEO2	To produce pharmacy graduates with employable skills and hightechnicalCompetencein pharmaceutical industry and health caresectors
PEO3	To inculcate research activity and develop passion for discovery and innovations.
PEO4	To develop entrepreneurship qualities that support growth of pharmaceutical intellectual property and contribute for economic development throughout the world

Program Outcomes (POs)

PO1	Pharmacy Knowledge: Provide basic knowledge for understanding the principles and their applications in the area of Pharmaceutical Sciences and Technology.
PO2	Technical Skills: Develop an ability to use various instrument and equipment with an in-depth knowledge on standard operating procedures for the same.
PO3	Modern tool usage: Develop/apply appropriate techniques, resources, and ITtools including prediction and modeling to complex health issues and medicine effect with an understanding of the limitations.
PO4	Research and Development: To demonstrate knowledge of identifying a problem, critical thinking, analysis and provide rational solutions indifferent disciplines of Pharmaceutical Sciences and Technology
PO5	Lifelong Learning: Develop an aptitude for continuous learning and professional development with ability to engage in pharmacy practice and health education programs
PO6	Communication: Communicate effectively on health care activities with the medical community and with society at large, to comprehend drug regulations, write health reports and provide drug information.
PO7	The Pharmacist and Society: Apply reasoning informed by the contextual knowledge to comprehend medical prescription, perform patient counselling and issue or receive clear instructions on drug safety and the consequent responsibilities relevant to the professional pharmacy practice.
PO8	Ethics: Follow the code of ethics and commit to professional values andresponsibilities and norms of the pharmacy practice.
PO9	Environment and Sustainability: Understand the impact of the professional pharmacy solutions in societal and environmental contexts, and demonstrate theknowledge ofand need for sustainable development.
PO10	Pharmaceuticalproductdevelopment: Toapplytheknowledgeofmanufacturing, formulation and quality control of various pharmaceutical and cosmetic products
PO11	Competitive skills: Develop problem-solving skills and aptitude to participateand succeed in competitive examinations.
PO12	Invention and Entrepreneurship: Application of technical skills to integrate health care systems, design an effective product with commercial advantage andsocietal benefit, perform risk analysis and become entrepreneur.

Bachelor of Business Administration – Bachelor of Law (BBA- LLB)

Program Education Outcomes (PEOs)

PEO1	Should be able to stimulate compassion and creativity in the field of legalprofession.

PEO2	Strengthen intellectual growth and the capacity to develop ingenious and conscientious legal solutions to unique and varying tribulations of society andbusiness environment
PEO3	Acquire leadership capabilities necessary for the competent practice of law andlifelong learning in practice
PEO4	Pursue advanced education, research and development, and other innovative andpioneering efforts in the field of law

Program Outcomes (POs)

PO NO	Description
PO1	Ability togain knowledge of law and the application of such knowledge in practice
PO2	Be proficient to use the fundamentals and vital principles in law
PO3	Identify and solve the social, economic and cultural issues in law
PO4	Ability to synthesis academic knowledge to legal problems and find solutions
PO5	Recognize the ethical and professional responsibilities and the norms of advocacy
PO6	Ability to research, review, comprehend and utilize such knowledge for Law reform
PO7	Converse effectively and work in inter-disciplinary groups and legal institutions
PO8	To guide the trainee legal practitioners in the right direction
PO9	Ability to understand the real-life situation in legal profession and practice
PO10	To make the student to learn aesthetically pleasing practice and make it socially relevant

B.Sc (Hons) Agriculture

Program Education Outcomes (PEOs)

PEO1	To produce quality graduates in the field of Agriculture
PEO2	To keep student with updated knowledge in Agriculture
PEO3	To provide practical knowledge in the field of Agriculture

Program Outcomes (POs)

PO1	Agricultural **Knowledge:** To impart the knowledge of agricultural science with respect to agronomical and horticultural crops and to develop skills to solve complex problems
PO2	**Analysing ability:** To be well versed with different methodologies of crop growth monitoring, soil analysis methods, plant protection analysis, production and processing of seed (both straight varieties and hybrids) of various crops, biochemical analytic methods and by collecting the data through various field and lab equipment,
PO3	**Identify the solutions and problemsolving ability**: To identify various pests and disease of crops both field and Horticultural and suggest management strategies, which are location specific, environmentally safe, and economically sound.
PO4	**Research Insight**: To be able to aid in Agricultural Research Systems in the areas of Crop Management, Crop Production, Irrigation Management, Weed Management and crop

	improvement programs involving both conventional and biotechnological approaches
PO5	**Modern tools (equipment /software's) usage**: To be able to effectively use software tools, statistical applications, mathematical packages/models expertise in techniques of Extension and modern tools of ICTs to analyse, interpret and by effectively handling the data and to draw valid conclusions thereon and to transfer Agriculture technologiesfor modernize Agriculture use
PO6	**Ethics:** ability to apply ethical principles and commit to professional ethics and responsibilities and norms in agricultural practice committing for organic farming methods with less environmental footprint
PO7	**Environment, Sustainability and Society at thought and deed**: Ability to demonstrate the agricultural solutions to contemporary issues by understanding their impact on societal and environmental contexts, towards sustainable development
PO8	**Individual and team work**: To develop individual competence, critical and complex problem solving skills to solve the practical problems in the field of Agriculture and to demonstrate the abilities to work in a team.
PO9	**Communication**: To develop oral and written communication skills to articulate the agriculture technologies acting as liaison betweenAgricultural technologies and farmer community through effective modern communication approaches.
PO10	**Project formulation and sourcing of finance**: To come out as a good Agro-entrepreneur, Farm Manager/Agribusiness Person with sound knowledge in rural credit flow, banking systems, farm/enterprise budgeting, project management, marketing, supply chain management, Agricultural Policies for Governments
PO11	**Life long learning and upgradation**: To be able to device and manage profitable location-specific farming systems through integration of different enterprises such as crops (Field, Horticultural, Fodder, Flower, medicinal, etc.), live-stock, Agro-forestry, fisheries, sericulture, Apiculture, etc. duly managing Agri-Resources by iteratively and continuously learning and implementing the solutions for effective implementation for sustainableAgriculture with less environmental footprints.

B.Sc Food Technology
Program Education Outcomes (PEOs)

PEO1	Mould the students into food technology professionals for successful career in academics and industry
PEO2	Make students competent in the core and allied areas of food science and technology.
PEO3	Motivate the prospective food technologists to follow ethics and morals in their professional growth
PEO4	Equip the graduates for becoming entrepreneurs
PEO5	Prepare the students to serve the society and address global food security challenges through their profession

Program Outcomes

PO1	Knowledge in Food Science & Nutrition: Illustrate the chemical and physical properties of major food components, and the role of food processing in altering the composition, structures and functions.
PO2	Biochemical composition of foods: Recognize and distinguish the components, molecular structures and properties of major food components, influencing the functional properties of food molecules.

PO3	Microbial investigation on food spoilage: Identify the important pathogens and spoilage microorganisms in foods and compare the role and significance of microbial inactivation, adaptation on growth and response of microorganisms in various environments.
PO4	Design new inventions: Apply principles of food technology to design solutions for real time problems in Food Industry.
PO5	Usage of Modern Tools: Create, select, and apply appropriate techniques, resources, and modern technologies and tools with an understanding of the limitations.
PO6	Entrepreneur: Demonstrate knowledge of entrepreneurship and innovation, start, run and finish on enterprise.
PO7	Environment and Sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of and need for sustainable development.
PO8	Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO9	The Hospitality and Society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
PO10	Communication: Communicate effectively on complex technological activities with the food industry community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
PO11	Life-long learning: Recognize the need of self education and life-long learning process in order to keep abreast with the ongoing developments in the field of food technology.
PO12	Analysis of food products: Ability to identify, formulate, conduct research literature and analyze complex cooking problems using principles of microbiology, biochemistry and processing techniques.

MHS PG Programs

Master of Sciences (M.Sc Chemistry)

Program Educational Objectives (PEOs)

PEO1	To prepare students for successful practice in diverse fields of Chemical Sciences such as pharmaceutical, chemical, polymer / advanced material, energy, biotechnology and environmental engineering and in the fields of Societal expectations on time.
PEO2	To prepare students for advanced studies in Chemical sciences and its allied fields.
PEO3	To ensure our students to achieve excellence and get selected for high-ranking industrial, academic, Government and other professional positions, as well as to inculcate leadership qualities.
PEO4	To develop graduate's skills and awareness to become socially, ethically and morally responsible individual in all the challenges they take over, in our communities and in the field of chemical Sciences.

Program Outcomes (POs)

PO NO	Description
PO1	Ability to understand the scope and principle of Chemistry.
PO2	Ability to understand and implement complex chemical equations and chemical compositions.
PO3	Ability to analyze the outcomes of experiments on chemicals and their product
PO4	Ability to understand the chemicals deeply and their effects on environment and health.
PO5	Ability to connect the latest developments in Chemistry with the knowledge attained during academics and come up with better ideas.
PO6	Awareness of the impact of Chemistry in all domain of the society including environment, manufacturing, and production, etc.
PO7	Use modern techniques, decent equipments and Chemistry software's

Programme Specific Outcomes (PSOs)

PSO1	Global level research opportunities to pursue Ph.D programme targeted approachof CSIR – NET examination.
PSO2	Enormous job opportunities at all level of chemical, pharmaceutical, foodproducts, life oriented material industries
PSO3	Specific placements in R & D and synthetic division of polymer industries &Allied Division
PSO4	Discipline specific competitive exams conducted by service commission.

Master of Sciences (M.Sc Applied Mathematics)

Program Educational Objectives (PEOs)

PEO1	To assimilate and understand a large body of complex concepts and theirinterrelationships.
PEO2	Apply Advanced Mathematical Techniques to formulate, solve and analyzemathematical models of real-life problems
PEO3	To identify and apply suitable computational mathematical tools and techniquesto solve various complex Engineering problems and meaningful physical interpretation.
PEO4	To Demonstrate, communicate, and work, with people having diversifiedbackgrounds in individual and group settings, in an ethical and professional manner.

Program Outcomes (POs)

PONO	Description
PO1	To identify, formulate, abstract, and solve mathematical problems that use tools from a variety of mathematical areas, including algebra, analysis, probability, numerical analysis and differential equations
PO2	The program prepares students for a variety of mathematical careers. The current program has three identified tracks viz: Cryptography, Data analysis, Applied Mechanics, and Ph.D preparation. Students should be prepared for employment requiring mathematical skill and sophistication at the Master's level.
PO3	Apply mathematics and technology tools (MATLAB, R, and MINITAB) to solve problems.
PO4	Ability to do research in a particular topic agreed with a Supervisor, on which the student publish a research paper in a peer reviewed indexed journal.
PO5	To maintain a core of mathematical and technical knowledge that is adaptable to changing technologies and provides a solid foundation for lifelong learning.

PO6	Promote interdisciplinary research among allied subjects related to applied mathematics
PO7	Use symbolic and numerical software as part of practical computation.

Master of Sciences (M.Sc Physics)

Program Educational Objectives (PEOs)

PEO1	To develop strong student competencies in Physics and its applications in atechnology-rich, interactive environment.
PEO2	To develop strong student skills in research, analysis and interpretation ofcomplex information
PEO3	To prepare the students to successfully compete for employment in Electronics, Manufacturing and Teaching and to offer a wide range of experience in research methods, data analysis to meet the industrial needs

Program Outcomes (POs)

PONO	Description
PO1	Ability to understand the scope and principle of Physics.
PO2	Ability to solve the physical problems by applying physics principles
PO3	Ability to analyze the outcomes of Physics and electronics experiments and theirproduct.
PO4	Ability to demonstrate the knowledge in physics for managing the physicsprojects effectively.
PO5	Ability to connect the latest developments in Physics with the knowledgeattained during academics and come up with better ideas
PO6	Ability to do research in the fields related to Materials and Electronics.
PO7	Ability to understand and solve the complexity of Solid state physics.

Master of Business Administration (MBA)

Program Educational Objectives (PEOs)

PEO1	Make students to apply techniques of business analysis, data managementand problem-solving skills in order to support business management decision-making in the field of relevance.
PEO2	Inculcate leadership skills needed for implementing and coordinating organizational activities and managing change to explore business problems in depth for developing their functional knowledge to think strategically and to lead, motivate and manage teams across borders.
PEO3	Nurture with abilities to integrate business knowledge and management techniques to aidplanning and control in achanging environment and to enhance better career paths.

Program Outcomes (POs)

PO NO	Description
PO1	Core Business Knowledge: Able to synthesize the knowledge, management skills, and tools acquired in the program, which will be helpful to shape the organizations effectively.
PO2	Career Planning and Decision Making: Able to excel in their chosen career paths, by learning on how to live, adapt and manage business environmental change through decision making.

PO3	Critical Thinking and Leadership: Able to reflect upon and explore business and research problems in depth, to demonstrate leadership skills and to demonstrate ability to pursue new knowledge necessary to succeedin dynamic domestic and international business environments.
PO4	Manager & Society: Able to emerge as efficient managers equipped withinnovation, rationality and application-oriented decision-making in the context of the ever-changing business environment.
PO5	Team Building & Business Communication: Able to communicate effectively and to perform different roles efficiently as an individual or in a team in multi-disciplinary streams with entrepreneurial edge.
PO6	Business perspective and Sustainability: Able to gain an understanding of professional, legal, financial, marketing, production & operationalactivities, logistics, ethical, social issues and responsibilities
PO7	Application of Statistical and Analytical tools: Able to gain knowledge of contemporary issues and develops an art of using current techniques, skills, and necessary analytical tools for managerial practice.

Master of Computer Applications

Program Educational Objectives (PEOs)

PEO1	The Graduate will exhibit a great sense of leadership with competent knowledge, innovation and creativity in their field of specialization
PEO2	The Graduate will exhibit professionalism, ethical attitude communication skills and team work in their profession and adapt to current trends by engaging in lifelong learning

Program Outcomes (POs)

PO NO	Description
PO1	**Computational Knowledge**: Acquire knowledge of advanced programming practices, computing skills, and domain knowledge for developing applicationsoftware to solve real world problems
PO2	**Problem Analysis**: Ability to identify computing problem and analyze the component of problem using principles of mathematics, specialized computing and application strategies.
PO3	**Design and Development**: Design and develop efficient solutions for complex problems across differentdomains.
PO4	**Research:** Apply research-based knowledge and methodologies to analyze, design, validate result and interpret it into optimized conclusions
PO5	**Modern Tool Usage**: Create, select, adapt and apply appropriate techniques, resources and modern IT tools tosolve complex computing problems
PO6	**Project Management**: Demonstrate knowledge on project management principles, interpersonal skill and communicate in the team effectively to deliver solutions and operational procedures
PO7	**Communication**: Communicate effectively in the team and the user to deliver solution and operational procedures with professional standards and ethics

Master of Pharmacy (M.PHARM) – PHARMACEUTICS

Programme Educational Objectives (PEOs)

PEO1	**Knowledge & Understanding:** The pharmacy students should possess upon graduation, knowledge of pharmaceuticals, medication use and their safety and effectiveness.
PEO2	**Skill:** The graduate should be able to demonstrate his skills in providing quality pharmaceuticals, drug information and therapy including legal and ethical aspects.
PEO3	**Attitude:** The graduate should be able to inculcate the current knowledge, changes in technology, continuous upgrading of professional information and participation in implementation of National health programmes.

Programme Outcomes (POs)

PO NO	Description
PO1	**Pharmaceutical Sciences Knowledge:** Apply the knowledge of mathematics, science, pharmaceutical physical properties of the different pharmaceutical ingredients and the factor influencing them is very valuable for pharmaceutical dosage form design. Enables the students to learn about different packaging materials used in pharmaceutical industry and the factors governing their use.
PO2	**Unit Operations:** Pharmaceutical engineering renders knowledge about the basic unit operations that are taking place in pharmaceutical industry and the different factors associated with it. This information is useful for both pharmaceutics and pharmaceutical engineering.
PO3	**Entrepreneurship:** The knowledge on different pharmaceutical dosage forms are imparted on students. This knowledge comes while handling a pharmacy or a manufacturing unit or in the further courses.
PO4	**Design/Development of solutions:** The information on solid dosage forms like tablets and capsules, their formulation and quality control serves as an important perquisite for dosage form design.
PO5	**Application oriented Knowledge:** The knowledge of bio-pharmaceutics enables the students to visualize the effect of pharmacokinetic (ADMET) parameters on the biological effect of the drug. The correlation of pharmacokinetics and

	pharmacodynamics is thus introduced and is experimentally explained to them.
PO6	**Conduct investigations of complex problems:** To understand biopharmaceutical principles and pharmacokinetic principles through different compartment models, multiple dosage regimens, non-linear pharmacokinetics, and assessment of bioavailability and bioequivalence.
PO7	**Effective Citizenship:** Demonstrate empathetic social concern and equity centered national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.
PO8	**Ethics:** Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
PO9	**Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.
PO10	**Self-directed and Life-long Learning:** Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes.

Program Specific Outcomes (PSOs)

PSO1	**Knowledge and skills:** To impart knowledge and skills on criteria for formulation design, product development, evaluation, and optimization for better therapeutic efficacy.
PSO2	**Research & Career:** To create a talent pool by involving students in research projects and to make students to undertake research projects for scientific contribution to society. To foster ambitious desire among students to undertake higher studies, career growth and life-long learning.
PSO3	**Entrepreneurship:** Set-up pharmaceutical production unit to design and formulate pharmaceutical dosage forms. Validate the knowledge and skills gained through education to gain recognition in Pharmaceutical society and related field.

Doctor of Pharmacy (PHARM.D)

Programme Educational Objectives (PEOs)

PEO1	To provide a comprehensive pharmaceutical education leading to Doctor of Pharmacy (Pharm. D.) degree.
PEO2	To provide hands on training through state of art infrastructure to meet challenges of drug discovery and pharmaceutical care.
PEO3	To integrate knowledge and skills with clinical research to promote health care.
PEO4	Understand and appreciate the role of health care education in the development of society and on mankind's welfare. To inculcate leadership capabilities as member of health care team.

Programme Outcomes (POs)

PO NO	Description
PO1	**Life Sciences Knowledge:** Impart fundamental knowledge of physiology, anatomy, formulation science, and applied biochemistry, Chemistry of organic and inorganic compounds as per the monographs.
PO2	**Pathology and Pharmacology Knowledge:** Impart a thorough knowledge of relevant aspects of pathophysiological mechanisms, application of microbiology in pharmacy field, medical uses of natural drugs, and Pharmacological aspects of drugs.
PO3	**Community Pharmacy Knowledge:** To improve skills such as dispensing of drugs, ensure safe medication usage, patient counseling and improve patient care in community pharmacy set up.

PO4	**Clinical Pharmacist Knowledge:** To enhance practical clinical discussions, attending ward rounds, follow-up progress of patients, case presentation at discharge are imbibed through hospital postings. Participation in hospital camps, disease awareness programs will inculcate the social responsibility of the clinical pharmacists.
PO5	**Environment and Sustainability:** To understand the instrumental techniques applied in Good Laboratory Practice and following ICH-GCP guidelines, total quality management, quality review and documentation and study of regulatory bodies such as Drugs and Cosmetics Act, CDSCO guidelines, pertaining to regulatory environment.
PO6	**Design/Development of solutions:** To study the modern concept of rational drug design such as Quantitative Structure Activity Relationship, Computer Aided Drug Design and concept of antisense molecules.
PO7	**Investigations of Complex Problems:** To understand biopharmaceutical principles and pharmacokinetic principles through different compartment models, multiple dosage regimens, non-linear pharmacokinetics, and assessment of bioavailability and bioequivalence.
PO8	**Toxicology Knowledge:** To understand the toxicological aspects of individual class of xenobiotics such as pesticides, opiates, NSAIDs, Caustics, radiation, heavy metals, plant, food poisonings, snake bites, and envenomations.
PO9	**Ethics:** To understand the clinical aspects of drug development, such as phases, ethical issues, and roles and responsibilities of clinical trial personnel, design of clinical study documents, data management and safety monitoring in clinical trials.
PO10	**Problem Analysis and Learning:** In house scientific and social poster competition, Case study presentations, prescription auditing, and contribution to drug information centre.

Program Specific Outcomes (PSOs)

PSO1	Preparation of individualized therapeutic plans based on diagnosis, monitoring therapy, through identification of alternatives, time-course of clinical and laboratory indices of therapeutic response and adverse effects.
PSO2	To detect, assess, and monitor adverse drug reactions, interpret selected laboratory results of specific disease states, retrieve, analyze, interpret and formulate drug or medicine information. To apply the pharmacoepidemiological methods like drug utilization review, cohort studies, meta-analysis, prescription event monitoring and study on vaccine safety, risk management and drug induced birth defects, pharmacoeconomic evaluation for cost minimization, cost-benefit, cost-effectiveness, and cost-utility evaluations.
PSO3	To improve patient care in performing medication history, interpretations of laboratory data of biological samples, identifying potential-drug related influences of Pharmacotherapy. To contribute for research and progress in higher studies, career, or entrepreneurship.

CHAPTER 3
PROGRAMS & ELIGIBILITY CRITERIA

LIST OF PROGRAMS

S No	Program Code	Name of the Program
1	001	B.Tech-Bio Technology
2	002	B.Tech-Civil Engineering
3	003	B.Tech-Computer Science and Engineering
4	004	B.Tech-Electronics and Communication Engineering
5	006	B.Tech -Electrical and Electronics Engineering
6	007	B.Tech-Mechanical Engineering
7	010	B.Tech-Artificial Intelligence and Data Science
8	011	B.Tech-Computer Science and Information Technology
9	013	B Tech-Electronics and Computer Science
10	014	B Tech-Internet of Things
11	2010	M.Tech-Bio Technology
12	2021	M.Tech-Structural Engineering
13	2022	M.Tech-Construction Technology & Management
14	2024	M.Tech- Geo Technical Engineering
15	2031	M.Tech-Computer Science and Engineering
16	2037	M.Tech- Artificial Intelligence and Data Science
17	2042	M.Tech-VLSI
18	2045	M.Tech-Radar & Communication
19	2046	M.Tech- Internet of Things
20	2071	M.Tech-Thermal Engineering
21	2075	M.Tech-Machine Design
22	2076	M.Tech-Robotics and Automation
23	2077	M.Tech- Electric Vehicle Technology
24	2078	M.Tech-Power Electronics and Power Systems
25	016	Bachelor of Architecture
26	017	Bachelor of Computer Applications

27	018	Bachelor of Pharmacy
28	052	B.Com
29	054	Bachelor of Business Administration
30	057	Bachelor of Arts
31	061	B.Sc (Hons) Agriculture
32	064	BSc Food Technology
33	055	BBA-LLB
34	2018	Pharm D
35	2019	M.Pharmacy
36	2210	M.Sc. (Applied Mathematics)
37	2220	M.Sc. (Physics)
38	2230	M.Sc. (Chemistry)
39	2510	Master of Business Administration
40	2511	Master of Computer Applications

Eligibility Criteria

B. Tech - Bachelor of Technology

S.no	Program	Duration (Years)	Eligibility
1	B.Tech in BioTechnology (BT)	4	10 +2 or equivalent at least 60% in aggregate and 60% and above (or) equivalent CGPA in Group subjects / Physics, Chemistry and Mathematics, (For BT program physics ,chemistry and biology are also eligible **)**
2	B.Tech in Civil Engineering (CE)	4	
3	B.Tech in Computer Science & Engineering (CSE)	4	
4	B.Tech in Electronics and Communication Engineering (ECE)	4	
5	B.Tech in Electrical and Electronics Engineering (EEE)	4	
6	B.Tech in Mechanical Engineering (ME)	4	
7	B.Tech in Artificial Intelligence & Data Science (AI&DS)	4	
8	B.Tech in Computer Science and Information technology (CS&IT)	4	
9	B.Tech in Electronics and Computer Science (ECS)	4	
10	B.Tech in Internet of Things (IOT)	4	

School of Architecture

S.no	Program	Duration (Years)	Eligibility
1	Bachelor of Architecture	5	10+2 or equivalent withJEE- Paper 2 score or NATA score

College of Arts & Science and Humanities

S.no	Program	Duration (Years)	Eligibility
1	Bachelor of Arts (BA)	3	10+2 or equivalent with at least 50% and must have qualified in KL entrance exam
2	Bachelor of Computer Applications (BCA)	3	10+2 or equivalent with at least 50% and must have qualified in KL entrance exam
3	B.Sc Food Technology	3	10+2 or equivalent with at least 55%.
4	Master of Science (M.Sc. Chemistry)	2	Bachelor's degree in science with 55% or Equivalent CGPA with honors / in Chemistry asone of the Course.
5	Master of Science (M.Sc. Applied Mathematics)	2	Any Bachelor's degree with 55% or Equivalent CGPA with honors / in Mathematics as one of the Course.
6	Master of Science (M.Sc. Physics)	2	Bachelor's degree in Science with minimum of 55% marks or equivalent CGPA in Physics as one of the Course.
7	Master of Computer Application (MCA)	2	Bachelor's Degree (Minimum of 3 Years Degree Program), with at least 55% marks or equivalent CGPA (50% in case of SC/ST) from a recognized University

Business School

S.no	Program	Duration (Years)	Eligibility
1	Bachelor of Business Administration (BBA)	3	10+2 or equivalent with at least 50% and must have qualified KL entrance exam.
2	Bachelor of Commerce with Honor's B. Com(H)	3	10+2 or equivalent with at least 50% and must have qualified KL entrance exam
3	Master of Business Administration (MBA)	2	Bachelor's degree with 55% marks or equivalent CGPA and qualified anyone (KLEFBSAT)/ ICET / MAT / CAT / XAT & Personal interview

College of Agriculture

S.no	Program	Duration (Years)	Eligibility
1	B.Sc (Hons) Agriculture	4	10+2 or intermediate with PCMB, PCB, PCM or Agriculture (P - Physics, C - Chemistry, M - Mathematics, B – Biology) from a recognised Board/university

College of Pharmacy

S.no	Program	Duration (Years)	Eligibility
1	Bachelor of Pharmacy (B.Pharm)	4	10+2 or equivalent with at least 60% in aggregate and 50% in PCM / PCB and Qualified in any one EAMCET / NEET / Any State Level Pharmacy Entrance Exams across India
2	PHARM. D	2	10+2 examination with Physics and Chemistry as compulsory subjects along with Mathematics or Biology
3	M. Pharmacy in Pharmaceutics	2	B.Pharmacy with 55% aggregate

College of Law

S.no	Program	Duration (Years)	Eligibility
1	Bachelor of Business Administration and Bachelor of Law (BBA-LLB)	5	10+2 or equivalent with at least 45% in aggregate Any StateLevel Entrance Exams across India

CHAPTER 4

ACADEMIC REGULATIONS

This document supplements the KLEF rules and regulations to assist all students. It is required that every individual must abide by these regulations.

- **Note**: The regulations stated in this document are subject to change or can be relaxed / modified without prior notice at the discretion of the Hon'ble Vice Chancellor.

Terminology

- **Academic Council:** The Academic Council is the highest academic body of the University and is responsible for the maintenance of standards of instruction, education and examination within the University. The Academic Council is an authority as per UGC regulations and it has the right to take decisions on all academic matters including academic research.
- **Academic Year:** It is the period necessary to complete an actual course of study within a year. It comprises of two consecutive semesters i.e., Even and Odd semester.
- **Audited Course:** It is a course of study which has zero credits and has a "Satisfactory" or an "Unsatisfactory" grade.
- **Backlog Course:** A course is considered to bea backlog if the student has obtained a failure grade(F).
- **Basic Sciences:** The courses of foundational nature in the areas of Mathematics, Physics, Chemistry, Biology etc., are offered in this category.
- **Betterment:** Betterment is a way that contributes towards improving the students' grade in any course(s). It can be done by either (a) re-appearing or (b) re-registering for the course.
- **Board of Studies:** Board of Studies (BOS) is an authority as defined in UGC regulations, constituted by Vice Chancellor for each of the department separately. They are responsible for curriculum design and update in respect of all the programs offered by a department.
- Branch of Study: It is a branch of knowledge, an area of study or a specific program (like Civil Engineering, Mechanical Engineering, Electrical and Electronics Engineering etc.)
- **Certificate course:** It is a course that makes a student gain hands-on expertise and skills required for holistic development. It is a mandatory, non-credited course for the award of degree.
- **Change of Branch:** Change of branch means transfer from one's branch of study to another.
- **Compulsory course:** Course required to be undertaken for the award of the degree as per the program.
- **Course:** A course is a subject offered by the University for learning in a particular semester.
- **Course Handout:** Course Handout is a document which gives a complete plan of the course.

It contains the details of the course viz. Course title, Course code, Pre-requisite, Credit structure, team of instructors, Course objectives, Course rationale, Course Outcomes and the relevant syllabus, textbook(s) and reference books, Course delivery plan and session plan, evaluation method, chamber consultation hour, course notices and other course related aspects. In essence, course handout is an agreement between students (learners) and the instructor.

- **Course Outcomes:** The essential skills that need to be acquired by every student through a course.
- **Credit:** A credit is a unit that gives weight to the value, level or time requirements of an academic course. The number of 'Contact Hours' in a week of a particular course determines its credit value. One credit is equivalent to one lecture hour per week or two hours per week of tutorials/ self-learning/ practical/ field work during a semester.
- **Credit point:** It is the product of grade point and number of credits for a course.
- **Credit Transfer:** The procedure of granting credit(s) to a student for course(s) undertaken at anotherinstitution.
- **Cumulative Grade Point Average (CGPA):** It is a measure of cumulative performance of a student over all the completed 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.
- **Curriculum:** Curriculum is a standards-based sequence of planned experiences where students practice and achieve proficiency in content and applied learning skills. Curriculum is the central guide for all educators as to what is essential for teaching and learning, so that every student has access to rigorous academic experiences.
- **Degree:** A student who fulfils all the Program requirements is eligible to receive a degree.
- **Degree with Specialization:** A student who fulfills all the Program requirements of her/his discipline and successfully completes a specified set of Professional elective courses in a specialized area is eligible to receive a degree withspecialization.
- **Department:** An academic entity that conducts relevant curricular and co-curricular activities, involving both teaching and non-teaching staff and otherresources.
- **Detention in a course:** Student who does not obtain minimum prescribed marks in continuous in-semester evaluation and /or minimumprescribed attendance in a course shall be detained in that course.
- **Dropping from the Semester:** A student who doesn’t want to register for the semester should do so in writing in a prescribed format before commencement of thesemester.

- **Elective Course:** A course that can be chosen from a set of courses. An elective can be Professional Elective, Open Elective, Management Elective and HumanitiesElective.
- **Engineering Sciences**: The courses belonging to basic evolutionary aspects of engineering from Mechanical Sciences, Electrical Sciences and Computing like Engineering Mechanics, Data structures, Network Theory, Signal Analysisetc...
- **Evaluation:** Evaluation is the process of judging the academic work done by the student in her/his courses. It is done through a combination of continuous in-semester assessment and semester end examinations.
- **Grade:** It is an index of the performance of the students in a said course. Grades are denoted by alphabets.
- **Grade Point:** It is a numerical weight allotted to each letter grade on a 10 - point scale.
- **Honors Degree:** A student who fulfills all the Program requirements of her/his discipline and successfully completes a specified set of additional courses within the same program is eligible to receive an Honors degree.
- **Humanities Elective**: A course offered in the area of Liberal Arts.
- **Industrial Training:** Training program undergone by the student as per the academic requirement in any company/firm. It is a credited course.
- **Industrial Visit:** Visit to a company/firm as per the academic requirement.
- **In-Semester Evaluation**: Summative assessments used to evaluate student learning, acquired skills, and academic attainment during a course.
- **Make-up Test:** An additional test scheduled on a date other than the originally scheduled date.
- **Management elective**: A course that develops managerial skills and inculcates entrepreneurial skills.
- **Minor Degree:** A student who fulfills all the Program requirements of her/his discipline and successfully completes a specified set of courses from another discipline is eligible to receive a minor degree in that discipline.
- **Multi- Section Course:** Course taught for more than one section.
- **Open Elective:** This is a course of interdisciplinary nature. It is offered across the University for All Programs.
- **Over loading:** Registering for more number of credits than normally prescribed by the Program in a semester.
- **Practice School:** It is a part of the total program and takes one full semester in a professional location, where the students and the faculty get involved in finding solutions to real-world

problems. A student can choose Project/Practice School during his/her 7th or 8th semester ofhis/her Academic Year to meet the final requirements for the award of B.Tech degree.

- **Pre-requisite:** A course, the knowledge of which is required for registration into higher level course.
- **Professional Core:** The courses that are essential constituents of each engineering discipline are categorized as Professional Core courses for that discipline.
- **Professional Elective**: A course that is discipline centric. An appropriate choice of minimum number of such electives as specified in the program will lead to a degree with specialization.
- **Program:** A set of courses offered by the Department. A student can opt and complete the stipulated minimum credits to qualify for the award of a degree in thatProgram.
- **Program Educational Objectives:** The broad career, professional, personal goals that every student will achieve through a strategic and sequential action plan.
- **Project:** Course that a student has to undergo during his/her final year which involves the
- student to undertake a research or design, which is carefully planned to achieve a particular aim. It is a credit based course.
- **Supplementary**: A student can reappear only in the semester end examination for the Theory component of a course, subject to the regulations contained herein.
- **Registration**: Process of enrolling into a set of courses in a semester/ term of the Program.
- **Re-Registration:** Student who are detained in courses due to attendance or marks criteria as per their regulation are given a chance to re-register for the same and complete it during the summer term.
- **Semester:** It is a period of study consisting of 15 to 18 weeks of academic work equivalent to normally 90 working days including examination and preparation holidays. The odd Semester starts normally in July and even semester in December.
- **Semester End Examinations:** It is an examination conducted at the end of a course of study.
- **Single Section Course:** Course taught for a single section.
- **Social Service:** An activity designed to promote socialawareness and generate well- being; to improve the life and living conditions of the society.
- **Student Outcomes:** The essential skill sets that need to be acquired by every student during her/his program of study. These skill sets are in the areas of employability, entrepreneurial, social and behavioral.
- **Substitution of Elective course:** Replacing an elective course with another elective course as opted by the student.

- **Summer term:** The term during which courses are offered from May to July. Summer term is not a student's right and will be offered at the discretion of the University.
- **Term Paper:** A 'term paper' is a research report written by students that evolves their course-based knowledge, accounting for a grade. Term paper is a written original research work discussing a topic in detail. It is a credit-based course.
- **Under-loading:** Registering for lesser number of credits than normally prescribed for a semester in that Program.
- **Course Withdrawal:** Withdrawing from a Course means that a student can drop from a course within the first two weeks of the odd or even Semester (deadlines aredifferent for summer sessions). However, s/he can choose a substitute course in place of it by exercising the option within 5 working days from the date of withdrawal.

CHAPTER 5
ACADEMIC ISTRUCTIONS

General Behavior

- Student should communicate in English with faculty and other students while he/ she is in campus.
- Students are expected to wish/greet all officials of the KLEF with due respect.
- Students should be courteous and polite while communicating with all Faculty & staff.
- Students should maintain silence and/or speak in a polite way in and around the classrooms, library, laboratories, and offices of the Deans, Program Chairs, Senior Officials, faculty rooms and corridors of academic buildings.
- It must be noted that shouting, talking in loud voice or in chorus, using indecent, abusive and discourteous language anywhere within the institution premises are considered serious acts of indiscipline and are punishable.
- Students should not loiter during the free time in the university campus.
- Students should not issue any public or press statement, send letters to editors, government, public servants or notaries without prior permission and approval of the Registrar of KLEF in writing.
- Students should keep the status, dignity, prestige and reputation of KLEF high and not engage in anything that might directly or indirectly undermine the standing of the institution.
- Students must always adhere to a prescribed/decent dress code befitting the dignity of a technical/professional student within the campus.
- Ragging of any student is a serious act of indiscipline and has been totally banned by the Hon'ble Supreme Court of India.
- A student found involved in any form of ragging, verbal or physical, inside or outside the institutional campus, hostels, or buses shall be treated as per the anti-ragging rules of the KLEF.
- Students must not be involved in quarreling or fighting or any indecent verbal or physical activity among themselves, or with staff and faculty or visitors.
- Direct or indirect involvement in any such activity will be considered as serious breach of discipline and strict disciplinary action will be taken against the students that engage in such activities.
- Students are not allowed to sit on the steps, boundary walls on the highe rfloors of any building, or engage in gossiping, making noise or any other such activity.

KLEF Working Hours

- KLEF operates between 7:20 AM to 5.00 PM (in shifts) on all weekdays.

Class Environment

The institute is a community of learners. Students have a responsibility of creating and maintaining an environment that supports effective learning to receive effective instructions in classrooms and laboratories. KLEF expects students to conduct themselves in an orderly and cooperative manner by adhering to University Rules & Regulations.

Laboratory Environment

- A conducive learning environment in the laboratory is essential and the students are advised to follow the guidelines mentioned below:
- Always listen carefully to the faculty especially for the safety precautions to take in the laboratories. Accidents resulting in injuries may occur if precautions are nottaken.
- Eating in laboratories is strictlyprohibited.
- Proper dress code is to be followed as prescribed by faculty in eachlab.
- Students should familiarize themselves with the location of all the safety equipment which may be available.
- Follow evacuation procedures quickly and quietly, ifneeded.
- Students should always conduct themselves in a responsible and cautious manner. Risky behaviors such as pushing, running, jumping etc., are unwarranted.
- Only materials required to complete and record the experiment instructions, (e.g. pencils or graph paper, etc.) should be brought into thelaboratory.
- Equipment must be carefully handled to prevent breakage or damage, otherwise appropriate penalties/disciplinary-actionmaybelieved/imposed.
- Lab station must be cleaned prior to leaving a lab.
- Any accident, no matter how small or big, must be reported to the concerned facultyimmediately.

Registration Process

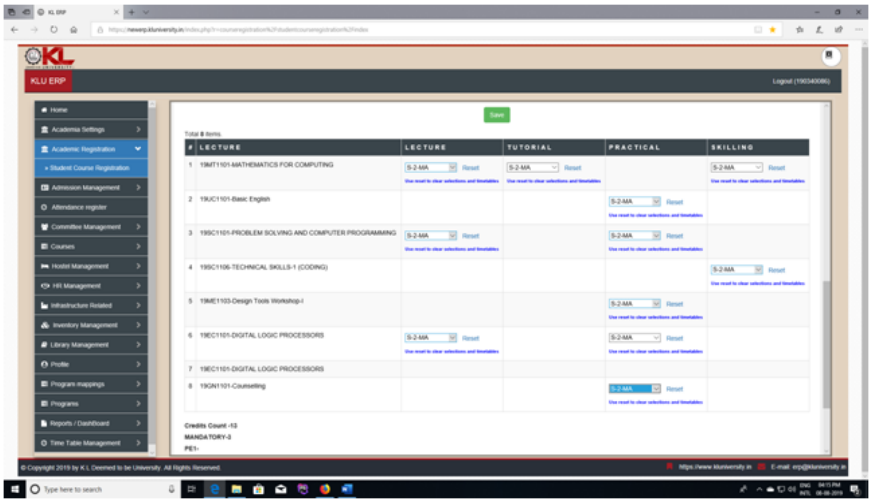
- For every course, the student mustundertake the registration process prior to commencement of the coursework, based on the following conditions.
- Registration into a course will be permitted only for such courses, which are offered by KLEF in thatsemester.
- A student must clear the pre-requisite(s) if any, to register intoacourse.
- KLEF reserves the right toregister.
- Registration for add/drop/change of a course will be permitted only within one week from

the scheduled date of commencement ofclasses.

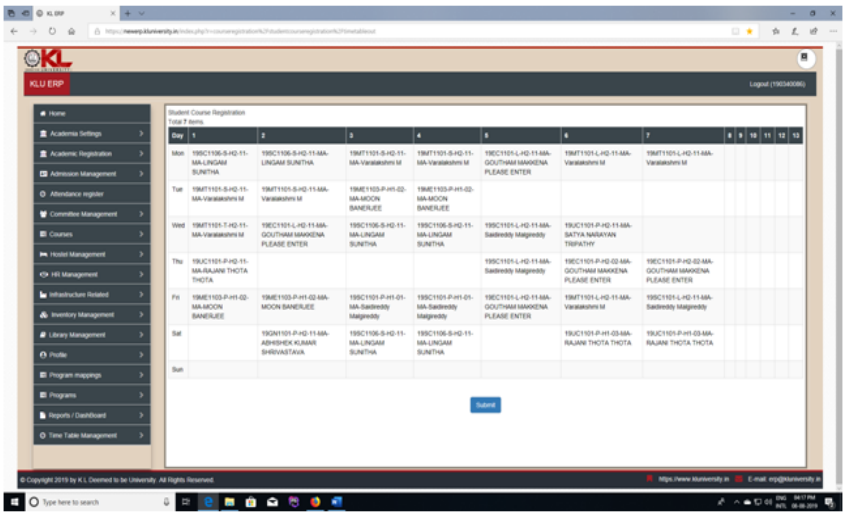
- Students can register up to a maximum of 32 credits of their choice in a semester to meet their programrequirements.
- Students, who wish to register for additional credits through Overloading or less credits through Under loading, mustseek prior permission from Dean- Academics.
- Students who have opted for minor degree, Honors degree, can register for a greater number of creditsina semester throughOverloading (subjected to guidelines appropriate to compliance on eligibility) .
- KLEF reserves the right to withdraw within one week of the commencement of the semester any elective course offered, if adequate number of students have not registered or for any other administrative reasons. In such cases, the students are permitted to register for any other elective course of their choice provided they have fulfilled the eligibility conditions.
- KLEF reserves the right to cancel the registration of a student from a course or a semester or debar from the degree on disciplinary / plagiarism grounds.
- A student is solely responsible to ensure that all conditions for proper registration are satisfied. If, there is any clash in the timetable, it should be immediately brought to the notice of the Department Year coordinator for necessary corrective action. The registration may be cancelled for a course or the entire semester either by KLEF if any irregularity is found at a laterstage.

Student Course Registration Process:

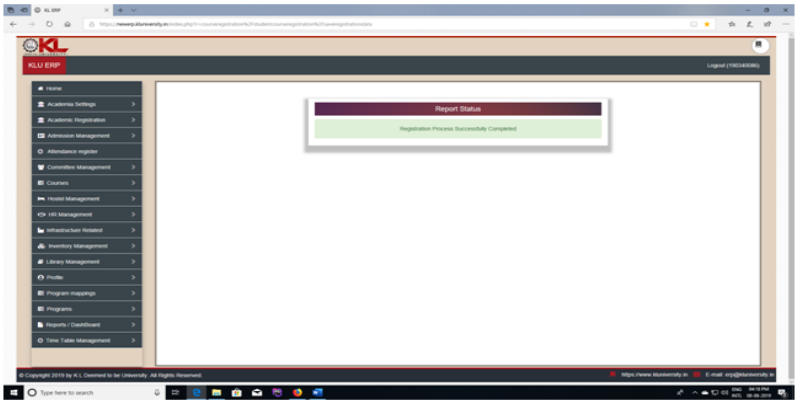
- To complete the student registration, student login to new ERP portal with their valid login credentials.
- After login student should click on Academic Registrations Student Course Registration. Now Student can view the courses and sections in dropdown menus.
- Student can select the sections against the courses on their own choice as mentioned in the following screen shot.
- Student can view the timetable on top of the selection of each course and section.



After completing the selection student need to click on Save to save the timetable, it will be directed to the following screen shot



After duly verifying the timetable student needs to click on Submit to complete the Registration process



After Clicking the Submit the above screen will be displayed and contains the message “Student Registration Successfully Completed”.

CHAPTER 6
REQUIREMENTS FOR THE AWARD OF DEGREE

For B.Tech. Programs:

The student is awarded a B.Tech. degree provided she/he

- Must successfully earn a minimum of 160-170 credits, as stipulated in the program structure.
- Must successfully undertake specific training in focused areas that enable students to be successful in their chosen career tracks. The focused areas are: (a) Employment in MNCs, (b) Civil Services (c) Higher Studies (d) Research and (e) Entrepreneurship.
- Must successfully complete Minimum three (3) certificate courses (four (4) in case of CSE, CSIT and AI&DS students) in discipline domain areas, in addition to one from yoga / sports & games / fine arts.
- Must successfully complete Social Internship and Technical Internship.
- Must have successfully obtained a minimum CGPA of 5.25 at the end of the program.
- Must have finished all the above-mentioned requirements in less than twice the period mentioned in the Academic structure for each program, which includes deceleration period chosen by the student, deceleration imposed by KLEF or debarred from the KLEF.

Academic Flexibilities offered to students:

Major Flexibilities:

- **Honors degree** can be awarded if students complete additional courses from their core program and earn 20 extra credits or Students may acquire 20 credits extra by doing advanced courses.
- **Honors through Research degree** offers students the chance to explore their chosen field of study in greater depth, cultivate valuable research skills, and make meaningful contributions to their specific area of interest. Students can be awarded this Degree upon fulfilling the requirement of earning an additional 20 credits through advanced coursework. The breakdown of these credits includes 10 credits from core courses, 4 credits from a skill development course, and 6 credits from project work.
- **Honors through Innovation** emphasize the exploration of innovative ideas, problem-solving, and creative thinking within a particular field of study. It may provide opportunities for students to engage in innovative projects, research, or entrepreneurial activities. Students can be awarded their degree upon successful completion of additional courses from their core program and earning an extra 20

credits through advanced coursework. Specifically, this entails completing 10 credits from core courses, 6 credits from a skill development course, and 4 credits from project work.

- **Honors through Experiential Learning** focuses on hands-on, practical experiences that complement and enhance traditional classroom learning. Students will be eligible for the degree upon the successful completion of additional courses from their core program and the attainment of 20 extra credits through advanced coursework. Specifically, this includes obtaining 10 credits from core courses, 6 credits from a skill development course, and 4 credits from project work.

  Note: For the above said categories, if a student fails to meet the CGPA and SGPA requirements, at any point after registration, s/he will be dropped from the list of students eligible for the specified Degree, then student will receive B.Tech. Degree only. However, such students will receive a separate grade sheet mentioning the additional courses completed by them.

Program Add-ons:

- **Specialization:** Specialization degree can be awarded if student fulfills all the regular degree requirements and completes five professional electives and one skill development course in the same track and earns minimum of 17 credits from the Professional Elective Courses (PEC) category.
- **Minor:** Minor degree can be awarded if student fulfills all the program requirements of their discipline and are successful in completing a specified set of courses from another discipline through which they earn an additional 20 credits are eligible to get minor degree in that discipline.
- **Double Major:** Double Major degree can be awarded if student earns 30 additional credits compared to regular degree to meet the requirements of both majors. However, 42 credits (i.e. 38 from Courses + 4 from Project) must be done from second major stream chosen by the student and the exemptions are given under flexi core and open electives categories.

Table 1.1. Design your own Degree

	No Major **Flexibility**	Major Flexibility **Honors**	Major Flexibility **Honors through Research**	Major Flexibility **Honors through Innovation**	Major Flexibility **Honors through Experiential Learning**
No Program Add-On	B.Tech.	B.Tech. (Honors)	B.Tech. (Honors through Research)	B.Tech. (Honors through Innovation)	B.Tech. (Honors through Experiential Learning)
Program Add-On **Specialization**	B.Tech. with Specialization	B.Tech. (Honors) with Specialization	B.Tech. (Honors through Research) with Specialization	B.Tech. (Honors through innovation) with Specialization	B.Tech. (Honors through Experiential Learning) with Specialization
Program Add-On **Minor**	B.Tech. with Minor	B.Tech. (Honors) with Minor	B.Tech. (Honors through Research) with Minor	B.Tech. (Honors through Innovation) with Minor	B.Tech. (Honors through Experiential Learning) with Minor
Program Add-on **Double Major**	B.Tech. with Second Major	B.Tech. (Honors) with Second Major	B.Tech. (Honors through Research) with Second Major	B.Tech. (Honors through innovation) with Second Major	B.Tech. (Honors through Experiential Learning) with Second Major

Note: B.Tech. students are required to refer Annexure-1 for detailed information regarding the degree requirements (credit requirements, evaluation targets, outcome requirements) associated with the various flexibilities they choose from the above Table 1.1.

B.Tech Degree with specialization is offered in the following areas:

S.No.	Name of the Specialization
1	Agri Biotechnology
2	Artificial Intelligence & Intelligent Process Automation
3	Automotive Electronics & Autosar
4	Autonomous Systems
5	Bioinformatics
6	Bio-Medical Instrumentation
7	Cloud & Edge Computing
8	Computer Communication & 5g Technology
9	Construction Technology and Management
10	Cross Platform Development Frameworks
11	Cyber Physical Systems & Iot
12	Cyber Security & Blockchain Technology
13	Data Communications
14	Data Science & Big Data Analytics
15	Distributed Ledger Analytics
16	Embedded Systems
17	E-Mobility Engineering
18	Energy Engineering & Computational Fluid Dynamics
19	Engineering Design
20	Environmental Engineering
21	Game Development & Ux Design
22	Genetic Engineering
23	Geo-Spatial Data Analytics
24	Geotechnical & Transportation Engineering
25	Green Energy Technologies
26	Healthcare Data Analytics
27	Industrial Automation
28	Industrial Biotechnology
29	Intelligent Multimedia Processing
30	IOT Analytics
31	Management Information Systems
32	Medical Biotechnology
33	RF & Microwave
34	Robotics & Automation
35	Smart Grid Technology
36	Smart Manufacturing
37	Social & Digital Media Analytics
38	Software Modelling & Devops
39	Structural Engineering
40	VLSI
41	Water Resource & Environmental Engineering

B.Tech Degree with Minors is offered in the following areas

Sno	Department	Minor Degree Name
1	AI & DS	Minors in Artifical intelligence
2	AI & DS	Data Science
3	Architecture	Sustainable Architecture
4	Architecture	Interior Design
5	B.Sc VC	Film Making
6	B.Sc VC	Animation
7	Biotechnology	Biotechnology
8	Biotechnology	Bioinformatics
9	BSc HM	Hotel Management
10	Chemistry	Instrumental Methods
11	Civil	Infrastructure Management
12	Commerce	Minors in Commerce
13	CS & IT	Minor Degree in CS & IT
14	CSA	Computer Science
15	ECE	Embedded Systems and IoT
16	ECE	VLSI
17	ECE	Space Technologies
18	ECE	Electronics and Communication
19	ECS	Web Design
20	ECS	Internet of Things
21	ECS	Embedded Systems
22	EEE	Portable Power Supplies
23	EEE	Green Energy System
24	EEE	Cyber Physical Systems
25	EEE	Electric vehicles
26	EEE	Smart Electric Grid
27	IOT	IOT
28	Law	Law
29	Mathematics	Mathematics
30	MBA	Marketing and Organization Management for Engineers
31	Mechanical Engineering	Mechanical Engineering
32	Mechanical Engineering	Robotics & Mechotronics
33	Mechanical Engineering	Computational Fluid Dynamics
34	Physics	Applied Physics
35	BBA	Accounting and Finance for Engineers
36	BA	Public Adminstration

Degree Requirements for UG and PG programs																		
Name of the program	**Professional Elective courses credits**	**Skill Development Courses credits**	**Open Electives credits**	**Management Elective credits**	**Foreign Language Elective credits**	**No. of Certificate courses in domain**	**No. of Certificate course on yoga /sports/finearts**	**Internships / Practice School / Projects / Term Paper credits**	**Studio / Clinical credits**	**Honors credits**	**Specialization credits**	**Humanities & Social Sciences Courses credist**	**Basic Sciences Courses credits**	**Engineering Sciences Courses credits**	**Professional Core Courses credits**	**Flexi – Core Courses credits**	**Total Credits / Total Courses***	**Minimum CGPA / Percentage**
Bachelor of Architecture	26	11	5	-	0	-	-	26		-	-			63	147		278	5.5
Bachelor of Arts	68	7						18		38		14	2		54		125	5.25
BCA	16	70	9					16				8			66		120	5.25
BBA	18	21	3		0						7	8	2		29		144	5.25
B.Com (H)	40	33			2							16	5		84		149	5.25
B.Tech.	14	6	9	3	2	3-4	1	13-19		20	5	22	23-27	22-31	34 - 47	9	164 - 175	5.25
B.Pharm	8	2	9					6				11	10		186		232	5.0
B.Sc.(Hons.) Agriculture	9											9			170		188	5.0
B.Sc. (Food Technology)	16		9		3	2		13				10			67		120	5.25
B.Sc. Animation & Gaming	16		9		3	2		13				10			67		120	5.25
BBA-LLB	8	25		39					18			10			116		216	5.0
M.Sc. (Chemistry)	9							6				4			82		101	5.25
M.Sc. (Applied Mathematics)	12	1	0	0				15				4			62		94	5.25
M.Sc. (Physics)	9							10				4			76		99	5.25
MBA	30							15				6	7		46		104	5.25
M.Tech	12							42				32					84	5.25
M.Pharm		19						30							48		97	5.0
Pharm.D						3											49*	50%
MCA	17							10				2			51		80	5.25

CHAPTER 7

PROGRAM CURRICULUM

For an academic program the curriculum is the basic framework that will stipulate the credits, category, course code, course title, course delivery (Lectures / Tutorials / Practice / Skill / Project / Self Study / Capstone Design etc.), in the Choice Based Credit System. However, all such are essentially designed, implemented and assessed in Outcome Based Education Framework.

7.1 Program Structure

An Academic Year is made of two semesters each is of, approximately 16±1 week duration and each semester is classified as:

Odd Semester (July–December)

Even Semester (December –May).

KLEF may offer summer term between May and June.

All courses are offered under three categories vis-à-vis. even, odd and dual semester courses.

Students have the flexibility to choose courses of their own choice prescribed by the KLEF.

From 3rd Semester onwards a student can register for a maximum of 30 credits, other than audited and certificate courses per semester. This is not applicable when student exercises the overloading option (while doing project work / practice school / Minor degree / Honors degree program / specialization).

Every course has a Lecture -Tutorial/Studio-Practice-Skill (L-T/ST-P-S) component attached to it.

Based upon the L-T-P-S structure the credits are allotted to a course using the following criteria.

- Every Lecture / Tutorial hour is equivalent to one credit.
- Every Practical hour is equivalent to half credit.
- Every skill-based practice hour is equivalent to quarter credit.
- If the calculated value of credit is a fraction, it is rounded to the next integer.
- Every (ST) Studio hour is equivalent to one and a halfcredit.

Audit Courses

Any course offered in the University that has no assessment of student performance and no grading.

Induction Courses:

Student who gets admitted into B.Tech. program mustcomplete a set of Induction courses for a minimum period of 3 weeks and obtain a "Satisfactory" result prior to registering into 1st Semester of theProgram.

Value-Added courses:

Courses leading to global certification and those which are conducted exclusively for employability are referred to as value added courses. Though "Satisfactory" completion of value added courses doesn't acquire any credit but they are part of the graduation requirements. Refer Section 3.1 for list of Value-addedcourses.

Bridge Courses:

Courses which are required to bridge the continuity among the Basic sciences/Engineering Sciences/professional courses (both core and electives) and are identified through gap analysis carried out using feedback obtained from various academic stakeholders are termed as Bridge Courses. These courses also do not yield any credits but require a "Satisfactory" result to register into the attached professional courses.

7.2 Course Precedence

The following are the guidelines for registering into courses with pre-requisites.

- Every course may have one or more of its preceding course(s) as pre- requisite(s).
- To register for a course, the student must successfully be promoted in these course(s) earmarked as pre-requisite(s) for thatcourse.

7.3 Summer Term Courses

KLEF offers summer term courses during May and June. The following are the guidelines to register in to courses offered in Summer Semester.

- A student may register for course/s in each summer term by payingthestipulated fee.
- Students registering for more than one (1) summer course must ensure that there is no clash inthe time table.
- A student can register into a detained course or a not-registered course (course offered in regular semester, but student failed to register due to the non- compliance of pre-requisite condition but has paid the fee.) A student can also register for other than the above two mentioned categories of courses only if they are permitted foracceleration.
- In any case, a student can register only for a maximum of 12 credits during summer term.
- Attendance & Promotion policy for summer term is same as compared to the regular

semester except for condonation policy. Condonation is not applicable for summer termcourses.

7.4 Practice School

The Practice School (PS) program forms an important component of education at KLEF. It is an attempt to bridge the gap between an academic institution and the industry. The Program, which would be a simulation of real work environment, requires the students to undergo the rigor of professional environment, both inform and in substance. In the process, it provides an opportunity for the students to satisfy their inquisitiveness about the corporate world provides exposure to practicing professional skills and helps them acquire social skills by being in constant interaction with the professionals of an organization. During Practice School, some of the students may be offered stipend and/or job offer as per the discretion of the concernedindustry.

7.4.1 Practice School Duration

Practice School is offered usually for a period of one semester. Should the need be, a student may put a request through the organization and the Head of the Department to the Dean Academics requesting for extension of the duration.

7.4.2 Eligibility:

For B.Tech Program

- Students who have not registered with placement (IRP) can only apply for PS- 1 in (VIIsemester).
- Students who have registered with placement (IRP) and after getting placement will be allowed in PS-2 (VIIIsemester).

For remaining UG & PG Programs other than B.Tech

- As per the academic program eligibility, the final year students are only eligible to register for Practice School over the period of one /two semesters.

7.4.3 Guidelines

The following guidelines are followed attending Practice-School.

- Practice School program carries six credits for a semester. Therefore, it involves substantial effort and requires seriousness, commitment and dedication from the students. One has to hard work for good experience and better placement opportunities. Students must be disciplined, hardworking and possess attitude to undergo On the Job Training (OJT).
- Students must abide by the rules and regulations of the company and the University.
- Practice School is not mandatory for the students. However, Practice School experience enhances the opportunities forplacement.
- Circular will be sent regarding schedule of the selections as and when a company is visiting the campus. Interested students shall attend the selection process for thecompanies.
- The students who were not selected by the companies in the campus will be allotted a

company by the Director, Practice School. Allotment of company is done based on the CGPA of the students and the availability of vacancies in the companies of their relevant branch ofengineering.

- Students who have submitted the Registration-cum-Data Form will not be guaranteed opportunity to attend the Practice School. The number of students sent to the practice school purely depends on the number of vacancies byvarious companies.
- At the time of allotment of companies, the students should be ready for opting companies in any location (Hyderabad, Bengaluru, Vizag, Chennai and Vijayawada etc.) depending on the availability of the vacancies in their respective branches. Once thestudents are selected by a company or allotted to a company, they shall not be allowed either to change company or to cancel the practice school program.

7.5 Award of Degree

B.Tech, M.Tech, all B.Sc and M.Sc , B.A, B.Com, BBA,MBA, BCA, MCA:

A student having cleared all the courses and met all the requirements for the award of degree with

a. 5.25 ≤ CGPA < 5.75 will be awarded Pass class
b. 5.75 ≤ CGPA < 6.75 will be awarded Second class
c. 6.75 ≤ CGPA < 7.75 will be awarded First class
d. CGPA ≥ 7.75 will be awarded First class with Distinction provided the student has cleared all the courses in first attempt and must have fulfilled all the program requirements within the specified minimum yearsduration.

BBA-LLB:

a. 5.0 ≤ CGPA < 5.5 will be awarded Pass class
b. 5.5 ≤ CGPA < 6.5 will be awarded Second class
c. 6.5≤ CGPA < 8.0 will be awarded First class
e. CGPA ≥ 8.0 will be awarded First class with Distinction.

B.Pharmacy & M.Pharmacy:

a. 5.0 ≤ CGPA ≤ 5.99 will be awarded Second class
b. 6.0≤ CGPA ≤ 7.49 will be awarded First class
c. CGPA ≥ 7.5 will be awarded First class with Distinction.

Bachelor of Architecture:

a. 5.5 ≤ CGPA ≤ 5.99. will be awarded Second class
b. 6.0 ≤ CGPA ≤ 7.49 will be awarded First class
c. CGPA ≥ 7.5 will be awarded First class with Distinction

BSc.(Hons) Agriculture:

OGPA	
5.000 – 5.999	Pass
6.000 – 6.999	II division
7.000 – 7.999	I division
8.000 and above	I division with distinction

CHAPTER 8
ATTENDANCE CRITERIA

8.1 Attendance Rules

The following Attendance Policy for promotion of every course

S.No.	Program	Minimum Attendance % required in a course for promotion in that course
1	All Programs except BBA-LLB	85
2	BBA-LLB	65

The student must maintain a minimum attendance of 85% for all programs, except for BBA-LLB which is 65%, in every course. In case of medical exigencies, the student/parent should inform the principal within a week by submitting necessary proofs and in such cases the attendance can be condoned up to an extent of 10%. by Principal on the recommendation of the Head of the Department.

1. Attendance in a course shall be counted from the date of commencement of the classwork.

2. Attendance for the students who are transferred from other institutes and for new admissions, attendance must be considered from the date of her/hisadmission.

3. In case of attendance falling marginally below 75% for all programs (for BBA-LLB is 65%) due to severe medical reasons or any other valid reasons, the Principal/Program chair may bring such cases, along with valid and adequate evidence, to the notice of the Dean Academics. The condonation board formed by Vice-Chancellor under the chairman ship of Dean-Academics will consider any further relaxation in attendance from the minimum attendance percentage requirement condition after going through case bycase.

8.2 Attendance based Marks

There are no specific marks attached to attendance as such, however, if the Course Coordinator of a course desires to award certain marks, for attendance in a course, She/he can do so based on following guidelines, which thereby must be clearly reflected in the respective course handouts which should duly be approved by the Dean Academics. For any course, not more than 5% marks can be allotted for attendance.

For BBA- LLB the distribution of marks, if the attendance percentage is>76 is 1 mark, >81 is 2 marks. >86 is 3 marks, >91 is 4marks and >96 is 5 marks, otherwise 0 marks.

For all other programs the distribution of marks for attendance is [85, 88] = 1 marks, [89,91]=2marks, [92,94]=3marks, [95,97]=4marks and [98,100]=5marks, below 85%, even in case of condonation,"0" marks.

The marks, if allotted for attendance will have to be considered for all L-T/ST-P-S components of a course cumulatively but not specifically for theory component for any course.

8.3 Attendance Waiver

Students maintaining a CGPA ≥ 9.00 and SGPA ≥ 9.00 in the latest completed semester get a waiver for attendance in the following semester. Students who thus utilize an attendance waiver will be awarded the marks allocated for attendance (if any) based on their performance in an advanced assignment specified by the course coordinator (emerging topics related to the course). S/he can appear in all assessments and evaluation components without being marked ineligible due to attendance-based regulations.

8.4 Attendance Condonation for Participation in KLEF / National / International Events

Only those students nominated/sponsored by the KLEF to represent in various forums like seminars/conferences/workshops/competitions or taking part in co- curricular/ extra- curricular events will be given compensatory attendance provided the student applies in writing for such a leave in advance and obtain sanction from the Principal basing on the recommendations of the Head of the Department (HoD) for academic related requests; or from the Dean Student Affairs for extra-curricular related requests. For participation in the KLEF's placement process the names of students will be forwarded by the placement cell in-charge to the respective Heads of the Departments.

Students participating in KLEF/National/International events like technical fests, workshops, conferences etc., will be condoned for 9 instructional days per semester, and in Entrepreneurship related activities a maximum of 18instructionaldays per semester. This condonation is not applicable for summer term.

8.5 Eligibility for appearing in Sem –End Examination

A Student registered for a course and maintained minimum attendance of 85% (except BBA LLB) is eligible to write the Semester-End Examination for that course unless found ineligible due to one or more of the following reasons:

- Shortfall of attendance
- Acts of indiscipline
- Withdrawal from a course

8.6 Absence in Assessment & Examination

If a student fails to take any formative assessment component (due to ill-health or any valid reason), no second chance will be given, and zero marks will be awarded for the same. In cases of excused absence, the instructor may provide an opportunity to the student to reappear in quizzes or assignments or any other internal assessment criteria based on the approval from the principal & the concerned Head of the Department in written.

If a student fails to write Sem-In Exam-I or obtained less than 50% marks in Sem-In Exam-I, he must attend remedial classes and maintain a minimum 85% of attendance in remedial classes to be eligible for Make-up test for Sem-In exam-I. The marks scored in such remedial makeup will be considered. Further, the number of remedial classes to be conducted shall be 50% of regular classes held till the SEM-In exam-I. However, there is no make-up test for Sem-In Exam-II or for the Laboratory exams.

A student's absence for a Sem-In Exams under the following circumstances are only considered for makeup test:

Pre-approved participation in University/State/National/International co- curricular and extra-curricularactivities

Ill health and medical emergencies for the student leading to hospitalization with certification by the doctor stating inability of student to attend Sem-In exams clearly within the necessarydates.

Death of immediate familymember

8.7 Remedial Classes:

The following categories of students are recommended to attend Remedial classes:

- Students who did not attend or obtain a minimum of 50% marks in the Sem-In exam1
- Students those for whom CO1/CO2 is (are) not attained in Sem-In Exam 1
- Any other student may also be permitted to attend remedial classes as per the discretion of the Principal.

The following are the guidelines to conduct remedial classes:

- Remedial classes which are scheduled to be conducted usually one- or two- weeks post conclusion of Sem-In exam1.
- The number of remedial classes to be conducted shall be 50% of regular classes held till the Sem-In exam-I.
- Remedial classes MUST NOT be scheduled during regular class work hours.

The following Active learning Methods (ALMs) are recommended for slow learners:

- One minute paper
- Think/Plan/Share
- Role play
- Focused listening and Listening for specifics
- Just-in time teaching
- Models
- Sheets
- Hands onactivity

Course coordinators may also include alternate ALMs based on the course being taught.

CHAPTER 9

ASSESSMENT & EVALUATION PROCESS

The assessment in each theory subject consists of two Sem-In Exams (Sem-in Exam-I and Sem-In Exam -II), in-class quizzes/tutorials/home-assignments/Active Learning Methods (continues assessment), and the Semester-End Examination (SEE). The distribution of weightage for each assessment step is listed below. The distribution of internal marks in the table below is only a guideline. Instructors at their discretion may apportion some marks for attendance beyond 75%. In such cases, the marks shown for quizzes and assignments will be accordingly beadjusted. Students are advised to refer the course handout to get more detailed information onassessment.

a. The Sem-In tests and the Semester-End Examinations will be conducted as per the Academic Calendar.

b. As per the necessity, the Supplementary examinations will be conducted at the discretion of Dean Academics with the approval of the Vice-Chancellor.

c. Students may have to take more than one examination in a day during Sem-In exams, Semester-End Examinations /Supplementaryexaminations.

9.1 Semester-In Evaluation

The following guidelines are followed for the Semester-In evaluation.

- The process of evaluation is continuous throughout the semester.
- The distribution of marks for Semester-In evaluation is 60% of aggregate marks of the course for all the programs except B.Arch. (50%), B.Pharmacy (25%) & BBA-LLB (40%).

Sl No.	College / School Name	Semester-In Evaluation (Weightage %) (A)	Sem End Examination (Weightage %) (B)	Minimum requirement for pass %	
				(A+B)	B
1	School of Architecture (B.Arch)	50	50	50	50
2	College of Pharmacy (B.Pharm)	25	75	50	50
3	College of Law (BBA- LLB)	40	60	40	40
4	For all other Programs	60	40	40	40

a. The distribution of weightage for various evaluation components are decided and notified by the course coordinator through the course handout after approval by the Dean Academics, prior to the beginning of the semester.

b. In order to maintain transparency in evaluation, answer scripts are shown to the students for verification, within one week of conduct of exam. If there is any discrepancy in evaluation, the student can request the course-coordinator to re-evaluate.

c. The solution key and scheme of evaluation for all examinations are displayed by the Course-Coordinator in the appropriate web portal of the course, on the day of the conduct ofexamination.

d. In case the student is unable to appear for any evaluation component owing to hospitalization, participation in extra/ co-curricular activities representing KLEF/ state/

country; the Dean Academics can permit to conduct of re- examination for suchstudents.

e. In case a student has missed any of the two in-semester evaluations, S/he is eligible for and will be provided with an opportunity of appearing for re- examination.

9.2 Semester End Examination

a. The pattern and duration of such examination are decided and notified by the Course Coordinator through the Course handout, after approval from the Dean Academic.
b. To maintain transparency in evaluation, answer scripts are shown to the students for verification. If there is any discrepancy in evaluation, the student can request the Controller of Examinationsto re-evaluate.
c. If a student earns F grade in any of the courses of a semester, an instant supplementary exam (for only Semester End Exam component) will be provided within a fortnight of the declaration of the results.

9.3 Assessment of Project/Research-Based Subjects

All project or research-based subjects musthave a defined time-limit for completion. The specific time limits for completion and schedule for monitoring and evaluation of performance of students will be announced each term. The final project report, after getting the plagiarism certificate, only will be considered and evaluated by the panel of examiners. Student project reports must follow the guidelines prescribed by the office of Dean Academics.

9.4 Grading Process

At the end of all evaluation components based on the performance of the student, each student is awarded based on absolute/relative grading system. Relative grading is only applicable to a section of a course in which the number of registered students is greater than or equal to 25. Choice of grading system is decided by the Course-Coordinator with due approval of Dean Academics and is specified in the coursehandout.

9.4.1 Absolute Grading

The list of absolute grades and its connotation are given below:

B.Tech., B.Sc., BBA, BCA, B.Com:

Performance	Letter Grade	Grade Point	Percentage of marks
Outstanding	O	10	90 - 100
Excellent	A+	9	80 - 89
Very Good	A	8	70 - 79
Good	B+	7	60 - 69
Above Average	B	6	50 - 59
Average	C	5	46 - 49
Pass	P	4	40 - 45
Fail	F	0	0 – 39
Absent	AB	0	Absent

M.Tech., M.Sc., M.A., MCA, MBA:

Performance	Letter Grade	Grade Point	Percentage of marks
Outstanding	O	10	90 - 100
Excellent	A+	9	80 - 89
Very Good	A	8	70 - 79
Good	B+	7	60 - 69
Above Average	B	6	50 - 59
Fail	F	0	0 – 49
Absent	AB	0	Absent

B.Arch.:

Performance	Letter Grade	Grade Point	Percentage of marks
Outstanding	O	10	90 - 100
Excellent	A+	9	80 - 89
Very Good	A	8	70 - 79
Good	B+	7	60 - 69
Above Average	B	6	56 - 59
Pass	P	5	50 - 55
Fail	F	0	0 – 49
Absent	AB	0	Absent

B.Pharmacy, M.Pharmacy:

Performance	Letter Grade	Grade Point	Percentage of marks
Outstanding	O	10	90 – 100
Excellent	A	9	80 – 89
Good	B	8	70 – 79
Fair	C	7	60 – 69
Average	D	6	50 – 59
Fail	F	0	Less than 50
Absent	AB	0	Absent

B.Sc. (Honors) Agriculture:

- The evaluation is done on a 10-point scale.
- 10 point = 100 marks.
- The percent of marks in a subject will be divided by 10 to obtain the grade point

9.4.2 Relative Grading

The following table lists the grades and its connotation for relative grading:

Letter Grade	Grade Point	Grade Calculation
O	10	total marks >= 90% and total marks >= mean + 1.50σ
A+	9	μ+0.50σ <= total marks < μ+1.50σ
A	8	μ <= total marks < μ+0.50σ
B+	7	μ-0.50σ <= total marks < μ
B	6	μ-1.00σ <= total marks < μ-0.50σ
C	5	μ-1.25σ <= total marks < μ-1.00σ
P	4	μ-1.50σ <= total marks < μ-1.25σ or ≥40
F	0	total marks <μ-1.50σ or total marks <=39
AB	0	Absent

μ is the mean mark of the class excluding the marks of those students who scored ≥ 90% and ≤ 40% after rounding the percentages to the next highest integer. σ is the standard deviation of the marks.

BBA-LL.B. (Relative Grading):

Performance	Letter Grade	Grade Point
Excellent	X	10
Very Good	A	9
Good	B	8
Fair	C	7
Satisfactory	D	6
Pass	E	5
Fail	F	0
Absent	AB	0

9.5 SGPA &CGPA

The SGPA is the ratio of sum of the product of the number of credit s with the grade points scored by a student in all the courses and the sum of the number of credits of all the courses undergone by a student, in a semester.

Where 'Ci' is the number of credits of the i^{th} course and *'Gi'* is the grade point scored by the student in the i^{th} course.

The CGPA is also calculated in the same manner considering all the courses undergone by a student over all the semesters of a program, where 'Si' is the SGPA of the i^{th} semester and *'Ci'* is the total

number of credits in that semester.

- The SGPA and CGPA shall be rounded off to 2 decimal points and reported in the transcripts.
- CGPA can be converted to percentage of marks: 10 X CGPA -7.5
- A student appearing for a course having lab integrated with theory and in case obtains less than 40% in either of lab or theory component of semester end examination, and in such case the student must reappear for the component only in which he has secured less than 40%. Till successful attainment of minimum 40% of both components, the student remains in the F grade for that course.
- Audit/Certificate courses are graded as satisfactory (S) or non- satisfactory (NS) only.
- At the end of each semester, the KLEF issues a grade sheet indicating the SGPA and CGPA of the student. However, grade sheets will not be issued to the student if he/she has any outstanding dues.

9.5.1 Illustration of Computation of SGPA and CGPA

Computation of SGPA and CGPA Illustration for SGPA

COURSE	CREDITS	GRADE LETTER	GRADE POINT	CREDIT POINT (Credit x Grade)
Course 1	**3**	A	**8**	3 X 8 = 24
Course 2	**4**	B+	**7**	4 X 7 = 28
Course 3	**3**	B	**6**	3 X 6 = 18
Course 4	**3**	O	**10**	3 X 10 = 30
Course 5	**3**	C	**5**	3 X 5 = 15
Course 6	**4**	B	**6**	4 X 6 = 24
	20			139

Thus, SGPA =139/20 =6.95

Illustration for CGPA

Item	Semester					
	I	II	III	IV	V	VI
Credits	20	22	25	26	26	25
SGPA	6.9	7.8	5.6	6.0	6.3	8.0

$$CGPA = \frac{(20*6.9+22*7.8+25*5.6+26*6.0+26*6.3+25*8.0)}{(20+22+25+26+26+25)} = 6.73$$

9.6 Betterment

- A student may reappear for semester end examination for betterment only in the theory part of the course for improving the grade, subject to the condition that, the student has passed the course, his/her CGPA is ≤ 6.75 and the grade in the respective course to be equal to or lower than "C". In the case of reappearing for a course, the best of the two grades will be considered.
- A Student can re-register in any course in any semester during the program for improvement of grade if the current grade in the course is lower than B^+ and with due approval from Dean Academics in accordance with academic regulations.
- A student cannot reappear for semester end examination in courses like Industrial Training, courses with their L-T/ST-P-S Structure like 0-0-X-X, Project, Practice School and Term Paper.
- A student is not eligible for award of B.Tech. Degree with Honors, and any Program Degree with distinction, in case s/he takes up the betterment option.

9.7 Course Based Detention Policy

In any course, a student must maintain a minimum attendance as per the attendance policy referred in Chapter 8, to be eligible for appearing in the Sem-End examination. Failing to fulfill this condition, will deem such student to be detained in that course and become ineligible to take semester end exam.

CHAPTER 10

CREDIT TRANSFER & PROMOTION

10.1 Change of Branch:

A student admitted to a particular Branch of the B.Tech. Program will normally continue studying in that branch until the completion of the program. However, in special cases the KLEF may permit a student to change from one branch to another after the second semester, provided s/he has fulfilled admission requirement for the branch into which the change is requested. For all remaining UG /PG programs, the change of branch is notapplicable.

The rules governing change of branch are as listed below:

- Top 1% (based on CGPA until 2nd semester) students will be permittedto change to any branch of their choice within the programdiscipline.
- Apart from students mentioned in clause (a) above, those who have successfully completed all the first and second semester courses and with CGPA ≥ 8 are also eligible to apply, but the change of Branch in such case is purely at the discretion of theKLEF.
- All changes of Branch will be effective from third semester. Change ofbranch shall not be permittedthereafter.
- Change of branch once made will be final and binding on the student. No student will be permitted, under any circumstances, to refuse the change of branchoffered.
- Students in clause a and b may be permitted subject to the availability of seats in the desiredbranch.

10.2 Credit transfer

10.2.1 Credit transfer between KLEF and otherinstitution

A) Credit transfer from other institutions to KLEF or vice versa is permitted only for undergraduateprogram.

B) Credit transfer from KLEF to other institutions: Student studying in KLEF can take transfer to another institution under the followingconditions:

- KLEF has signed MOU with theinstitution.
- However,a student, after seeking transfer from KLEF can return to KLEF after a semester or year. Based on courses done in the other institution, equivalent credits shall be awarded to such students.

C) Credit transfer from another institution to KLEF: A student studying in another institution can take transfer to KLEF under the followingconditions:

- When a student seeks transfer, equivalent credits will be assigned to the student based on the courses studied by thestudent.

- The student, when transferred from other institutions, has to stick to the rules and regulations ofKLEF.
- To graduate from KLEF, a student must study at least half of the minimum duration prescribed for a program atKLEF.

10.2.2 Credit Transfer Through MOOCs:

- Undergraduate students can get credits for MOOCs courses recommended by KLEF up to a maximum of 20% of their minimum credits required for graduation. The discretion of allocation of MOOCs courses equivalent to the courses in the curriculum lies with the office of the Dean Academics.
- A student may also be permitted to obtain 20 credits through MOOCs in addition to the minimum credits required for graduation. These 20 credits can also be utilized to acquire a Minor degree or an Honors degree if the courses are pronounced equivalent to those specified for the respective degrees by the office of the Dean Academics. These additional credits through MOOCs if to be considered for CGPA/Minor/Honors degree must be approved by Dean Academics prior to enrollment in the respectiveMOOCs.
- Students acquiring additional credits for Honors/Minor degree must adhere to the rules governing the award of the respective degree, otherwise, a student applying for registering into additional credits through MOOCs must possess a minimum CGPA of 7.5 till that semester.

10.3 Course Credit

A credit is a unit that gives weight to the value, level or time requirements of an academic course. The number of 'Contact Hours' in a week of a particular course determines its credit value. One credit is equivalent to one lecture hour per week or one tutorial hour per week or two hours per week of practical/ field work or four hours per week of skilling or one studio hour is equivalent to 1.5 credit during a semester.

10.4 Promotion Policy

A student shall be eligible for provisional promotion for registration of courses in the next semester subject to the following criterion:

S.No	College Name	Promotion Policy – Year / Semester
1	College of Architecture (B.Arch)	A student shall be eligible for provisional promotion for registration of courses in the next semester subject to the following criterion: A student is eligible for provisional promotion to a higher semester if S/he: • A student shall not be permitted to enroll for the Architectural Design course in a semester unless S/he has completed the Architectural Design course of the previous semester.

		• A student shall not be permitted to enroll for the tenth semester Architectural Design Thesis unless he / she has successfully completed Practical Training/ Practices School / Internship. In case a student is unable to secure minimum P grade for a particular course even after three consecutive attempts, S/he has to repeat the course by re-registration.
2	College of Arts, Humanities & Sciences (BA., BCA, M.Sc Chemistry, M.Sc Applied Mathematics, M.Sc Physics)	Not Applicable
3	Business School (BBA, B.Com(H), MBA)	Not Applicable
4	College of Engineering (B.Tech, M.Tech)	Not Applicable
6	College of Pharmacy (B.Pharm)	1. He/she shall not be eligible to attend the courses of V semester until all the courses of I and II semesters are successfullycompleted. 2. He/she shall not be eligible to attend the courses of VII semester until all the courses of I, II, III and IV semesters are successfully completed. 3. A lateral entry student shall be eligible to carry forward all the courses of III, IV and V semesters till the VI semester examinations. However, he/she shall not be eligible to attend the courses of VII semester until all the courses of III and IV semesters are successfully completed. Any student whohas given more than 4 chances for successful completion of I / III semester courses and more than 3 chances for successful completion of II / IV semester courses shall be permitted to attend V / VII semester classes ONLY during the subsequent academic year as the case may be. In simpler terms there shall NOT be any ODD BATCH for any semester.
7	College of Law (BBA-LLB)	Not Applicable
8	College of Agriculture	Completion of all 1st year courses is mandatory for registration in 3rd year. Completion of all 2nd year courses is mandatory for registration in 4th year

10.5 Re-Evaluation

Students desirous of seeing their Semester-End Examination answer scripts have toapply online to the COE for the same within the timeframe as declared by the COE by paying the prescribed fee. Student applications must be forwarded by the Head of the Department and the Principal of the School and then re-evaluation fees are to be paid. The application along with the attached fee receipt must be submitted to the office of theCOE.

There is no provision for re-evaluation in case of Lab/Practical/skilling exams,

student project, viva-voce exam or seminar/design/mini-project courses.

The final grades awarded to each course shall be announced by the COE and the same will be made available to students through the website/notice boards.

10.6 Academic Counseling Board (ACB)

Academic Counseling Board is constituted by the Dean Academics. This board shall comprise of the Chairman, Convener, Principal/Director, HOD and Professor/Associate Professor. A student will be put under Academic Counseling Board in the following circumstances:

- Has CGPA of less than 6.00.
- Has 'F' grade or 'Detained' in multiple courses.

The first level of Counseling such students will be done by the Mentor of the student and the HoD followed by the ACB and the list of students who have to undergo the ACB counseling be forwarded by the HoD to the Office of Dean Academics.

The students undergoing the Academic Counseling Board process may be allowed to register only for a few courses based on the recommendation of Academic Counseling Board.

10.7 Backlog Courses

A course is considered to be a backlog if the student has obtained 'F' grade in the course.

10.8 Rustication

A student may be rusticated from the KLEF on disciplinary grounds, based on the recommendations of any empowered committee, by the Vice Chancellor.

10.9 Award of Medals

KLEF awards Gold and Silver medals to the top two candidates in each program after successful completion of their study. The medals are awarded based on their CGPA during the Annual Convocation with the following constraints:

a. The grade obtained through betterment/ supplementary will not be considered for this award.

b. S/he must have obtained first class with distinction for the award of Gold or Silver-medal.

CHAPTER 11

STUDENT COUNSELING & FEEDBACK

Counseling:

Student counseling / mentoring service ensures that every student gets to know the academic structure of the University and utilize maximum opportunities that the institute offers to fulfill their career and personal life goals. The objective of "Student Counseling/Mentoring Service" is to provide friendly support to the students for their well-being during their stay in the campus and for their holistic development.

Counselors offer individual counseling to help students resolve personal or interpersonal problems. They may also offer small group counseling to help students enhance listening and social skills, learn to empathize with others, and find social support through healthy peer relationships. Counselors also provide support to faculty by assisting with classroom management techniques and the development of programs to improve quality or safety. When necessary, counselors may also intervene in a disrupted learning environment.

However, the benefits of counselor-student relationships are as follows:

Maintain academic standards and set goals for academic success.

Develop skills to improve organization, study habits, and time management.

Work through personal problems that may affect academics or relationships.

Improve social skills.

Cope with university or community-related violence, accidents.

Identify interests, strengths, and aptitudes through assessment.

Counseling Policy:

Student counseling takes great place in K L University. Counseling is designed to facilitate student achievement, improve student behavior, subject analysis levels, attendance, and help students develop socially, professionals with bachelor's, master's degrees or beyond. Faculty counselors provide counseling and serve an educational role in K L University. We have Mentors, Academic, Career, Physiological, Co-Curricular & Extra Curricular activities counselors in order to support students who are experiencing personal or academic challenges, help students choose careers and plan for university and intervene when students face behavioral, physical, or mental health challenges.

The duties of counselors:

Mentoring:

Plan and design a system for student behavior, mental health and academic challenges, define structural and functional characteristics of the system in detail, plan provisions for academic

mentoring apart from classroom interaction.

Academic Counseling:

Develop a systematic and process-oriented mechanism to improve academic counseling in relation to student attendance, punctuality, performance of students in internal and semester examinations, course / program to be enrolled based on the strength and weakness of the student

Career Counseling:

Conduct personality test (SWEAR) to find suitable career path, Create awareness on the job opportunities, career paths that exist in a specific discipline.

Psychological Counseling:

Organize and strengthen the student counseling services, engage qualified and experienced mentors and advisories for each class of students for providing psychological guidance as required.

Guidance on Co-Curricular & Extra Curricular activities:

Form student clubs to give train and encourages the students to improve their skills, physical fitness and mental strength.

Early intervention:

Counselors receive training about learning difficulties and psychological concerns that commonly manifest in children and adolescents. They may also provide referrals, recommendations, and suggestion to parents about mental health of their wards.

Special needs services:

Counselors often support the special needs of students and may oversee programs that address requirements or learning difficulties.

Counseling Procedures:

The HOD will allot 20 Students once admitted into a program to a faculty with allocation priority commencing from professors and onwards. The faculty concerned will be called a counselor/mentor. One hour per week will be allocated by the departments to enable the counselors to counsel the students on various aspects. The counselor will maintain a separate sheet to record student performance and also different kinds of counseling undertaken.

Counselor shall communicate with parents through mail, SMS and also through telephonic conversations. Student's atteandance, marks, placement etc. data must infrom to parents once in a month. The communication undertaken shall be recorded in a separate register.

The following are the various aspects of counseling that the counselors will address during their interaction.

Mentoring

1. Counselor shall counsel the students regularly when the performance of the student is found be un-satisfactory
2. Form a Student-Teacher-Group to share regular updates and events.
3. Form a Parent-Teacher-Association to share regular updates and events.
4. Conduct the feedback on counseling.
5. The counseling data sheet shall be submitted to the principal for verification and approval.
6. At the end of the semester a summary report and recommendations will be sent to Dean Academics Office

Academic Counseling

1. Counselor shall acquire backlog data and record the same into the counseling sheets
2. Counselor will acquire data about the attendance and performance in the internal evaluation and record them into the counseling data sheet.
3. Counselors shall counsel the students regularly to track the performance of the students
4. The counseling data sheet shall be submitted to the principal for verification and approval.
5. At the end of the semester a summary report will be sent to Dean Academics Office.

Career Counseling

1. Counselor has to take SWEAR analysis data in first year.
2. Counselor shall acquire the data related to performance of the students in all the soft skills and other courses that contributes towards employability/ entrepreneurship/ career advancement the career counseling data sheets.
3. Counselor will acquire data about the attendance and performance of the students during all the placement drives conducted by KLU and records the same into the counseling sheet.
4. Councilors shall counsel the students regularly when the performance of the student is found be un-satisfactory.
5. The counseling sheet shall be verified by principal and corrective actions if any will be recommended to the respective departments.
6. At the end of the semester a summary report will be sent to Dean Academics Office.

Psychological Counseling

1. Counselor shall acquire data pertaining to psychological status of the students and record the same into the counseling sheets
2. Counselor will acquire data about the attendance and performance in the internal evaluation and record them into the counseling sheet and see whether the performance is in any way related.
3. Councilor shall counsel the students regularly when the performance of the student is found to

be un-satisfactory

4. Counselor should identify the need of any therapy required.
5. Once it is identified, the counselor will arrange the treatment according to the psychological status of the student.
6. Counselor should maintain the progression level of the student periodically.
7. The counseling sheet shall be verified by principal and corrective actions if any will be recommended to the respective departments.
8. At the end of the semester a summary report will be sent to Dean Academics Office.

   HODs have to submit monthly /semester / Academic Year Counseling reports with necessary comments and proofs to Dean Academics office duly signed by concerned Principal/Director. Visit following linkhttps://www.kluniversity.in/site/acadboard.htm

Feedback System

At KLEF, monitoring of feedback is a continuous process. Feedback is obtained from students and parents on various aspects. Feedback is taken through personal interaction with students, interaction with parents in addition to mid-semester and end-semester feedback.

The institution assesses the learning levels of the students, after admission and organizes special programs for advanced learners and slow learners.

Feedback Types:

In first year SWEAR analysis is done for every student in such a way it identifies their interests, pre-existing knowledge, aspects to improve technical and logical skills based on their career choice. The following are the different types of feedback taken at regular intervals:

(i). Student General Feedback (Twice in a Sem.)

(ii). Student Satisfaction Survey (Once in a Sem.)

(iii). Student Exit Feedback (Once in a Year)

(iv). Academic Peers Feedback on Curriculum (Once in a Sem.)

(v). Parents Feedback on Curriculum (Once in a Sem.)

(vi). Alumni Feedback on Curriculum (Once in a Sem.)

(vii). Industry Personnel Feedback on Curriculum (Once in a Sem.)

(viii). Student Feedback on Curriculum (Once in a Sem.)

(ix). Faculty Satisfaction Survey (Once in a Sem.)

(x). Parent Teacher Association (Once in a Sem.)

Feedback Procedure:

- General Feedback to be taken from the students on the aspects like Course Contents, Teaching Learning Process, Outcomes, Resources and Evaluation twice in every semester

(Mid semester and End Semester Feedback) in a structured format floated by dean academics office.

- Student Satisfaction Survey (SSS) to all innovative methods and approaches should be recorded at appropriate intervals and the process should be refined based on that. Students should be sensitized on the process and methods and their understanding of the same should be assured.
- Exit survey feedback to be taken from the final year students on the aspects like entrance test, admission process, Course Contents, Teaching Learning Process, Outcomes, Resources and Evaluation, placements etc.
- Structured feedback for design and review of syllabus – semester wise / year wise is received from Students, Alumni, Peers, Parent, Industry Personnel.
- Satisfaction Survey to be taken from the existing faculty on Course Contents, Teaching Learning Process, Outcomes, Resources and Evaluation once in every semester in a structured format floated by dean academics office.
- Parent Teacher Association (PTA) to develop the potential of parents and to strengthen their relationship with their children through planning and conducting a variety of developmental and recreational activities.
- Online Feedback is collected from all the students once at the end of the semester using well designed questionnaire. Informal feedback will be collected in parallel from selected student representatives within 4-5 weeks of commencement of the semester by the Office of Dean Academics.
- HODs have to submit monthly /semester / Academic Year Feedback reports with necessary comments and proofs to Dean Academics office duly signed by concerned Principal/Director. Visit following link https://www.kluniversity.in/site/feedsys.htm

Y22 SOC

CSE, CSIT, AI-DS

(DEEMED TO BE UNIVERSITY)

ANNEXURE - 1

Y22 ACADEMIC STRUCTURE & FLEXIBILITIES FOR BACHELOR OF TECHNOLOGY - SCHOOL OF COMPUTING (CSE, CSIT, AI&DS)

MAJOR FLEXIBILITY / PROGRAM ADD-ON	NO MAJOR FLEXIBILITY			Major Flexibility - HONORS			Major Flexibility - HONORS through RESEARCH			Major Flexibility - HONORS through INNOVATION			Major Flexibility - HONORS through EXPERIENTIAL LEARNING		
	Sl No	Course Category	Min. Credits	Sl No	Course Category	Min. Credits	Sl No	Course Category	Min. Credits	Sl No	Course Category	Min. Credits	Sl No	Course Category	Min. Credits
NO PROGRAM ADD-ON	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18
	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5
	3	ESC	27.5	3	ESC	27.5	3	ESC	27.5	3	ESC	27.5	3	ESC	27.5
	4	PCC	38	4	PCC	52	4	PCC	48	4	PCC	48	4	PCC	48
	5	FCC	9	5	FCC	9	5	FCC	9	5	FCC	9	5	FCC	9
	6	SDC	6	6	SDC	12	6	SDC	10	6	SDC	12	6	SDC	12
	7	PEC	14	7	PEC	14	7	PEC	14	7	PEC	14	7	PEC	14
	8	PRI	14	8	PRI	14	8	PRI	20	8	PRI	18	8	PRI	18
	9	OEC	9	9	OEC	9	9	OEC	9	9	OEC	9	9	OEC	9
	10	VAC	0	10	VAC	0	10	VAC	0	10	VAC	0	10	VAC	0
	11	AUC	0	11	AUC	0	11	AUC	0	11	AUC	0	11	AUC	0
	12	SIL	4	12	SIL	4	12	SIL	4	12	SIL	4	12	SIL	4
	GRAD REQUIREMENTS		**163**	GRAD REQUIREMENTS		**183**	GRAD REQUIREMENTS		**183**	GRAD REQUIREMENTS		**183**	GRAD REQUIREMENTS		**183**
Program Add-On **SPECIALIZATION**	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18
	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5
	3	ESC	27.5	3	ESC	27.5	3	ESC	27.5	3	ESC	27.5	3	ESC	27.5
	4	PCC	38	4	PCC	52	4	PCC	48	4	PCC	48	4	PCC	48
	5	FCC	9	5	FCC	9	5	FCC	9	5	FCC	9	5	FCC	9
	6	SDC	8	6	SDC	14	6	SDC	12	6	SDC	14	6	SDC	14
	7	PEC	17	7	PEC	22	7	PEC	22	7	PEC	22	7	PEC	22
	8	PRI	14	8	PRI	14	8	PRI	20	8	PRI	18	8	PRI	18
	9	OEC	9	9	OEC	9	9	OEC	9	9	OEC	9	9	OEC	9
	10	VAC	0	10	VAC	0	10	VAC	0	10	VAC	0	10	VAC	0
	11	AUC	0	11	AUC	0	11	AUC	0	11	AUC	0	11	AUC	0
	12	SIL	4	12	SIL	4	12	SIL	4	12	SIL	4	12	SIL	4
	GRAD REQUIREMENTS		**168**	GRAD REQUIREMENTS		**193**	GRAD REQUIREMENTS		**193**	GRAD REQUIREMENTS		**193**	GRAD REQUIREMENTS		**193**
Program Add-On **MINOR**	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18
	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5
	3	ESC	27.5	3	ESC	27.5	3	ESC	27.5	3	ESC	27.5	3	ESC	27.5
	4	PCC	38	4	PCC	52	4	PCC	48	4	PCC	48	4	PCC	48
	5	FCC	9	5	FCC	9	5	FCC	9	5	FCC	9	5	FCC	9
	6	MIN	16	6	MIN	16	6	MIN	16	6	MIN	16	6	MIN	16
	7	SDC	10	7	SDC	16	7	SDC	14	7	SDC	16	7	SDC	16
	8	PEC	14	8	PEC	14	8	PEC	14	8	PEC	14	8	PEC	14
	9	PRI	14	9	PRI	14	9	PRI	20	9	PRI	18	9	PRI	18
	10	OEC	9	10	OEC	9	10	OEC	9	10	OEC	9	10	OEC	9
	11	VAC	0	11	VAC	0	11	VAC	0	11	VAC	0	11	VAC	0
	12	AUC	0	12	AUC	0	12	AUC	0	12	AUC	0	12	AUC	0
	13	SIL	4	13	SIL	4	13	SIL	4	13	SIL	4	13	SIL	4
	GRAD REQUIREMENTS		**183**	GRAD REQUIREMENTS		**203**	GRAD REQUIREMENTS		**203**	GRAD REQUIREMENTS		**203**	GRAD REQUIREMENTS		**203**
Program Add-On **DOUBLE MAJOR**	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18
	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5
	3	ESC	27.5	3	ESC	27.5	3	ESC	27.5	3	ESC	27.5	3	ESC	27.5
	4	PCC	38	4	PCC	52	4	PCC	48	4	PCC	48	4	PCC	48
	5	FCC	6	5	FCC	6	5	FCC	6	5	FCC	6	5	FCC	6
	6	MAJOR II	38	6	MAJOR II	38	6	MAJOR II	38	6	MAJOR II	38	6	MAJOR II	38
	7	SDC	6	7	SDC	12	7	SDC	14	7	SDC	16	7	SDC	16
	8	PEC	14	8	PEC	14	8	PEC	14	8	PEC	14	8	PEC	14
	9	PRI	18	9	PRI	18	9	PRI	20	9	PRI	18	9	PRI	18
	10	VAC	0	10	VAC	0	10	VAC	0	10	VAC	0	10	VAC	0
	11	AUC	0	11	AUC	0	11	AUC	0	11	AUC	0	11	AUC	0
	12	SIL	4	12	SIL	4	12	SIL	4	12	SIL	4	12	SIL	4
	GRAD REQUIREMENTS		**193**	GRAD REQUIREMENTS		**213**	GRAD REQUIREMENTS		**213**	GRAD REQUIREMENTS		**213**	GRAD REQUIREMENTS		**213**

(DEEMED TO BE UNIVERSITY)

Y22 ACADEMIC REGULATIONS & EVALUATION TARGETS FOR AWARD OF DEGREES FROM BACHELOR OF TECHNOLOGY - SCHOOL OF COMPUTING (CSE, CSIT, AIDS)

MAJOR FLEXIBILITY / PROGRAM ADD-ON

Y22 {SOC}

CSE
CSIT
AI&DS

PROGRAM ADD-ON	Sl No	REGUL/ EVAL	INDV/ TEAM	Regulation	NO MAJOR FLEXIBILITY		Major Flexibility - HONORS		Major Flexibility - HONORS through RESEARCH		Major Flexibility - HONORS through INNOVATION		Major Flexibility - HONORS through EXPERIENTIAL LEARNING	
					Measure	Min. Requirement	Measure	Min. Requirement	Measure	Min. Requirement	Measure	Min. Requirement	Measure	Min. Requirement
NO PROGRAM ADD-ON	1	REGULATION	INDIVIDUAL	Min Credits	Credits	163	Credits	183	Credits	183	Credits	183	Credits	183
	2		INDIVIDUAL	Min CGPA	CGPA	4.75	8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT	
	3		INDIVIDUAL	SGPA Consistency	NA	NA	All Semesters	8	All Semesters	8	All Semesters	8	All Semesters	8
	3		INDIVIDUAL	Value Added Courses	#Courses	4	#Courses	5	#Courses	4	#Courses	4	#Courses	7
	4		INDIVIDUAL	Audit Courses	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	5		INDIVIDUAL	Audit Courses for Career Enhancement	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	6		INDIVIDUAL	Specialization Stream	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7		TEAM OF 6	Social Internship	#weeks	3	#weeks	3	#weeks	3	#weeks	3	#weeks	3
	8		INDIVIDUAL	Technical Internship	#weeks	4	#weeks	4	#weeks	4	#weeks	4	#weeks	4
	9		INDIVIDUAL	SDC Stream	NA	NA	NA	NA	NA	NA	4 Cr from Entrepreneurship SDC		NA	NA
	10		INDIVIDUAL	Course Modes (Mode A | Mode P)	NA	NA	#Courses (A or P)	8	#Courses (A or P)	5	#Courses (A or P)	5	#Courses (P)	5
	11	EVALUATION	TEAM OF 4	Research Publications	NA	NA	Scopus Journal	1	WoS Journal	3	WoS Journal	1	Scopus Journal	1
	12		TEAM OF 4	Startup Registration	NA	NA	NA	NA	NA	NA	#LLP	1	NA	NA
	13		TEAM OF 4	Patent Filing	NA	NA	NA	NA	NA	NA	#Utility Patent	1	NA	NA
	14		TEAM OF 4	Patent Publishing	NA	NA	NA	NA	#Design Patents	1	#Design Patents	2	#Design Patents	1
	15		TEAM OF 4	Consultancy	NA	NA	NA	NA	NA	NA	NA	NA	#Projects	2
Program Add-On SPECIALIZATION	1	REGULATION	INDIVIDUAL	Min Credits	Credits	168	Credits	193	Credits	193	Credits	193	Credits	193
	2		INDIVIDUAL	Min CGPA	CGPA	6.75	8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT	
	3		INDIVIDUAL	SGPA Consistency	NA	NA	All Semesters	8	All Semesters	8	All Semesters	8	All Semesters	8
	3		INDIVIDUAL	Value Added Courses	#Courses	4	#Courses	5	#Courses	4	#Courses	4	#Courses	7
	4		INDIVIDUAL	Audit Courses	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	5		INDIVIDUAL	Audit Courses for Career Enhancement	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	6		INDIVIDUAL	Specialization Stream	All 17 credits from same specialization		All 22 credits from same specialization		All 22 credits from same specialization		All 22 credits from same specialization		All 22 credits from same specialization	
	7		TEAM OF 6	Social Internship	#weeks	3	#weeks	3	#weeks	3	#weeks	3	#weeks	3
	8		INDIVIDUAL	Technical Internship	#weeks	4	#weeks	4	#weeks	4	#weeks	4	#weeks	4
	9		INDIVIDUAL	SDC Stream	2 Cr from Specialization SDC		4 Cr from Specialization SDC		4 Cr from Specialization SDC		4 Cr from Entrepreneurship SDC		NA	NA
	10		INDIVIDUAL	Course Modes (Mode A | Mode P)	NA	NA	#Courses (A or P)	8	#Courses (A or P)	5	#Courses (A or P)	5	#Courses (P)	5
	11	EVALUATION	TEAM OF 4	Research Publications	NA	NA	1 Scopus Conference & 1 Scopus Journal		WoS Journal	3	WoS Journal	1	Scopus Journal	1
	12		TEAM OF 4	Startup Registration	NA	NA	NA	NA	NA	NA	#LLP	1	NA	NA
	13		TEAM OF 4	Patent Filing	NA	NA	NA	NA	NA	NA	#Utility Patent	1	NA	NA
	14		TEAM OF 4	Patent Publishing	NA	NA	NA	NA	#Design Patents	1	#Design Patents	2	#Design Patents	1
	15		TEAM OF 4	Consultancy	NA	NA	NA	NA	NA	NA	NA	NA	#Projects	2
Program Add-On MINOR	1	REGULATION	INDIVIDUAL	Min Credits	Credits	183	Credits	203	Credits	203	Credits	203	Credits	203
	2		INDIVIDUAL	Min CGPA	CGPA	6.75	8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT	
	3		INDIVIDUAL	SGPA Consistency	NA	NA	All Semesters	8	All Semesters	8	All Semesters	8	All Semesters	8
	3		INDIVIDUAL	Value Added Courses	#Courses	4	#Courses	5	#Courses	4	#Courses	4	#Courses	7
	4		INDIVIDUAL	Audit Courses	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	5		INDIVIDUAL	Audit Courses for Career Enhancement	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	6		INDIVIDUAL	Minor Stream	All (16+4) Cr from selected Minor Program		All (16+4) Cr from selected Minor Program		All (16+4) Cr from selected Minor Program		All (16+4) Cr from selected Minor Program		All (16+4) Cr from selected Minor Program	
	7		TEAM OF 6	Social Internship	#weeks	3	#weeks	3	#weeks	3	#weeks	3	#weeks	3
	8		INDIVIDUAL	Technical Internship	#weeks	4	#weeks	4	#weeks	4	#weeks	4	#weeks	4
	9		INDIVIDUAL	SDC Stream	4 Cr from Minor Degree SDC		4 Cr from Minor Degree SDC		4 Cr from Minor Degree SDC		4 Cr from Entrepreneurship SDC 4 Cr from Minor Program SDC		4 Cr from Minor Degree SDC	
	10		INDIVIDUAL	Course Modes (Mode A | Mode P)	NA	NA	#Courses (A or P)	8	#Courses (A or P)	5	#Courses (A or P)	5	#Courses (P)	5
	11	EVALUATION	TEAM OF 4	Research Publications	NA	NA	Scopus Journal	1	WoS Journal	3	WoS Journal	1	Scopus Journal	1
	12		TEAM OF 4	Startup Registration	NA	NA	NA	NA	NA	NA	#LLP	1	NA	NA
	13		TEAM OF 4	Patent Filing	NA	NA	NA	NA	NA	NA	#Utility Patent	1	NA	NA
	14		TEAM OF 4	Patent Publishing	NA	NA	NA	NA	#Design Patents	1	#Design Patents	2	#Design Patents	1
	15		TEAM OF 4	Consultancy	NA	NA	NA	NA	NA	NA	NA	NA	#Projects	2
Program Add-On DOUBLE MAJOR	1	REGULATION	INDIVIDUAL	Min Credits	Credits	193	Credits	213	Credits	213	Credits	213	Credits	213
	2		INDIVIDUAL	Min CGPA	CGPA	7.75	8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT	
	3		INDIVIDUAL	SGPA Consistency	All Semesters	6.75	All Semesters	8	All Semesters	8	All Semesters	8	All Semesters	8
	3		INDIVIDUAL	Value Added Courses	#Courses	4	#Courses	5	#Courses	4	#Courses	4	#Courses	7
	4		INDIVIDUAL	Audit Courses	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	5		INDIVIDUAL	Audit Courses for Career Enhancement	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	6		INDIVIDUAL	Second Major Stream	All 38 Cr from PCC+FCC courses of the Selected Second Major Stream		All 38 Cr from PCC+FCC courses of the Selected Second Major Stream		All 38 Cr from PCC+FCC courses of the Selected Second Major Stream		All 38 Cr from PCC+FCC courses of the Selected Second Major Stream		All 38 Cr from PCC+FCC courses of the Selected Second Major Stream	
	7		TEAM OF 6	Social Internship	#weeks	3	#weeks	3	#weeks	3	#weeks	3	#weeks	3
	8		INDIVIDUAL	Technical Internship	#weeks	4	#weeks	4	#weeks	4	#weeks	4	#weeks	4
	9		INDIVIDUAL	SDC Stream	2 Cr from MAJOR-II Stream		2 Cr from MAJOR-II Stream		2 Cr from MAJOR-II Stream		4 Cr from Entrepreneurship SDC 2 Cr from MAJOR-II Stream		4 Cr from MAJOR-II Stream	
	10		INDIVIDUAL	Course Modes (Mode A | Mode P)	NA	NA	#Courses (A or P)	8	#Courses (A or P)	5	#Courses (A or P)	5	#Courses (P)	5
	11	EVALUATION	TEAM OF 4	Research Publications	NA	NA	Scopus Journal	1	WoS Journal	3	WoS Journal	1	Scopus Journal	1
	12		TEAM OF 4	Startup Registration	NA	NA	NA	NA	NA	NA	#LLP	1	NA	NA
	13		TEAM OF 4	Patent Filing	NA	NA	NA	NA	NA	NA	#Utility Patent	1	NA	NA
	14		TEAM OF 4	Patent Publishing	NA	NA	NA	NA	#Design Patents	1	#Design Patents	2	#Design Patents	1
	15		TEAM OF 4	Consultancy	NA	NA	NA	NA	NA	NA	NA	NA	#Projects	2

Y22 ECE, IOT

(DEEMED TO BE UNIVERSITY)

Y22 ACADEMIC STRUCTURE & FLEXIBILITIES FOR BACHELOR OF TECHNOLOGY - ECE & IOT

MAJOR FLEXIBILITY / PROGRAM ADD-ON	NO MAJOR FLEXIBILITY			Major Flexibility - HONORS			Major Flexibility - HONORS through RESEARCH			Major Flexibility - HONORS through INNOVATION			Major Flexibility - HONORS through EXPERIENTIAL LEARNING		
	Sl No	Course Category	Min. Credits	Sl No	Course Category	Min. Credits	Sl No	Course Category	Min. Credits	Sl No	Course Category	Min. Credits	Sl No	Course Category	Min. Credits
NO PROGRAM ADD-ON	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18
	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5
	3	ESC	25.5	3	ESC	25.5	3	ESC	25.5	3	ESC	25.5	3	ESC	25.5
	4	PCC	42	4	PCC	56	4	PCC	52	4	PCC	52	4	PCC	52
	5	FCC	9	5	FCC	9	5	FCC	9	5	FCC	9	5	FCC	9
	6	SDC	6	6	SDC	12	6	SDC	10	6	SDC	12	6	SDC	12
	7	PEC	14	7	PEC	14	7	PEC	14	7	PEC	14	7	PEC	14
	8	PRI	14	8	PRI	14	8	PRI	20	8	PRI	18	8	PRI	18
	9	OEC	9	9	OEC	9	9	OEC	9	9	OEC	9	9	OEC	9
	10	VAC	0	10	VAC	0	10	VAC	0	10	VAC	0	10	VAC	0
	11	AUC	0	11	AUC	0	11	AUC	0	11	AUC	0	11	AUC	0
	12	SIL	4	12	SIL	4	12	SIL	4	12	SIL	4	12	SIL	4
	GRAD REQUIREMENTS		**165**	GRAD REQUIREMENTS		**185**	GRAD REQUIREMENTS		**185**	GRAD REQUIREMENTS		**185**	GRAD REQUIREMENTS		**185**
Program Add-On **SPECIALIZATION**	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18
	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5
	3	ESC	25.5	3	ESC	25.5	3	ESC	25.5	3	ESC	25.5	3	ESC	25.5
	4	PCC	42	4	PCC	56	4	PCC	52	4	PCC	52	4	PCC	52
	5	FCC	9	5	FCC	9	5	FCC	9	5	FCC	9	5	FCC	9
	6	SDC	8	6	SDC	14	6	SDC	12	6	SDC	14	6	SDC	14
	7	PEC	17	7	PEC	22	7	PEC	22	7	PEC	22	7	PEC	22
	8	PRI	14	8	PRI	14	8	PRI	20	8	PRI	18	8	PRI	18
	9	OEC	9	9	OEC	9	9	OEC	9	9	OEC	9	9	OEC	9
	10	VAC	0	10	VAC	0	10	VAC	0	10	VAC	0	10	VAC	0
	11	AUC	0	11	AUC	0	11	AUC	0	11	AUC	0	11	AUC	0
	12	SIL	4	12	SIL	4	12	SIL	4	12	SIL	4	12	SIL	4
	GRAD REQUIREMENTS		**170**	GRAD REQUIREMENTS		**195**	GRAD REQUIREMENTS		**195**	GRAD REQUIREMENTS		**195**	GRAD REQUIREMENTS		**195**
Program Add-On **MINOR**	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18
	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5
	3	ESC	25.5	3	ESC	25.5	3	ESC	25.5	3	ESC	25.5	3	ESC	25.5
	4	PCC	42	4	PCC	56	4	PCC	52	4	PCC	52	4	PCC	52
	5	FCC	9	5	FCC	9	5	FCC	9	5	FCC	9	5	FCC	9
	6	MIN	16	6	MIN	16	6	MIN	16	6	MIN	16	6	MIN	16
	7	SDC	10	7	SDC	16	7	SDC	14	7	SDC	16	7	SDC	16
	8	PEC	14	8	PEC	14	8	PEC	14	8	PEC	14	8	PEC	14
	9	PRI	14	9	PRI	14	9	PRI	20	9	PRI	18	9	PRI	18
	10	OEC	9	10	OEC	9	10	OEC	9	10	OEC	9	10	OEC	9
	11	VAC	0	11	VAC	0	11	VAC	0	11	VAC	0	11	VAC	0
	12	AUC	0	12	AUC	0	12	AUC	0	12	AUC	0	12	AUC	0
	13	SIL	4	13	SIL	4	13	SIL	4	13	SIL	4	13	SIL	4
	GRAD REQUIREMENTS		**185**	GRAD REQUIREMENTS		**205**	GRAD REQUIREMENTS		**205**	GRAD REQUIREMENTS		**205**	GRAD REQUIREMENTS		**205**
Program Add-On **DOUBLE MAJOR**	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18
	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5
	3	ESC	25.5	3	ESC	25.5	3	ESC	25.5	3	ESC	25.5	3	ESC	25.5
	4	PCC	42	4	PCC	56	4	PCC	52	4	PCC	52	4	PCC	52
	5	FCC	6	5	FCC	6	5	FCC	6	5	FCC	6	5	FCC	6
	6	MAJOR II	38	6	MAJOR II	38	6	MAJOR II	38	6	MAJOR II	38	6	MAJOR II	38
	7	SDC	6	7	SDC	12	7	SDC	14	7	SDC	16	7	SDC	16
	8	PEC	14	8	PEC	14	8	PEC	14	8	PEC	14	8	PEC	14
	9	PRI	18	9	PRI	18	9	PRI	20	9	PRI	18	9	PRI	18
	10	VAC	0	10	VAC	0	10	VAC	0	10	VAC	0	10	VAC	0
	11	AUC	0	11	AUC	0	11	AUC	0	11	AUC	0	11	AUC	0
	12	SIL	4	12	SIL	4	12	SIL	4	12	SIL	4	12	SIL	4
	GRAD REQUIREMENTS		**195**	GRAD REQUIREMENTS		**215**	GRAD REQUIREMENTS		**215**	GRAD REQUIREMENTS		**215**	GRAD REQUIREMENTS		**215**

(DEEMED TO BE UNIVERSITY)

Y22 ACADEMIC REGULATIONS & EVALUATION TARGETS FOR AWARD OF DEGREES FROM BACHELOR OF TECHNOLOGY - ECE & IOT

MAJOR FLEXIBILITY / PROGRAM ADD-ON				Y22 { ECE IOT }	NO MAJOR FLEXIBILITY		Major Flexibility - HONORS		Major Flexibility - HONORS through RESEARCH		Major Flexibility - HONORS through INNOVATION		Major Flexibility - HONORS through EXPERIENTIAL LEARNING	
	Sl No	REGUL/ EVAL	INDV/ TEAM	Regulation	Measure	Min. Requirement	Measure	Min. Requirement	Measure	Min. Requirement	Measure	Min. Requirement	Measure	Min. Requirement
NO PROGRAM ADD-ON	1	REGULATION	INDIVIDUAL	Min Credits	Credits	165	Credits	185	Credits	185	Credits	185	Credits	185
	2		INDIVIDUAL	Min CGPA	CGPA	4.75	8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT	
	3		INDIVIDUAL	SGPA Consistency	NA	NA	All Semesters	8	All Semesters	8	All Semesters	8	All Semesters	8
	3		INDIVIDUAL	Value Added Courses	#Courses	3	#Courses	4	#Courses	3	#Courses	3	#Courses	6
	4		INDIVIDUAL	Audit Courses	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	5		INDIVIDUAL	Audit Courses for Career Enhancement	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	6		INDIVIDUAL	Specialization Stream	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7		TEAM OF 6	Social Internship	#weeks	3	#weeks	3	#weeks	3	#weeks	3	#weeks	3
	8		INDIVIDUAL	Technical Internship	#weeks	4	#weeks	4	#weeks	4	#weeks	4	#weeks	4
	9		INDIVIDUAL	SDC Stream	NA	NA	NA	NA	NA	NA	4 Cr from Entrepreneurship SDC		NA	NA
	10		INDIVIDUAL	Course Modes (Mode A | Mode P)	NA	NA	#Courses (A or P)	8	#Courses (A or P)	5	#Courses (A or P)	5	#Courses (P)	5
	11	EVALUATION	TEAM OF 4	Research Publications	NA	NA	Scopus Journal	1	WoS Journal	3	WoS Journal	1	Scopus Journal	1
	12		TEAM OF 4	Startup Registration	NA	NA	NA	NA	NA	NA	#LLP	1	NA	NA
	13		TEAM OF 4	Patent Filing	NA	NA	NA	NA	NA	NA	#Utility Patent	1	NA	NA
	14		TEAM OF 4	Patent Publishing	NA	NA	NA	NA	#Design Patents	1	#Design Patents	2	#Design Patents	1
	15		TEAM OF 4	Consultancy	NA	NA	NA	NA	NA	NA	NA	NA	#Projects	2
Program Add-On SPECIALIZATION	1	REGULATION	INDIVIDUAL	Min Credits	Credits	170	Credits	195	Credits	195	Credits	195	Credits	195
	2		INDIVIDUAL	Min CGPA	CGPA	6.75	8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT	
	3		INDIVIDUAL	SGPA Consistency	NA	NA	All Semesters	8	All Semesters	8	All Semesters	8	All Semesters	8
	3		INDIVIDUAL	Value Added Courses	#Courses	3	#Courses	4	#Courses	3	#Courses	3	#Courses	6
	4		INDIVIDUAL	Audit Courses	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	5		INDIVIDUAL	Audit Courses for Career Enhancement	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	6		INDIVIDUAL	Specialization Stream	All 17 credits from same specialization		All 22 credits from same specialization		All 22 credits from same specialization		All 22 credits from same specialization		All 22 credits from same specialization	
	7		TEAM OF 6	Social Internship	#weeks	3	#weeks	3	#weeks	3	#weeks	3	#weeks	3
	8		INDIVIDUAL	Technical Internship	#weeks	4	#weeks	4	#weeks	4	#weeks	4	#weeks	4
	9		INDIVIDUAL	SDC Stream	2 Cr from Specialization SDC		4 Cr from Specialization SDC		4 Cr from Specialization SDC		4 Cr from Entrepreneurship SDC		NA	NA
	10		INDIVIDUAL	Course Modes (Mode A | Mode P)	NA	NA	#Courses (A or P)	8	#Courses (A or P)	5	#Courses (A or P)	5	#Courses (P)	5
	11	EVALUATION	TEAM OF 4	Research Publications	NA	NA	1 Scopus Conference & 1 Scopus Journal		WoS Journal	3	WoS Journal	1	Scopus Journal	1
	12		TEAM OF 4	Startup Registration	NA	NA	NA	NA	NA	NA	#LLP	1	NA	NA
	13		TEAM OF 4	Patent Filing	NA	NA	NA	NA	NA	NA	#Utility Patent	1	NA	NA
	14		TEAM OF 4	Patent Publishing	NA	NA	NA	NA	#Design Patents	1	#Design Patents	2	#Design Patents	1
	15		TEAM OF 4	Consultancy	NA	NA	NA	NA	NA	NA	NA	NA	#Projects	2
Program Add-On MINOR	1	REGULATION	INDIVIDUAL	Min Credits	Credits	185	Credits	205	Credits	205	Credits	205	Credits	205
	2		INDIVIDUAL	Min CGPA	CGPA	6.75	8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT	
	3		INDIVIDUAL	SGPA Consistency	NA	NA	All Semesters	8	All Semesters	8	All Semesters	8	All Semesters	8
	3		INDIVIDUAL	Value Added Courses	#Courses	3	#Courses	4	#Courses	3	#Courses	3	#Courses	6
	4		INDIVIDUAL	Audit Courses	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	5		INDIVIDUAL	Audit Courses for Career Enhancement	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	6		INDIVIDUAL	Minor Stream	All (16+4) Cr from selected Minor Program		All (16+4) Cr from selected Minor Program		All (16+4) Cr from selected Minor Program		All (16+4) Cr from selected Minor Program		All (16+4) Cr from selected Minor Program	
	7		TEAM OF 6	Social Internship	#weeks	3	#weeks	3	#weeks	3	#weeks	3	#weeks	3
	8		INDIVIDUAL	Technical Internship	#weeks	4	#weeks	4	#weeks	4	#weeks	4	#weeks	4
	9		INDIVIDUAL	SDC Stream	4 Cr from Minor Degree SDC		4 Cr from Minor Degree SDC		4 Cr from Minor Degree SDC		4 Cr from Entrepreneurship SDC 4 Cr from Minor Program SDC		4 Cr from Minor Degree SDC	
	10		INDIVIDUAL	Course Modes (Mode A | Mode P)	NA	NA	#Courses (A or P)	8	#Courses (A or P)	5	#Courses (A or P)	5	#Courses (P)	5
	11	EVALUATION	TEAM OF 4	Research Publications	NA	NA	Scopus Journal	1	WoS Journal	3	WoS Journal	1	Scopus Journal	1
	12		TEAM OF 4	Startup Registration	NA	NA	NA	NA	NA	NA	#LLP	1	NA	NA
	13		TEAM OF 4	Patent Filing	NA	NA	NA	NA	NA	NA	#Utility Patent	1	NA	NA
	14		TEAM OF 4	Patent Publishing	NA	NA	NA	NA	#Design Patents	1	#Design Patents	2	#Design Patents	1
	15		TEAM OF 4	Consultancy	NA	NA	NA	NA	NA	NA	NA	NA	#Projects	2
Program Add-On DOUBLE MAJOR	1	REGULATION	INDIVIDUAL	Min Credits	Credits	195	Credits	215	Credits	215	Credits	215	Credits	215
	2		INDIVIDUAL	Min CGPA	CGPA	7.75	8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT	
	3		INDIVIDUAL	SGPA Consistency	All Semesters	6.75	All Semesters	8	All Semesters	8	All Semesters	8	All Semesters	8
	3		INDIVIDUAL	Value Added Courses	#Courses	3	#Courses	4	#Courses	3	#Courses	3	#Courses	6
	4		INDIVIDUAL	Audit Courses	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	5		INDIVIDUAL	Audit Courses for Career Enhancement	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	6		INDIVIDUAL	Second Major Stream	All 38 Cr from PCC+FCC courses of the Selected Second Major Stream		All 38 Cr from PCC+FCC courses of the Selected Second Major Stream		All 38 Cr from PCC+FCC courses of the Selected Second Major Stream		All 38 Cr from PCC+FCC courses of the Selected Second Major Stream		All 38 Cr from PCC+FCC courses of the Selected Second Major Stream	
	7		TEAM OF 6	Social Internship	#weeks	3	#weeks	3	#weeks	3	#weeks	3	#weeks	3
	8		INDIVIDUAL	Technical Internship	#weeks	4	#weeks	4	#weeks	4	#weeks	4	#weeks	4
	9		INDIVIDUAL	SDC Stream	2 Cr from MAJOR-II Stream		2 Cr from MAJOR-II Stream		2 Cr from MAJOR-II Stream		4 Cr from Entrepreneurship SDC 2 Cr from MAJOR-II Stream		4 Cr from MAJOR-II Stream	
	10		INDIVIDUAL	Course Modes (Mode A | Mode P)	NA	NA	#Courses (A or P)	8	#Courses (A or P)	5	#Courses (A or P)	5	#Courses (A or P)	5
	11	EVALUATION	TEAM OF 4	Research Publications	NA	NA	Scopus Journal	1	WoS Journal	3	WoS Journal	1	Scopus Journal	1
	12		TEAM OF 4	Startup Registration	NA	NA	NA	NA	NA	NA	#LLP	1	NA	NA
	13		TEAM OF 4	Patent Filing	NA	NA	NA	NA	NA	NA	#Utility Patent	1	NA	NA
	14		TEAM OF 4	Patent Publishing	NA	NA	NA	NA	#Design Patents	1	#Design Patents	2	#Design Patents	1
	15		TEAM OF 4	Consultancy	NA	NA	NA	NA	NA	NA	NA	NA	#Projects	2

Y22 EEE

(DEEMED TO BE UNIVERSITY)

Y22 ACADEMIC STRUCTURE & FLEXIBILITIES FOR BACHELOR OF TECHNOLOGY - EEE

MAJOR FLEXIBILITY / PROGRAM ADD-ON	NO MAJOR FLEXIBILITY			Major Flexibility - HONORS			Major Flexibility - HONORS through RESEARCH			Major Flexibility - HONORS through INNOVATION			Major Flexibility - HONORS through EXPERIENTIAL LEARNING		
	Sl No	Course Category	Min. Credits	Sl No	Course Category	Min. Credits	Sl No	Course Category	Min. Credits	Sl No	Course Category	Min. Credits	Sl No	Course Category	Min. Credits
NO PROGRAM ADD-ON	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18
	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5
	3	ESC	30.5	3	ESC	30.5	3	ESC	30.5	3	ESC	30.5	3	ESC	30.5
	4	PCC	38	4	PCC	52	4	PCC	48	4	PCC	48	4	PCC	48
	5	FCC	9	5	FCC	9	5	FCC	9	5	FCC	9	5	FCC	9
	6	SDC	6	6	SDC	12	6	SDC	10	6	SDC	12	6	SDC	12
	7	PEC	14	7	PEC	14	7	PEC	14	7	PEC	14	7	PEC	14
	8	PRI	14	8	PRI	14	8	PRI	20	8	PRI	18	8	PRI	18
	9	OEC	9	9	OEC	9	9	OEC	9	9	OEC	9	9	OEC	9
	10	VAC	0	10	VAC	0	10	VAC	0	10	VAC	0	10	VAC	0
	11	AUC	0	11	AUC	0	11	AUC	0	11	AUC	0	11	AUC	0
	12	SIL	4	12	SIL	4	12	SIL	4	12	SIL	4	12	SIL	4
	GRAD REQUIREMENTS		166	GRAD REQUIREMENTS		186	GRAD REQUIREMENTS		186	GRAD REQUIREMENTS		186	GRAD REQUIREMENTS		186
Program Add-On **SPECIALIZATION**	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18
	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5
	3	ESC	30.5	3	ESC	30.5	3	ESC	30.5	3	ESC	30.5	3	ESC	30.5
	4	PCC	38	4	PCC	52	4	PCC	48	4	PCC	48	4	PCC	48
	5	FCC	9	5	FCC	9	5	FCC	9	5	FCC	9	5	FCC	9
	6	SDC	8	6	SDC	14	6	SDC	12	6	SDC	14	6	SDC	14
	7	PEC	17	7	PEC	22	7	PEC	22	7	PEC	22	7	PEC	22
	8	PRI	14	8	PRI	14	8	PRI	20	8	PRI	18	8	PRI	18
	9	OEC	9	9	OEC	9	9	OEC	9	9	OEC	9	9	OEC	9
	10	VAC	0	10	VAC	0	10	VAC	0	10	VAC	0	10	VAC	0
	11	AUC	0	11	AUC	0	11	AUC	0	11	AUC	0	11	AUC	0
	12	SIL	4	12	SIL	4	12	SIL	4	12	SIL	4	12	SIL	4
	GRAD REQUIREMENTS		171	GRAD REQUIREMENTS		196	GRAD REQUIREMENTS		196	GRAD REQUIREMENTS		196	GRAD REQUIREMENTS		196
Program Add-On **MINOR**	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18
	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5
	3	ESC	30.5	3	ESC	30.5	3	ESC	30.5	3	ESC	30.5	3	ESC	30.5
	4	PCC	38	4	PCC	52	4	PCC	48	4	PCC	48	4	PCC	48
	5	FCC	9	5	FCC	9	5	FCC	9	5	FCC	9	5	FCC	9
	6	MIN	16	6	MIN	16	6	MIN	16	6	MIN	16	6	MIN	16
	7	SDC	10	7	SDC	16	7	SDC	14	7	SDC	16	7	SDC	16
	8	PEC	14	8	PEC	14	8	PEC	14	8	PEC	14	8	PEC	14
	9	PRI	14	9	PRI	14	9	PRI	20	9	PRI	18	9	PRI	18
	10	OEC	9	10	OEC	9	10	OEC	9	10	OEC	9	10	OEC	9
	11	VAC	0	11	VAC	0	11	VAC	0	11	VAC	0	11	VAC	0
	12	AUC	0	12	AUC	0	12	AUC	0	12	AUC	0	12	AUC	0
	13	SIL	4	13	SIL	4	13	SIL	4	13	SIL	4	13	SIL	4
	GRAD REQUIREMENTS		186	GRAD REQUIREMENTS		206	GRAD REQUIREMENTS		206	GRAD REQUIREMENTS		206	GRAD REQUIREMENTS		206
Program Add-On **DOUBLE MAJOR**	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18
	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5
	3	ESC	30.5	3	ESC	30.5	3	ESC	30.5	3	ESC	30.5	3	ESC	30.5
	4	PCC	38	4	PCC	52	4	PCC	48	4	PCC	48	4	PCC	48
	5	FCC	6	5	FCC	6	5	FCC	6	5	FCC	6	5	FCC	6
	6	MAJOR II	38	6	MAJOR II	38	6	MAJOR II	38	6	MAJOR II	38	6	MAJOR II	38
	7	SDC	6	7	SDC	12	7	SDC	14	7	SDC	16	7	SDC	16
	8	PEC	14	8	PEC	14	8	PEC	14	8	PEC	14	8	PEC	14
	9	PRI	18	9	PRI	18	9	PRI	20	9	PRI	18	9	PRI	18
	10	VAC	0	10	VAC	0	10	VAC	0	10	VAC	0	10	VAC	0
	11	AUC	0	11	AUC	0	11	AUC	0	11	AUC	0	11	AUC	0
	12	SIL	4	12	SIL	4	12	SIL	4	12	SIL	4	12	SIL	4
	GRAD REQUIREMENTS		196	GRAD REQUIREMENTS		216	GRAD REQUIREMENTS		216	GRAD REQUIREMENTS		216	GRAD REQUIREMENTS		216

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Y22 ACADEMIC REGULATIONS & EVALUATION TARGETS FOR AWARD OF DEGREES FROM BACHELOR OF TECHNOLOGY - EEE

Y22 EEE

MAJOR FLEXIBILITY / PROGRAM ADD-ON	Sl No	REGUL/ EVAL	INDV/ TEAM	Regulation	NO MAJOR FLEXIBILITY		Major Flexibility - HONORS		Major Flexibility - HONORS through RESEARCH		Major Flexibility - HONORS through INNOVATION		Major Flexibility - HONORS through EXPERIENTIAL LEARNING	
					Measure	Min. Requirement	Measure	Min. Requirement	Measure	Min. Requirement	Measure	Min. Requirement	Measure	Min. Requirement
NO PROGRAM ADD-ON	1	REGULATION	INDIVIDUAL	Min Credits	Credits	166	Credits	186	Credits	186	Credits	186	Credits	186
	2		INDIVIDUAL	Min CGPA	CGPA	4.75	8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT	
	3		INDIVIDUAL	SGPA Consistency	NA	NA	All Semesters	8	All Semesters	8	All Semesters	8	All Semesters	8
	3		INDIVIDUAL	Value Added Courses	#Courses	3	#Courses	4	#Courses	3	#Courses	3	#Courses	6
	4		INDIVIDUAL	Audit Courses	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	5		INDIVIDUAL	Audit Courses for Career Enhancement	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	6		INDIVIDUAL	Specialization Stream	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7		TEAM OF 6	Social Internship	#weeks	3	#weeks	3	#weeks	3	#weeks	3	#weeks	3
	8		INDIVIDUAL	Technical Internship	#weeks	4	#weeks	4	#weeks	4	#weeks	4	#weeks	4
	9		INDIVIDUAL	SDC Stream	NA	NA	NA	NA	NA	NA	4 Cr from Entrepreneurship SDC		NA	NA
	10		INDIVIDUAL	Course Modes (Mode A | Mode P)	NA	NA	#Courses (A or P)	8	#Courses (A or P)	5	#Courses (A or P)	5	#Courses (P)	5
	11	EVALUATION	TEAM OF 4	Research Publications	NA	NA	Scopus Journal	1	WoS Journal	3	WoS Journal	1	Scopus Journal	1
	12		TEAM OF 4	Startup Registration	NA	NA	NA	NA	NA	NA	#LLP	1	NA	NA
	13		TEAM OF 4	Patent Filing	NA	NA	NA	NA	NA	NA	#Utility Patent	1	NA	NA
	14		TEAM OF 4	Patent Publishing	NA	NA	NA	NA	#Design Patents	1	#Design Patents	2	#Design Patents	1
	15		TEAM OF 4	Consultancy	NA	NA	NA	NA	NA	NA	NA	NA	#Projects	2
Program Add-On SPECIALIZATION	1	REGULATION	INDIVIDUAL	Min Credits	Credits	172	Credits	197	Credits	197	Credits	197	Credits	197
	2		INDIVIDUAL	Min CGPA	CGPA	6.75	8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT	
	3		INDIVIDUAL	SGPA Consistency	NA	NA	All Semesters	8	All Semesters	8	All Semesters	8	All Semesters	8
	3		INDIVIDUAL	Value Added Courses	#Courses	3	#Courses	4	#Courses	3	#Courses	3	#Courses	6
	4		INDIVIDUAL	Audit Courses	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	5		INDIVIDUAL	Audit Courses for Career Enhancement	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	6		INDIVIDUAL	Specialization Stream	All 17 credits from same specialization		All 22 credits from same specialization		All 22 credits from same specialization		All 22 credits from same specialization		All 22 credits from same specialization	
	7		TEAM OF 6	Social Internship	#weeks	3	#weeks	3	#weeks	3	#weeks	3	#weeks	3
	8		INDIVIDUAL	Technical Internship	#weeks	4	#weeks	4	#weeks	4	#weeks	4	#weeks	4
	9		INDIVIDUAL	SDC Stream	2 Cr from Specialization SDC		4 Cr from Specialization SDC		4 Cr from Specialization SDC		4 Cr from Entrepreneurship SDC		NA	NA
	10		INDIVIDUAL	Course Modes (Mode A | Mode P)	NA	NA	#Courses (A or P)	8	#Courses (A or P)	5	#Courses (A or P)	5	#Courses (P)	5
	11	EVALUATION	TEAM OF 4	Research Publications	NA	NA	1 Scopus Conference & 1 Scopus Journal		WoS Journal	3	WoS Journal	1	Scopus Journal	1
	12		TEAM OF 4	Startup Registration	NA	NA	NA	NA	NA	NA	#LLP	1	NA	NA
	13		TEAM OF 4	Patent Filing	NA	NA	NA	NA	NA	NA	#Utility Patent	1	NA	NA
	14		TEAM OF 4	Patent Publishing	NA	NA	NA	NA	#Design Patents	1	#Design Patents	2	#Design Patents	1
	15		TEAM OF 4	Consultancy	NA	NA	NA	NA	NA	NA	NA	NA	#Projects	2
Program Add-On MINOR	1	REGULATION	INDIVIDUAL	Min Credits	Credits	186	Credits	206	Credits	206	Credits	206	Credits	206
	2		INDIVIDUAL	Min CGPA	CGPA	6.75	8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT	
	3		INDIVIDUAL	SGPA Consistency	NA	NA	All Semesters	8	All Semesters	8	All Semesters	8	All Semesters	8
	3		INDIVIDUAL	Value Added Courses	#Courses	3	#Courses	4	#Courses	3	#Courses	3	#Courses	6
	4		INDIVIDUAL	Audit Courses	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	5		INDIVIDUAL	Audit Courses for Career Enhancement	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	6		INDIVIDUAL	Minor Stream	All (16+4) Cr from selected Minor Program		All (16+4) Cr from selected Minor Program		All (16+4) Cr from selected Minor Program		All (16+4) Cr from selected Minor Program		All (16+4) Cr from selected Minor Program	
	7		TEAM OF 6	Social Internship	#weeks	3	#weeks	3	#weeks	3	#weeks	3	#weeks	3
	8		INDIVIDUAL	Technical Internship	#weeks	4	#weeks	4	#weeks	4	#weeks	4	#weeks	4
	9		INDIVIDUAL	SDC Stream	4 Cr from Minor Degree SDC		4 Cr from Minor Degree SDC		4 Cr from Minor Degree SDC		4 Cr from Entrepreneurship SDC 4 Cr from Minor Program SDC		4 Cr from Minor Degree SDC	
	10		INDIVIDUAL	Course Modes (Mode A | Mode P)	NA	NA	#Courses (A or P)	8	#Courses (A or P)	5	#Courses (A or P)	5	#Courses (P)	5
	11	EVALUATION	TEAM OF 4	Research Publications	NA	NA	Scopus Journal	1	WoS Journal	3	WoS Journal	1	Scopus Journal	1
	12		TEAM OF 4	Startup Registration	NA	NA	NA	NA	NA	NA	#LLP	1	NA	NA
	13		TEAM OF 4	Patent Filing	NA	NA	NA	NA	NA	NA	#Utility Patent	1	NA	NA
	14		TEAM OF 4	Patent Publishing	NA	NA	NA	NA	#Design Patents	1	#Design Patents	2	#Design Patents	1
	15		TEAM OF 4	Consultancy	NA	NA	NA	NA	NA	NA	NA	NA	#Projects	2
Program Add-On DOUBLE MAJOR	1	REGULATION	INDIVIDUAL	Min Credits	Credits	196	Credits	216	Credits	216	Credits	216	Credits	216
	2		INDIVIDUAL	Min CGPA	CGPA	7.75	8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT	
	3		INDIVIDUAL	SGPA Consistency	All Semesters	6.75	All Semesters	8	All Semesters	8	All Semesters	8	All Semesters	8
	3		INDIVIDUAL	Value Added Courses	#Courses	3	#Courses	4	#Courses	3	#Courses	3	#Courses	6
	4		INDIVIDUAL	Audit Courses	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	5		INDIVIDUAL	Audit Courses for Career Enhancement	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	6		INDIVIDUAL	Second Major Stream	All 38 Cr from PCC+FCC courses of the Selected Second Major Stream		All 38 Cr from PCC+FCC courses of the Selected Second Major Stream		All 38 Cr from PCC+FCC courses of the Selected Second Major Stream		All 38 Cr from PCC+FCC courses of the Selected Second Major Stream		All 38 Cr from PCC+FCC courses of the Selected Second Major Stream	
	7		TEAM OF 6	Social Internship	#weeks	3	#weeks	3	#weeks	3	#weeks	3	#weeks	3
	8		INDIVIDUAL	Technical Internship	#weeks	4	#weeks	4	#weeks	4	#weeks	4	#weeks	4
	9		INDIVIDUAL	SDC Stream	2 Cr from MAJOR-II Stream		2 Cr from MAJOR-II Stream		2 Cr from MAJOR-II Stream		4 Cr from Entrepreneurship SDC 2 Cr from MAJOR-II Stream		4 Cr from MAJOR-II Stream	
	10		INDIVIDUAL	Course Modes (Mode A | Mode P)	NA	NA	#Courses (A or P)	8	#Courses (A or P)	5	#Courses (A or P)	5	#Courses (P)	5
	11	EVALUATION	TEAM OF 4	Research Publications	NA	NA	Scopus Journal	1	WoS Journal	3	WoS Journal	1	Scopus Journal	1
	12		TEAM OF 4	Startup Registration	NA	NA	NA	NA	NA	NA	#LLP	1	NA	NA
	13		TEAM OF 4	Patent Filing	NA	NA	NA	NA	NA	NA	#Utility Patent	1	NA	NA
	14		TEAM OF 4	Patent Publishing	NA	NA	NA	NA	#Design Patents	1	#Design Patents	2	#Design Patents	1
	15		TEAM OF 4	Consultancy	NA	NA	NA	NA	NA	NA	NA	NA	#Projects	2

Y22 ECS

(DEEMED TO BE UNIVERSITY)

Y22 ACADEMIC STRUCTURE & FLEXIBILITIES FOR BACHELOR OF TECHNOLOGY - ECS

MAJOR FLEXIBILITY / PROGRAM ADD-ON	NO MAJOR FLEXIBILITY			Major Flexibility - HONORS			Major Flexibility - HONORS through RESEARCH			Major Flexibility - HONORS through INNOVATION			Major Flexibility - HONORS through EXPERIENTIAL LEARNING		
	Sl No	Course Category	Min. Credits	Sl No	Course Category	Min. Credits	Sl No	Course Category	Min. Credits	Sl No	Course Category	Min. Credits	Sl No	Course Category	Min. Credits
NO PROGRAM ADD-ON	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18
	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5
	3	ESC	28.5	3	ESC	28.5	3	ESC	28.5	3	ESC	28.5	3	ESC	28.5
	4	PCC	40	4	PCC	54	4	PCC	50	4	PCC	50	4	PCC	50
	5	FCC	9	5	FCC	9	5	FCC	9	5	FCC	9	5	FCC	9
	6	SDC	6	6	SDC	12	6	SDC	10	6	SDC	12	6	SDC	12
	7	PEC	14	7	PEC	14	7	PEC	14	7	PEC	14	7	PEC	14
	8	PRI	14	8	PRI	14	8	PRI	20	8	PRI	18	8	PRI	18
	9	OEC	9	9	OEC	9	9	OEC	9	9	OEC	9	9	OEC	9
	10	VAC	0	10	VAC	0	10	VAC	0	10	VAC	0	10	VAC	0
	11	AUC	0	11	AUC	0	11	AUC	0	11	AUC	0	11	AUC	0
	12	SIL	4	12	SIL	4	12	SIL	4	12	SIL	4	12	SIL	4
	GRAD REQUIREMENTS		166	GRAD REQUIREMENTS		186	GRAD REQUIREMENTS		186	GRAD REQUIREMENTS		186	GRAD REQUIREMENTS		186
Program Add-On **SPECIALIZATION**	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18
	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5
	3	ESC	28.5	3	ESC	28.5	3	ESC	28.5	3	ESC	28.5	3	ESC	28.5
	4	PCC	40	4	PCC	54	4	PCC	50	4	PCC	50	4	PCC	50
	5	FCC	9	5	FCC	9	5	FCC	9	5	FCC	9	5	FCC	9
	6	SDC	8	6	SDC	14	6	SDC	12	6	SDC	14	6	SDC	14
	7	PEC	17	7	PEC	22	7	PEC	22	7	PEC	22	7	PEC	22
	8	PRI	14	8	PRI	14	8	PRI	20	8	PRI	18	8	PRI	18
	9	OEC	9	9	OEC	9	9	OEC	9	9	OEC	9	9	OEC	9
	10	VAC	0	10	VAC	0	10	VAC	0	10	VAC	0	10	VAC	0
	11	AUC	0	11	AUC	0	11	AUC	0	11	AUC	0	11	AUC	0
	12	SIL	4	12	SIL	4	12	SIL	4	12	SIL	4	12	SIL	4
	GRAD REQUIREMENTS		171	GRAD REQUIREMENTS		196	GRAD REQUIREMENTS		196	GRAD REQUIREMENTS		196	GRAD REQUIREMENTS		196
Program Add-On **MINOR**	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18
	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5
	3	ESC	28.5	3	ESC	28.5	3	ESC	28.5	3	ESC	28.5	3	ESC	28.5
	4	PCC	40	4	PCC	54	4	PCC	50	4	PCC	50	4	PCC	50
	5	FCC	9	5	FCC	9	5	FCC	9	5	FCC	9	5	FCC	9
	6	MIN	16	6	MIN	16	6	MIN	16	6	MIN	16	6	MIN	16
	7	SDC	10	7	SDC	16	7	SDC	14	7	SDC	16	7	SDC	16
	8	PEC	14	8	PEC	14	8	PEC	14	8	PEC	14	8	PEC	14
	9	PRI	14	9	PRI	14	9	PRI	20	9	PRI	18	9	PRI	18
	10	OEC	9	10	OEC	9	10	OEC	9	10	OEC	9	10	OEC	9
	11	VAC	0	11	VAC	0	11	VAC	0	11	VAC	0	11	VAC	0
	12	AUC	0	12	AUC	0	12	AUC	0	12	AUC	0	12	AUC	0
	13	SIL	4	13	SIL	4	13	SIL	4	13	SIL	4	13	SIL	4
	GRAD REQUIREMENTS		186	GRAD REQUIREMENTS		206	GRAD REQUIREMENTS		206	GRAD REQUIREMENTS		206	GRAD REQUIREMENTS		206
Program Add-On **DOUBLE MAJOR**	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18
	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5
	3	ESC	28.5	3	ESC	28.5	3	ESC	28.5	3	ESC	28.5	3	ESC	28.5
	4	PCC	40	4	PCC	54	4	PCC	50	4	PCC	50	4	PCC	50
	5	FCC	6	5	FCC	6	5	FCC	6	5	FCC	6	5	FCC	6
	6	MAJOR II	38	6	MAJOR II	38	6	MAJOR II	38	6	MAJOR II	38	6	MAJOR II	38
	7	SDC	6	7	SDC	12	7	SDC	14	7	SDC	16	7	SDC	16
	8	PEC	14	8	PEC	14	8	PEC	14	8	PEC	14	8	PEC	14
	9	PRI	18	9	PRI	18	9	PRI	20	9	PRI	18	9	PRI	18
	10	VAC	0	10	VAC	0	10	VAC	0	10	VAC	0	10	VAC	0
	11	AUC	0	11	AUC	0	11	AUC	0	11	AUC	0	11	AUC	0
	12	SIL	4	12	SIL	4	12	SIL	4	12	SIL	4	12	SIL	4
	GRAD REQUIREMENTS		196	GRAD REQUIREMENTS		216	GRAD REQUIREMENTS		216	GRAD REQUIREMENTS		216	GRAD REQUIREMENTS		216

(DEEMED TO BE UNIVERSITY)

Y22 ACADEMIC REGULATIONS & EVALUATION TARGETS FOR AWARD OF DEGREES FROM BACHELOR OF TECHNOLOGY - ECS

Y22 ECS

MAJOR FLEXIBILITY / PROGRAM ADD-ON	Sl No	REGUL/ EVAL	INDV/ TEAM	Regulation	NO MAJOR FLEXIBILITY		Major Flexibility - HONORS		Major Flexibility - HONORS through RESEARCH		Major Flexibility - HONORS through INNOVATION		Major Flexibility - HONORS through EXPERIENTIAL LEARNING	
					Measure	Min. Requirement	Measure	Min. Requirement	Measure	Min. Requirement	Measure	Min. Requirement	Measure	Min. Requirement
NO PROGRAM ADD-ON	1	REGULATION	INDIVIDUAL	Min Credits	Credits	166	Credits	186	Credits	186	Credits	186	Credits	186
	2		INDIVIDUAL	Min CGPA	CGPA	4.75	8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT	
	3		INDIVIDUAL	SGPA Consistency	NA	NA	All Semesters	8	All Semesters	8	All Semesters	8	All Semesters	8
	3		INDIVIDUAL	Value Added Courses	#Courses	3	#Courses	4	#Courses	3	#Courses	3	#Courses	6
	4		INDIVIDUAL	Audit Courses	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	5		INDIVIDUAL	Audit Courses for Career Enhancement	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	6		INDIVIDUAL	Specialization Stream	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7		TEAM OF 6	Social Internship	#weeks	3	#weeks	3	#weeks	3	#weeks	3	#weeks	3
	8		INDIVIDUAL	Technical Internship	#weeks	4	#weeks	4	#weeks	4	#weeks	4	#weeks	4
	9		INDIVIDUAL	SDC Stream	NA	NA	NA	NA	NA	NA	4 Cr from Entrepreneurship SDC		NA	NA
	10		INDIVIDUAL	Course Modes (Mode A | Mode P)	NA	NA	#Courses (A or P)	8	#Courses (A or P)	5	#Courses (A or P)	5	#Courses(P)	5
	11	EVALUATION	TEAM OF 4	Research Publications	NA	NA	Scopus Journal	1	WoS Journal	3	WoS Journal	1	Scopus Journal	1
	12		TEAM OF 4	Startup Registration	NA	NA	NA	NA	NA	NA	#LLP	1	NA	NA
	13		TEAM OF 4	Patent Filing	NA	NA	NA	NA	NA	NA	#Utility Patent	1	NA	NA
	14		TEAM OF 4	Patent Publishing	NA	NA	NA	NA	#Design Patents	1	#Design Patents	2	#Design Patents	1
	15		TEAM OF 4	Consultancy	NA	NA	NA	NA	NA	NA	NA	NA	#Projects	2
Program Add-On SPECIALIZATION	1	REGULATION	INDIVIDUAL	Min Credits	Credits	172	Credits	197	Credits	197	Credits	197	Credits	197
	2		INDIVIDUAL	Min CGPA	CGPA	6.75	8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT	
	3		INDIVIDUAL	SGPA Consistency	NA	NA	All Semesters	8	All Semesters	8	All Semesters	8	All Semesters	8
	3		INDIVIDUAL	Value Added Courses	#Courses	3	#Courses	4	#Courses	3	#Courses	3	#Courses	6
	4		INDIVIDUAL	Audit Courses	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	5		INDIVIDUAL	Audit Courses for Career Enhancement	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	6		INDIVIDUAL	Specialization Stream	All 17 credits from same specialization		All 22 credits from same specialization		All 22 credits from same specialization		All 22 credits from same specialization		All 22 credits from same specialization	
	7		TEAM OF 6	Social Internship	#weeks	3	#weeks	3	#weeks	3	#weeks	3	#weeks	3
	8		INDIVIDUAL	Technical Internship	#weeks	4	#weeks	4	#weeks	4	#weeks	4	#weeks	4
	9		INDIVIDUAL	SDC Stream	2 Cr from Specialization SDC		4 Cr from Specialization SDC		4 Cr from Specialization SDC		4 Cr from Entrepreneurship SDC		NA	NA
	10		INDIVIDUAL	Course Modes (Mode A | Mode P)	NA	NA	#Courses (A or P)	8	#Courses (A or P)	5	#Courses (A or P)	5	#Courses(P)	5
	11	EVALUATION	TEAM OF 4	Research Publications	NA	NA	1 Scopus Conference & 1 Scopus Journal		WoS Journal	3	WoS Journal	1	Scopus Journal	1
	12		TEAM OF 4	Startup Registration	NA	NA	NA	NA	NA	NA	#LLP	1	NA	NA
	13		TEAM OF 4	Patent Filing	NA	NA	NA	NA	NA	NA	#Utility Patent	1	NA	NA
	14		TEAM OF 4	Patent Publishing	NA	NA	NA	NA	#Design Patents	1	#Design Patents	2	#Design Patents	1
	15		TEAM OF 4	Consultancy	NA	NA	NA	NA	NA	NA	NA	NA	#Projects	2
Program Add-On MINOR	1	REGULATION	INDIVIDUAL	Min Credits	Credits	186	Credits	206	Credits	206	Credits	206	Credits	206
	2		INDIVIDUAL	Min CGPA	CGPA	6.75	8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT	
	3		INDIVIDUAL	SGPA Consistency	NA	NA	All Semesters	8	All Semesters	8	All Semesters	8	All Semesters	8
	3		INDIVIDUAL	Value Added Courses	#Courses	3	#Courses	4	#Courses	3	#Courses	3	#Courses	6
	4		INDIVIDUAL	Audit Courses	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	5		INDIVIDUAL	Audit Courses for Career Enhancement	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	6		INDIVIDUAL	Minor Stream	All (16+4) Cr from selected Minor Program		All (16+4) Cr from selected Minor Program		All (16+4) Cr from selected Minor Program		All (16+4) Cr from selected Minor Program		All (16+4) Cr from selected Minor Program	
	7		TEAM OF 6	Social Internship	#weeks	3	#weeks	3	#weeks	3	#weeks	3	#weeks	3
	8		INDIVIDUAL	Technical Internship	#weeks	4	#weeks	4	#weeks	4	#weeks	4	#weeks	4
	9		INDIVIDUAL	SDC Stream	2 Cr from Minor Degree SDC		4 Cr from Minor Degree SDC		4 Cr from Minor Degree SDC		4 Cr from Entrepreneurship SDC 4 Cr from Minor Program SDC		4 Cr from Minor Degree SDC	
	10		INDIVIDUAL	Course Modes (Mode A | Mode P)	NA	NA	#Courses (A or P)	8	#Courses (A or P)	5	#Courses (A or P)	5	#Courses(P)	5
	11	EVALUATION	TEAM OF 4	Research Publications	NA	NA	Scopus Journal	1	WoS Journal	3	WoS Journal	1	Scopus Journal	1
	12		TEAM OF 4	Startup Registration	NA	NA	NA	NA	NA	NA	#LLP	1	NA	NA
	13		TEAM OF 4	Patent Filing	NA	NA	NA	NA	NA	NA	#Utility Patent	1	NA	NA
	14		TEAM OF 4	Patent Publishing	NA	NA	NA	NA	#Design Patents	1	#Design Patents	2	#Design Patents	1
	15		TEAM OF 4	Consultancy	NA	NA	NA	NA	NA	NA	NA	NA	#Projects	2
Program Add-On DOUBLE MAJOR	1	REGULATION	INDIVIDUAL	Min Credits	Credits	196	Credits	216	Credits	216	Credits	216	Credits	216
	2		INDIVIDUAL	Min CGPA	CGPA	7.75	8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT	
	3		INDIVIDUAL	SGPA Consistency	All Semesters	6.75	All Semesters	8	All Semesters	8	All Semesters	8	All Semesters	8
	3		INDIVIDUAL	Value Added Courses	#Courses	3	#Courses	4	#Courses	3	#Courses	3	#Courses	6
	4		INDIVIDUAL	Audit Courses	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	5		INDIVIDUAL	Audit Courses for Career Enhancement	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	6		INDIVIDUAL	Second Major Stream	All 38 Cr from PCC+FCC courses of the Selected Second Major Stream		All 38 Cr from PCC+FCC courses of the Selected Second Major Stream		All 38 Cr from PCC+FCC courses of the Selected Second Major Stream		All 38 Cr from PCC+FCC courses of the Selected Second Major Stream		All 38 Cr from PCC+FCC courses of the Selected Second Major Stream	
	7		TEAM OF 6	Social Internship	#weeks	3	#weeks	3	#weeks	3	#weeks	3	#weeks	3
	8		INDIVIDUAL	Technical Internship	#weeks	4	#weeks	4	#weeks	4	#weeks	4	#weeks	4
	9		INDIVIDUAL	SDC Stream	2 Cr from MAJOR-II Stream		2 Cr from MAJOR-II Stream		2 Cr from MAJOR-II Stream		4 Cr from Entrepreneurship SDC 2 Cr from MAJOR-II Stream		4 Cr from MAJOR-II Stream	
	10		INDIVIDUAL	Course Modes (Mode A | Mode P)	NA	NA	#Courses (A or P)	8	#Courses (A or P)	5	#Courses (A or P)	5	#Courses(P)	5
	11	EVALUATION	TEAM OF 4	Research Publications	NA	NA	Scopus Journal	1	WoS Journal	3	WoS Journal	1	Scopus Journal	1
	12		TEAM OF 4	Startup Registration	NA	NA	NA	NA	NA	NA	#LLP	1	NA	NA
	13		TEAM OF 4	Patent Filing	NA	NA	NA	NA	NA	NA	#Utility Patent	1	NA	NA
	14		TEAM OF 4	Patent Publishing	NA	NA	NA	NA	#Design Patents	1	#Design Patents	2	#Design Patents	1
	15		TEAM OF 4	Consultancy	NA	NA	NA	NA	NA	NA	NA	NA	#Projects	2

Y22 BT

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Y22 ACADEMIC STRUCTURE & FLEXIBILITIES FOR BACHELOR OF TECHNOLOGY - BIO TECHNOLOGY

MAJOR FLEXIBILITY / PROGRAM ADD-ON	NO MAJOR FLEXIBILITY			Major Flexibility - HONORS			Major Flexibility - HONORS through RESEARCH			Major Flexibility - HONORS through INNOVATION			Major Flexibility - HONORS through EXPERIENTIAL LEARNING		
	Sl No	Course Category	Min. Credits	Sl No	Course Category	Min. Credits	Sl No	Course Category	Min. Credits	Sl No	Course Category	Min. Credits	Sl No	Course Category	Min. Credits
NO PROGRAM ADD-ON	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18
	2	BSC	26.5	2	BSC	26.5	2	BSC	26.5	2	BSC	26.5	2	BSC	26.5
	3	ESC	21.5	3	ESC	21.5	3	ESC	21.5	3	ESC	21.5	3	ESC	21.5
	4	PCC	42	4	PCC	56	4	PCC	52	4	PCC	52	4	PCC	52
	5	FCC	9	5	FCC	9	5	FCC	9	5	FCC	9	5	FCC	9
	6	SDC	6	6	SDC	12	6	SDC	10	6	SDC	12	6	SDC	12
	7	PEC	14	7	PEC	14	7	PEC	14	7	PEC	14	7	PEC	14
	8	PRI	14	8	PRI	14	8	PRI	20	8	PRI	18	8	PRI	18
	9	OEC	9	9	OEC	9	9	OEC	9	9	OEC	9	9	OEC	9
	10	VAC	0	10	VAC	0	10	VAC	0	10	VAC	0	10	VAC	0
	11	AUC	0	11	AUC	0	11	AUC	0	11	AUC	0	11	AUC	0
	12	SIL	4	12	SIL	4	12	SIL	4	12	SIL	4	12	SIL	4
	GRAD REQUIREMENTS		**164**	GRAD REQUIREMENTS		**184**	GRAD REQUIREMENTS		**184**	GRAD REQUIREMENTS		**184**	GRAD REQUIREMENTS		**184**
Program Add-On **SPECIALIZATION**	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18
	2	BSC	26.5	2	BSC	26.5	2	BSC	26.5	2	BSC	26.5	2	BSC	26.5
	3	ESC	21.5	3	ESC	21.5	3	ESC	21.5	3	ESC	21.5	3	ESC	21.5
	4	PCC	42	4	PCC	56	4	PCC	52	4	PCC	52	4	PCC	52
	5	FCC	9	5	FCC	9	5	FCC	9	5	FCC	9	5	FCC	9
	6	SDC	8	6	SDC	14	6	SDC	12	6	SDC	14	6	SDC	14
	7	PEC	17	7	PEC	22	7	PEC	22	7	PEC	22	7	PEC	22
	8	PRI	14	8	PRI	14	8	PRI	20	8	PRI	18	8	PRI	18
	9	OEC	9	9	OEC	9	9	OEC	9	9	OEC	9	9	OEC	9
	10	VAC	0	10	VAC	0	10	VAC	0	10	VAC	0	10	VAC	0
	11	AUC	0	11	AUC	0	11	AUC	0	11	AUC	0	11	AUC	0
	12	SIL	4	12	SIL	4	12	SIL	4	12	SIL	4	12	SIL	4
	GRAD REQUIREMENTS		**169**	GRAD REQUIREMENTS		**194**	GRAD REQUIREMENTS		**194**	GRAD REQUIREMENTS		**194**	GRAD REQUIREMENTS		**194**
Program Add-On **MINOR**	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18
	2	BSC	26.5	2	BSC	26.5	2	BSC	26.5	2	BSC	26.5	2	BSC	26.5
	3	ESC	21.5	3	ESC	21.5	3	ESC	21.5	3	ESC	21.5	3	ESC	21.5
	4	PCC	42	4	PCC	56	4	PCC	52	4	PCC	52	4	PCC	52
	5	FCC	9	5	FCC	9	5	FCC	9	5	FCC	9	5	FCC	9
	6	MIN	16	6	MIN	16	6	MIN	16	6	MIN	16	6	MIN	16
	7	SDC	10	7	SDC	16	7	SDC	14	7	SDC	16	7	SDC	16
	8	PEC	14	8	PEC	14	8	PEC	14	8	PEC	14	8	PEC	14
	9	PRI	14	9	PRI	14	9	PRI	20	9	PRI	18	9	PRI	18
	10	OEC	9	10	OEC	9	10	OEC	9	10	OEC	9	10	OEC	9
	11	VAC	0	11	VAC	0	11	VAC	0	11	VAC	0	11	VAC	0
	12	AUC	0	12	AUC	0	12	AUC	0	12	AUC	0	12	AUC	0
	13	SIL	4	13	SIL	4	13	SIL	4	13	SIL	4	13	SIL	4
	GRAD REQUIREMENTS		**184**	GRAD REQUIREMENTS		**204**	GRAD REQUIREMENTS		**204**	GRAD REQUIREMENTS		**204**	GRAD REQUIREMENTS		**204**
Program Add-On **DOUBLE MAJOR**	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18
	2	BSC	26.5	2	BSC	26.5	2	BSC	26.5	2	BSC	26.5	2	BSC	26.5
	3	ESC	21.5	3	ESC	21.5	3	ESC	21.5	3	ESC	21.5	3	ESC	21.5
	4	PCC	42	4	PCC	56	4	PCC	52	4	PCC	52	4	PCC	52
	5	FCC	6	5	FCC	6	5	FCC	6	5	FCC	6	5	FCC	6
	6	MAJOR II	38	6	MAJOR II	38	6	MAJOR II	38	6	MAJOR II	38	6	MAJOR II	38
	7	SDC	6	7	SDC	12	7	SDC	14	7	SDC	16	7	SDC	16
	8	PEC	14	8	PEC	14	8	PEC	14	8	PEC	14	8	PEC	14
	9	PRI	18	9	PRI	18	9	PRI	20	9	PRI	18	9	PRI	18
	10	VAC	0	10	VAC	0	10	VAC	0	10	VAC	0	10	VAC	0
	11	AUC	0	11	AUC	0	11	AUC	0	11	AUC	0	11	AUC	0
	12	SIL	4	12	SIL	4	12	SIL	4	12	SIL	4	12	SIL	4
	GRAD REQUIREMENTS		**194**	GRAD REQUIREMENTS		**214**	GRAD REQUIREMENTS		**214**	GRAD REQUIREMENTS		**214**	GRAD REQUIREMENTS		**214**

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Y22 ACADEMIC REGULATIONS & EVALUATION TARGETS FOR AWARD OF DEGREES FROM BACHELOR OF TECHNOLOGY - BIO- TECHNOLOGY

Y22 BT

MAJOR FLEXIBILITY / PROGRAM ADD-ON	Sl No	REGUL/ EVAL	INDV/ TEAM	Regulation	NO MAJOR FLEXIBILITY		Major Flexibility - HONORS		Major Flexibility - HONORS through RESEARCH		Major Flexibility - HONORS through INNOVATION		Major Flexibility - HONORS through EXPERIENTIAL LEARNING	
					Measure	Min. Requirement	Measure	Min. Requirement	Measure	Min. Requirement	Measure	Min. Requirement	Measure	Min. Requirement
NO PROGRAM ADD-ON	1	REGULATION	INDIVIDUAL	Min Credits	Credits	164	Credits	184	Credits	184	Credits	184	Credits	184
	2		INDIVIDUAL	Min CGPA	CGPA	4.75	8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT	
	3		INDIVIDUAL	SGPA Consistency	NA	NA	All Semesters	8	All Semesters	8	All Semesters	8	All Semesters	8
	3		INDIVIDUAL	Value Added Courses	#Courses	3	#Courses	4	#Courses	3	#Courses	3	#Courses	6
	4		INDIVIDUAL	Audit Courses	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	5		INDIVIDUAL	Audit Courses for Career Enhancement	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	6		INDIVIDUAL	Specialization Stream	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7		TEAM OF 6	Social Internship	#weeks	3	#weeks	3	#weeks	3	#weeks	3	#weeks	3
	8		INDIVIDUAL	Technical Internship	#weeks	4	#weeks	4	#weeks	4	#weeks	4	#weeks	4
	9		INDIVIDUAL	SDC Stream	NA	NA	NA	NA	NA	NA	4 Cr from Entrepreneurship SDC		NA	NA
	10		INDIVIDUAL	Course Modes (Mode A | Mode P)	NA	NA	#Courses (A or P)	8	#Courses (A or P)	5	#Courses (A or P)	5	#Courses(P)	5
	11	EVALUATION	TEAM OF 4	Research Publications	NA	NA	Scopus Journal	1	WoS Journal	3	WoS Journal	1	Scopus Journal	1
	12		TEAM OF 4	Startup Registration	NA	NA	NA	NA	NA	NA	#LLP	1	NA	NA
	13		TEAM OF 4	Patent Filing	NA	NA	NA	NA	NA	NA	#Utility Patent	1	NA	NA
	14		TEAM OF 4	Patent Publishing	NA	NA	NA	NA	#Design Patents	1	#Design Patents	2	#Design Patents	1
	15		TEAM OF 4	Consultancy	NA	NA	NA	NA	NA	NA	NA	NA	#Projects	2
Program Add-On SPECIALIZATION	1	REGULATION	INDIVIDUAL	Min Credits	Credits	169	Credits	194	Credits	194	Credits	194	Credits	194
	2		INDIVIDUAL	Min CGPA	CGPA	6.75	8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT	
	3		INDIVIDUAL	SGPA Consistency	NA	NA	All Semesters	8	All Semesters	8	All Semesters	8	All Semesters	8
	3		INDIVIDUAL	Value Added Courses	#Courses	3	#Courses	4	#Courses	3	#Courses	3	#Courses	6
	4		INDIVIDUAL	Audit Courses	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	5		INDIVIDUAL	Audit Courses for Career Enhancement	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	6		INDIVIDUAL	Specialization Stream	All 17 credits from same specialization		All 22 credits from same specialization		All 22 credits from same specialization		All 22 credits from same specialization		All 22 credits from same specialization	
	7		TEAM OF 6	Social Internship	#weeks	3	#weeks	3	#weeks	3	#weeks	3	#weeks	3
	8		INDIVIDUAL	Technical Internship	#weeks	4	#weeks	4	#weeks	4	#weeks	4	#weeks	4
	9		INDIVIDUAL	SDC Stream	2 Cr from Specialization SDC		4 Cr from Specialization SDC		4 Cr from Specialization SDC		4 Cr from Entrepreneurship SDC		NA	NA
	10		INDIVIDUAL	Course Modes (Mode A | Mode P)	NA	NA	#Courses (A or P)	8	#Courses (A or P)	5	#Courses (A or P)	5	#Courses(P)	5
	11	EVALUATION	TEAM OF 4	Research Publications	NA	NA	1 Scopus Conference & 1 Scopus Journal		WoS Journal	3	WoS Journal	1	Scopus Journal	1
	12		TEAM OF 4	Startup Registration	NA	NA	NA	NA	NA	NA	#LLP	1	NA	NA
	13		TEAM OF 4	Patent Filing	NA	NA	NA	NA	NA	NA	#Utility Patent	1	NA	NA
	14		TEAM OF 4	Patent Publishing	NA	NA	NA	NA	#Design Patents	1	#Design Patents	2	#Design Patents	1
	15		TEAM OF 4	Consultancy	NA	NA	NA	NA	NA	NA	NA	NA	#Projects	2
Program Add-On MINOR	1	REGULATION	INDIVIDUAL	Min Credits	Credits	184	Credits	204	Credits	204	Credits	204	Credits	204
	2		INDIVIDUAL	Min CGPA	CGPA	6.75	8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT	
	3		INDIVIDUAL	SGPA Consistency	NA	NA	All Semesters	8	All Semesters	8	All Semesters	8	All Semesters	8
	3		INDIVIDUAL	Value Added Courses	#Courses	3	#Courses	4	#Courses	3	#Courses	3	#Courses	6
	4		INDIVIDUAL	Audit Courses	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	5		INDIVIDUAL	Audit Courses for Career Enhancement	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	6		INDIVIDUAL	Minor Stream	All (16+4) Cr from selected Minor Program		All (16+4) Cr from selected Minor Program		All (16+4) Cr from selected Minor Program		All (16+4) Cr from selected Minor Program		All (16+4) Cr from selected Minor Program	
	7		TEAM OF 6	Social Internship	#weeks	3	#weeks	3	#weeks	3	#weeks	3	#weeks	3
	8		INDIVIDUAL	Technical Internship	#weeks	4	#weeks	4	#weeks	4	#weeks	4	#weeks	4
	9		INDIVIDUAL	SDC Stream	4 Cr from Minor Degree SDC		4 Cr from Minor Degree SDC		4 Cr from Minor Degree SDC		4 Cr from Entrepreneurship SDC 4 Cr from Minor Program SDC		4 Cr from Minor Degree SDC	
	10		INDIVIDUAL	Course Modes (Mode A | Mode P)	NA	NA	#Courses (A or P)	8	#Courses (A or P)	5	#Courses (A or P)	5	#Courses(P)	5
	11	EVALUATION	TEAM OF 4	Research Publications	NA	NA	Scopus Journal	1	WoS Journal	3	WoS Journal	1	Scopus Journal	1
	12		TEAM OF 4	Startup Registration	NA	NA	NA	NA	NA	NA	#LLP	1	NA	NA
	13		TEAM OF 4	Patent Filing	NA	NA	NA	NA	NA	NA	#Utility Patent	1	NA	NA
	14		TEAM OF 4	Patent Publishing	NA	NA	NA	NA	#Design Patents	1	#Design Patents	2	#Design Patents	1
	15		TEAM OF 4	Consultancy	NA	NA	NA	NA	NA	NA	NA	NA	#Projects	2
Program Add-On DOUBLE MAJOR	1	REGULATION	INDIVIDUAL	Min Credits	Credits	194	Credits	214	Credits	214	Credits	214	Credits	214
	2		INDIVIDUAL	Min CGPA	CGPA	7.75	8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT	
	3		INDIVIDUAL	SGPA Consistency	All Semesters	6.75	All Semesters	8	All Semesters	8	All Semesters	8	All Semesters	8
	3		INDIVIDUAL	Value Added Courses	#Courses	3	#Courses	4	#Courses	3	#Courses	3	#Courses	6
	4		INDIVIDUAL	Audit Courses	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	5		INDIVIDUAL	Audit Courses for Career Enhancement	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	6		INDIVIDUAL	Second Major Stream	All 38 Cr from PCC+FCC courses of the Selected Second Major Stream		All 38 Cr from PCC+FCC courses of the Selected Second Major Stream		All 38 Cr from PCC+FCC courses of the Selected Second Major Stream		All 38 Cr from PCC+FCC courses of the Selected Second Major Stream		All 38 Cr from PCC+FCC courses of the Selected Second Major Stream	
	7		TEAM OF 6	Social Internship	#weeks	3	#weeks	3	#weeks	3	#weeks	3	#weeks	3
	8		INDIVIDUAL	Technical Internship	#weeks	4	#weeks	4	#weeks	4	#weeks	4	#weeks	4
	9		INDIVIDUAL	SDC Stream	2 Cr from MAJOR-II Stream		2 Cr from MAJOR-II Stream		2 Cr from MAJOR-II Stream		4 Cr from Entrepreneurship SDC 2 Cr from MAJOR-II Stream		4 Cr from MAJOR-II Stream	
	10		INDIVIDUAL	Course Modes (Mode A | Mode P)	NA	NA	#Courses (A or P)	8	#Courses (A or P)	5	#Courses (A or P)	5	#Courses(P)	5
	11	EVALUATION	TEAM OF 4	Research Publications	NA	NA	Scopus Journal	1	WoS Journal	3	WoS Journal	1	Scopus Journal	1
	12		TEAM OF 4	Startup Registration	NA	NA	NA	NA	NA	NA	#LLP	1	NA	NA
	13		TEAM OF 4	Patent Filing	NA	NA	NA	NA	NA	NA	#Utility Patent	1	NA	NA
	14		TEAM OF 4	Patent Publishing	NA	NA	NA	NA	#Design Patents	1	#Design Patents	2	#Design Patents	1
	15		TEAM OF 4	Consultancy	NA	NA	NA	NA	NA	NA	NA	NA	#Projects	2

Y22 ME

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Y22 ACADEMIC STRUCTURE & FLEXIBILITIES FOR BACHELOR OF TECHNOLOGY - MECHANICAL ENGINEERING

MAJOR FLEXIBILITY / PROGRAM ADD-ON	NO MAJOR FLEXIBILITY			Major Flexibility - HONORS			Major Flexibility - HONORS through RESEARCH			Major Flexibility - HONORS through INNOVATION			Major Flexibility - HONORS through EXPERIENTIAL LEARNING		
	Sl No	Course Category	Min. Credits	Sl No	Course Category	Min. Credits	Sl No	Course Category	Min. Credits	Sl No	Course Category	Min. Credits	Sl No	Course Category	Min. Credits
NO PROGRAM ADD-ON	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18
	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5
	3	ESC	30.5	3	ESC	30.5	3	ESC	30.5	3	ESC	30.5	3	ESC	30.5
	4	PCC	40	4	PCC	54	4	PCC	50	4	PCC	50	4	PCC	50
	5	FCC	9	5	FCC	9	5	FCC	9	5	FCC	9	5	FCC	9
	6	SDC	6	6	SDC	12	6	SDC	10	6	SDC	12	6	SDC	12
	7	PEC	14	7	PEC	14	7	PEC	14	7	PEC	14	7	PEC	14
	8	PRI	14	8	PRI	14	8	PRI	20	8	PRI	18	8	PRI	18
	9	OEC	9	9	OEC	9	9	OEC	9	9	OEC	9	9	OEC	9
	10	VAC	0	10	VAC	0	10	VAC	0	10	VAC	0	10	VAC	0
	11	AUC	0	11	AUC	0	11	AUC	0	11	AUC	0	11	AUC	0
	12	SIL	4	12	SIL	4	12	SIL	4	12	SIL	4	12	SIL	4
	GRAD REQUIREMENTS		**168**	GRAD REQUIREMENTS		**188**	GRAD REQUIREMENTS		**188**	GRAD REQUIREMENTS		**188**	GRAD REQUIREMENTS		**188**
Program Add-On **SPECIALIZATION**	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18
	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5
	3	ESC	30.5	3	ESC	30.5	3	ESC	30.5	3	ESC	30.5	3	ESC	30.5
	4	PCC	40	4	PCC	54	4	PCC	50	4	PCC	50	4	PCC	50
	5	FCC	9	5	FCC	9	5	FCC	9	5	FCC	9	5	FCC	9
	6	SDC	8	6	SDC	14	6	SDC	12	6	SDC	14	6	SDC	14
	7	PEC	17	7	PEC	22	7	PEC	22	7	PEC	22	7	PEC	22
	8	PRI	14	8	PRI	14	8	PRI	20	8	PRI	18	8	PRI	18
	9	OEC	9	9	OEC	9	9	OEC	9	9	OEC	9	9	OEC	9
	10	VAC	0	10	VAC	0	10	VAC	0	10	VAC	0	10	VAC	0
	11	AUC	0	11	AUC	0	11	AUC	0	11	AUC	0	11	AUC	0
	12	SIL	4	12	SIL	4	12	SIL	4	12	SIL	4	12	SIL	4
	GRAD REQUIREMENTS		**173**	GRAD REQUIREMENTS		**198**	GRAD REQUIREMENTS		**198**	GRAD REQUIREMENTS		**198**	GRAD REQUIREMENTS		**198**
Program Add-On **MINOR**	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18
	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5
	3	ESC	30.5	3	ESC	30.5	3	ESC	30.5	3	ESC	30.5	3	ESC	30.5
	4	PCC	40	4	PCC	54	4	PCC	50	4	PCC	50	4	PCC	50
	5	FCC	9	5	FCC	9	5	FCC	9	5	FCC	9	5	FCC	9
	6	MIN	16	6	MIN	16	6	MIN	16	6	MIN	16	6	MIN	16
	7	SDC	10	7	SDC	16	7	SDC	14	7	SDC	16	7	SDC	16
	8	PEC	14	8	PEC	14	8	PEC	14	8	PEC	14	8	PEC	14
	9	PRI	14	9	PRI	14	9	PRI	20	9	PRI	18	9	PRI	18
	10	OEC	9	10	OEC	9	10	OEC	9	10	OEC	9	10	OEC	9
	11	VAC	0	11	VAC	0	11	VAC	0	11	VAC	0	11	VAC	0
	12	AUC	0	12	AUC	0	12	AUC	0	12	AUC	0	12	AUC	0
	13	SIL	4	13	SIL	4	13	SIL	4	13	SIL	4	13	SIL	4
	GRAD REQUIREMENTS		**188**	GRAD REQUIREMENTS		**208**	GRAD REQUIREMENTS		**208**	GRAD REQUIREMENTS		**208**	GRAD REQUIREMENTS		**208**
Program Add-On **DOUBLE MAJOR**	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18
	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5
	3	ESC	30.5	3	ESC	30.5	3	ESC	30.5	3	ESC	30.5	3	ESC	30.5
	4	PCC	40	4	PCC	54	4	PCC	50	4	PCC	50	4	PCC	50
	5	FCC	6	5	FCC	6	5	FCC	6	5	FCC	6	5	FCC	6
	6	MAJOR II	38	6	MAJOR II	38	6	MAJOR II	38	6	MAJOR II	38	6	MAJOR II	38
	7	SDC	6	7	SDC	12	7	SDC	14	7	SDC	16	7	SDC	16
	8	PEC	14	8	PEC	14	8	PEC	14	8	PEC	14	8	PEC	14
	9	PRI	18	9	PRI	18	9	PRI	20	9	PRI	18	9	PRI	18
	10	VAC	0	10	VAC	0	10	VAC	0	10	VAC	0	10	VAC	0
	11	AUC	0	11	AUC	0	11	AUC	0	11	AUC	0	11	AUC	0
	12	SIL	4	12	SIL	4	12	SIL	4	12	SIL	4	12	SIL	4
	GRAD REQUIREMENTS		**198**	GRAD REQUIREMENTS		**218**	GRAD REQUIREMENTS		**218**	GRAD REQUIREMENTS		**218**	GRAD REQUIREMENTS		**218**

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Y22 ACADEMIC REGULATIONS & EVALUATION TARGETS FOR AWARD OF DEGREES FROM BACHELOR OF TECHNOLOGY - MECHANICAL ENGINEERING

Y22 ME

MAJOR FLEXIBILITY / PROGRAM ADD-ON	Sl No	REGUL/ EVAL	INDV/ TEAM	Regulation	NO MAJOR FLEXIBILITY		Major Flexibility - HONORS		Major Flexibility - HONORS through RESEARCH		Major Flexibility - HONORS through INNOVATION		Major Flexibility - HONORS through EXPERIENTIAL LEARNING	
					Measure	Min. Requirement	Measure	Min. Requirement	Measure	Min. Requirement	Measure	Min. Requirement	Measure	Min. Requirement
NO PROGRAM ADD-ON	1	REGULATION	INDIVIDUAL	Min Credits	Credits	168	Credits	188	Credits	188	Credits	188	Credits	188
	2		INDIVIDUAL	Min CGPA	CGPA	4.75	8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT	
	3		INDIVIDUAL	SGPA Consistency	NA	NA	All Semesters	8	All Semesters	8	All Semesters	8	All Semesters	8
	3		INDIVIDUAL	Value Added Courses	#Courses	3	#Courses	4	#Courses	3	#Courses	3	#Courses	6
	4		INDIVIDUAL	Audit Courses	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	5		INDIVIDUAL	Audit Courses for Career Enhancement	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	6		INDIVIDUAL	Specialization Stream	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7		TEAM OF 6	Social Internship	#weeks	3	#weeks	3	#weeks	3	#weeks	3	#weeks	3
	8		INDIVIDUAL	Technical Internship	#weeks	4	#weeks	4	#weeks	4	#weeks	4	#weeks	4
	9		INDIVIDUAL	SDC Stream	NA	NA	NA	NA	NA	NA	4 Cr from Entrepreneurship SDC		NA	NA
	10		INDIVIDUAL	Course Modes (Mode A | Mode P)	NA	NA	#Courses (A or P)	8	#Courses (A or P)	5	#Courses (A or P)	5	#Courses (P)	5
	11	EVALUATION	TEAM OF 4	Research Publications	NA	NA	Scopus Journal	1	WoS Journal	3	WoS Journal	1	Scopus Journal	1
	12		TEAM OF 4	Startup Registration	NA	NA	NA	NA	NA	NA	#LLP	1	NA	NA
	13		TEAM OF 4	Patent Filing	NA	NA	NA	NA	NA	NA	#Utility Patent	1	NA	NA
	14		TEAM OF 4	Patent Publishing	NA	NA	NA	NA	#Design Patents	1	#Design Patents	2	#Design Patents	1
	15		TEAM OF 4	Consultancy	NA	NA	NA	NA	NA	NA	NA	NA	#Projects	2
Program Add-On SPECIALIZATION	1	REGULATION	INDIVIDUAL	Min Credits	Credits	173	Credits	198	Credits	198	Credits	198	Credits	198
	2		INDIVIDUAL	Min CGPA	CGPA	6.75	8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT	
	3		INDIVIDUAL	SGPA Consistency	NA	NA	All Semesters	8	All Semesters	8	All Semesters	8	All Semesters	8
	3		INDIVIDUAL	Value Added Courses	#Courses	3	#Courses	4	#Courses	3	#Courses	3	#Courses	6
	4		INDIVIDUAL	Audit Courses	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	5		INDIVIDUAL	Audit Courses for Career Enhancement	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	6		INDIVIDUAL	Specialization Stream	All 17 credits from same specialization		All 22 credits from same specialization		All 22 credits from same specialization		All 22 credits from same specialization		All 22 credits from same specialization	
	7		TEAM OF 6	Social Internship	#weeks	3	#weeks	3	#weeks	3	#weeks	3	#weeks	3
	8		INDIVIDUAL	Technical Internship	#weeks	4	#weeks	4	#weeks	4	#weeks	4	#weeks	4
	9		INDIVIDUAL	SDC Stream	2 Cr from Specialization SDC		4 Cr from Specialization SDC		4 Cr from Specialization SDC		4 Cr from Entrepreneurship SDC		NA	NA
	10		INDIVIDUAL	Course Modes (Mode A | Mode P)	NA	NA	#Courses (A or P)	8	#Courses (A or P)	5	#Courses (A or P)	5	#Courses (P)	5
	11	EVALUATION	TEAM OF 4	Research Publications	NA	NA	1 Scopus Conference & 1 Scopus Journal		WoS Journal	3	WoS Journal	1	Scopus Journal	1
	12		TEAM OF 4	Startup Registration	NA	NA	NA	NA	NA	NA	#LLP	1	NA	NA
	13		TEAM OF 4	Patent Filing	NA	NA	NA	NA	NA	NA	#Utility Patent	1	NA	NA
	14		TEAM OF 4	Patent Publishing	NA	NA	NA	NA	#Design Patents	1	#Design Patents	2	#Design Patents	1
	15		TEAM OF 4	Consultancy	NA	NA	NA	NA	NA	NA	NA	NA	#Projects	2
Program Add-On MINOR	1	REGULATION	INDIVIDUAL	Min Credits	Credits	188	Credits	208	Credits	208	Credits	208	Credits	208
	2		INDIVIDUAL	Min CGPA	CGPA	6.75	8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT	
	3		INDIVIDUAL	SGPA Consistency	NA	NA	All Semesters	8	All Semesters	8	All Semesters	8	All Semesters	8
	3		INDIVIDUAL	Value Added Courses	#Courses	3	#Courses	4	#Courses	3	#Courses	3	#Courses	6
	4		INDIVIDUAL	Audit Courses	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	5		INDIVIDUAL	Audit Courses for Career Enhancement	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	6		INDIVIDUAL	Minor Stream	All (16+4) Cr from selected Minor Program		All (16+4) Cr from selected Minor Program		All (16+4) Cr from selected Minor Program		All (16+4) Cr from selected Minor Program		All (16+4) Cr from selected Minor Program	
	7		TEAM OF 6	Social Internship	#weeks	3	#weeks	3	#weeks	3	#weeks	3	#weeks	3
	8		INDIVIDUAL	Technical Internship	#weeks	4	#weeks	4	#weeks	4	#weeks	4	#weeks	4
	9		INDIVIDUAL	SDC Stream	4 Cr from Minor Degree SDC		4 Cr from Minor Degree SDC		4 Cr from Minor Degree SDC		4 Cr from Entrepreneurship SDC 4 Cr from Minor Program SDC		4 Cr from Minor Degree SDC	
	10		INDIVIDUAL	Course Modes (Mode A | Mode P)	NA	NA	#Courses (A or P)	8	#Courses (A or P)	5	#Courses (A or P)	5	#Courses (P)	5
	11	EVALUATION	TEAM OF 4	Research Publications	NA	NA	Scopus Journal	1	WoS Journal	3	WoS Journal	1	Scopus Journal	1
	12		TEAM OF 4	Startup Registration	NA	NA	NA	NA	NA	NA	#LLP	1	NA	NA
	13		TEAM OF 4	Patent Filing	NA	NA	NA	NA	NA	NA	#Utility Patent	1	NA	NA
	14		TEAM OF 4	Patent Publishing	NA	NA	NA	NA	#Design Patents	1	#Design Patents	2	#Design Patents	1
	15		TEAM OF 4	Consultancy	NA	NA	NA	NA	NA	NA	NA	NA	#Projects	2
Program Add-On DOUBLE MAJOR	1	REGULATION	INDIVIDUAL	Min Credits	Credits	198	Credits	218	Credits	218	Credits	218	Credits	218
	2		INDIVIDUAL	Min CGPA	CGPA	7.75	8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT	
	3		INDIVIDUAL	SGPA Consistency	All Semesters	6.75	All Semesters	8	All Semesters	8	All Semesters	8	All Semesters	8
	3		INDIVIDUAL	Value Added Courses	#Courses	3	#Courses	4	#Courses	3	#Courses	3	#Courses	6
	4		INDIVIDUAL	Audit Courses	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	5		INDIVIDUAL	Audit Courses for Career Enhancement	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	6		INDIVIDUAL	Second Major Stream	All 38 Cr from PCC+FCC courses of the Selected Second Major Stream		All 38 Cr from PCC+FCC courses of the Selected Second Major Stream		All 38 Cr from PCC+FCC courses of the Selected Second Major Stream		All 38 Cr from PCC+FCC courses of the Selected Second Major Stream		All 38 Cr from PCC+FCC courses of the Selected Second Major Stream	
	7		TEAM OF 6	Social Internship	#weeks	3	#weeks	3	#weeks	3	#weeks	3	#weeks	3
	8		INDIVIDUAL	Technical Internship	#weeks	4	#weeks	4	#weeks	4	#weeks	4	#weeks	4
	9		INDIVIDUAL	SDC Stream	2 Cr from MAJOR-II Stream		2 Cr from MAJOR-II Stream		2 Cr from MAJOR-II Stream		4 Cr from Entrepreneurship SDC 2 Cr from MAJOR-II Stream		4 Cr from MAJOR-II Stream	
	10		INDIVIDUAL	Course Modes (Mode A | Mode P)	NA	NA	#Courses (A or P)	8	#Courses (A or P)	5	#Courses (A or P)	5	#Courses (P)	5
	11	EVALUATION	TEAM OF 4	Research Publications	NA	NA	Scopus Journal	1	WoS Journal	3	WoS Journal	1	Scopus Journal	1
	12		TEAM OF 4	Startup Registration	NA	NA	NA	NA	NA	NA	#LLP	1	NA	NA
	13		TEAM OF 4	Patent Filing	NA	NA	NA	NA	NA	NA	#Utility Patent	1	NA	NA
	14		TEAM OF 4	Patent Publishing	NA	NA	NA	NA	#Design Patents	1	#Design Patents	2	#Design Patents	1
	15		TEAM OF 4	Consultancy	NA	NA	NA	NA	NA	NA	NA	NA	#Projects	2

Y22 CE

(DEEMED TO BE UNIVERSITY)

Y22 ACADEMIC STRUCTURE & FLEXIBILITIES FOR BACHELOR OF TECHNOLOGY - CIVIL ENGINEERING

MAJOR FLEXIBILITY / PROGRAM ADD-ON	NO MAJOR FLEXIBILITY			Major Flexibility - HONORS			Major Flexibility - HONORS through RESEARCH			Major Flexibility - HONORS through INNOVATION			Major Flexibility - HONORS through EXPERIENTIAL LEARNING		
	Sl No	Course Category	Min. Credits	Sl No	Course Category	Min. Credits	Sl No	Course Category	Min. Credits	Sl No	Course Category	Min. Credits	Sl No	Course Category	Min. Credits
NO PROGRAM ADD-ON	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18
	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5
	3	ESC	31.5	3	ESC	31.5	3	ESC	31.5	3	ESC	31.5	3	ESC	31.5
	4	PCC	39	4	PCC	53	4	PCC	49	4	PCC	49	4	PCC	49
	5	FCC	9	5	FCC	9	5	FCC	9	5	FCC	9	5	FCC	9
	6	SDC	6	6	SDC	12	6	SDC	10	6	SDC	12	6	SDC	12
	7	PEC	14	7	PEC	14	7	PEC	14	7	PEC	14	7	PEC	14
	8	PRI	14	8	PRI	14	8	PRI	20	8	PRI	18	8	PRI	18
	9	OEC	9	9	OEC	9	9	OEC	9	9	OEC	9	9	OEC	9
	10	VAC	0	10	VAC	0	10	VAC	0	10	VAC	0	10	VAC	0
	11	AUC	0	11	AUC	0	11	AUC	0	11	AUC	0	11	AUC	0
	12	SIL	4	12	SIL	4	12	SIL	4	12	SIL	4	12	SIL	4
	GRAD REQUIREMENTS		**168**	GRAD REQUIREMENTS		**188**	GRAD REQUIREMENTS		**188**	GRAD REQUIREMENTS		**188**	GRAD REQUIREMENTS		**188**
Program Add-On **SPECIALIZATION**	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18
	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5
	3	ESC	31.5	3	ESC	31.5	3	ESC	31.5	3	ESC	31.5	3	ESC	31.5
	4	PCC	39	4	PCC	53	4	PCC	49	4	PCC	49	4	PCC	49
	5	FCC	9	5	FCC	9	5	FCC	9	5	FCC	9	5	FCC	9
	6	SDC	8	6	SDC	14	6	SDC	12	6	SDC	14	6	SDC	14
	7	PEC	17	7	PEC	22	7	PEC	22	7	PEC	22	7	PEC	22
	8	PRI	14	8	PRI	14	8	PRI	20	8	PRI	18	8	PRI	18
	9	OEC	9	9	OEC	9	9	OEC	9	9	OEC	9	9	OEC	9
	10	VAC	0	10	VAC	0	10	VAC	0	10	VAC	0	10	VAC	0
	11	AUC	0	11	AUC	0	11	AUC	0	11	AUC	0	11	AUC	0
	12	SIL	4	12	SIL	4	12	SIL	4	12	SIL	4	12	SIL	4
	GRAD REQUIREMENTS		**173**	GRAD REQUIREMENTS		**198**	GRAD REQUIREMENTS		**198**	GRAD REQUIREMENTS		**198**	GRAD REQUIREMENTS		**198**
Program Add-On **MINOR**	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18
	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5
	3	ESC	31.5	3	ESC	31.5	3	ESC	31.5	3	ESC	31.5	3	ESC	31.5
	4	PCC	39	4	PCC	53	4	PCC	49	4	PCC	49	4	PCC	49
	5	FCC	9	5	FCC	9	5	FCC	9	5	FCC	9	5	FCC	9
	6	MIN	16	6	MIN	16	6	MIN	16	6	MIN	16	6	MIN	16
	7	SDC	10	7	SDC	16	7	SDC	14	7	SDC	16	7	SDC	16
	8	PEC	14	8	PEC	14	8	PEC	14	8	PEC	14	8	PEC	14
	9	PRI	14	9	PRI	14	9	PRI	20	9	PRI	18	9	PRI	18
	10	OEC	9	10	OEC	9	10	OEC	9	10	OEC	9	10	OEC	9
	11	VAC	0	11	VAC	0	11	VAC	0	11	VAC	0	11	VAC	0
	12	AUC	0	12	AUC	0	12	AUC	0	12	AUC	0	12	AUC	0
	13	SIL	4	13	SIL	4	13	SIL	4	13	SIL	4	13	SIL	4
	GRAD REQUIREMENTS		**188**	GRAD REQUIREMENTS		**208**	GRAD REQUIREMENTS		**208**	GRAD REQUIREMENTS		**208**	GRAD REQUIREMENTS		**208**
Program Add-On **DOUBLE MAJOR**	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18	1	HAS	18
	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5	2	BSC	23.5
	3	ESC	31.5	3	ESC	31.5	3	ESC	31.5	3	ESC	31.5	3	ESC	31.5
	4	PCC	39	4	PCC	53	4	PCC	49	4	PCC	49	4	PCC	49
	5	FCC	6	5	FCC	6	5	FCC	6	5	FCC	6	5	FCC	6
	6	MAJOR II	38	6	MAJOR II	38	6	MAJOR II	38	6	MAJOR II	38	6	MAJOR II	38
	7	SDC	6	7	SDC	12	7	SDC	14	7	SDC	16	7	SDC	16
	8	PEC	14	8	PEC	14	8	PEC	14	8	PEC	14	8	PEC	14
	9	PRI	18	9	PRI	18	9	PRI	20	9	PRI	18	9	PRI	18
	10	VAC	0	10	VAC	0	10	VAC	0	10	VAC	0	10	VAC	0
	11	AUC	0	11	AUC	0	11	AUC	0	11	AUC	0	11	AUC	0
	12	SIL	4	12	SIL	4	12	SIL	4	12	SIL	4	12	SIL	4
	GRAD REQUIREMENTS		**198**	GRAD REQUIREMENTS		**218**	GRAD REQUIREMENTS		**218**	GRAD REQUIREMENTS		**218**	GRAD REQUIREMENTS		**218**

(DEEMED TO BE UNIVERSITY)

Y22 ACADEMIC REGULATIONS & EVALUATION TARGETS FOR AWARD OF DEGREES FROM BACHELOR OF TECHNOLOGY - CIVIL ENGINEERING

Y22 CE

MAJOR FLEXIBILITY / PROGRAM ADD-ON	Sl No	REGUL/ EVAL	INDV/ TEAM	Regulation	NO MAJOR FLEXIBILITY		Major Flexibility - HONORS		Major Flexibility - HONORS through RESEARCH		Major Flexibility - HONORS through INNOVATION		Major Flexibility - HONORS through EXPERIENTIAL LEARNING	
					Measure	Min. Requirement	Measure	Min. Requirement	Measure	Min. Requirement	Measure	Min. Requirement	Measure	Min. Requirement
NO PROGRAM ADD-ON	1	REGULATION	INDIVIDUAL	Min Credits	Credits	168	Credits	188	Credits	188	Credits	188	Credits	188
	2		INDIVIDUAL	Min CGPA	CGPA	4.75	8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT	
	3		INDIVIDUAL	SGPA Consistency	NA	NA	All Semesters	8	All Semesters	8	All Semesters	8	All Semesters	8
	3		INDIVIDUAL	Value Added Courses	#Courses	3	#Courses	4	#Courses	3	#Courses	3	#Courses	6
	4		INDIVIDUAL	Audit Courses	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	5		INDIVIDUAL	Audit Courses for Career Enhancement	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	6		INDIVIDUAL	Specialization Stream	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7		TEAM OF 6	Social Internship	#weeks	3	#weeks	3	#weeks	3	#weeks	3	#weeks	3
	8		INDIVIDUAL	Technical Internship	#weeks	4	#weeks	4	#weeks	4	#weeks	4	#weeks	4
	9		INDIVIDUAL	SDC Stream	NA	NA	NA	NA	NA	NA	4 Cr from Entrepreneurship SDC		NA	NA
	10		INDIVIDUAL	Course Modes (Mode A | Mode P)	NA	NA	#Courses (A or P)	8	#Courses (A or P)	5	#Courses (A or P)	5	#Courses (P)	5
	11	EVALUATION	TEAM OF 4	Research Publications	NA	NA	Scopus Journal	1	WoS Journal	3	WoS Journal	1	Scopus Journal	1
	12		TEAM OF 4	Startup Registration	NA	NA	NA	NA	NA	NA	#LLP	1	NA	NA
	13		TEAM OF 4	Patent Filing	NA	NA	NA	NA	NA	NA	#Utility Patent	1	NA	NA
	14		TEAM OF 4	Patent Publishing	NA	NA	NA	NA	#Design Patents	1	#Design Patents	2	#Design Patents	1
	15		TEAM OF 4	Consultancy	NA	NA	NA	NA	NA	NA	NA	NA	#Projects	2
Program Add-On SPECIALIZATION	1	REGULATION	INDIVIDUAL	Min Credits	Credits	173	Credits	198	Credits	198	Credits	198	Credits	198
	2		INDIVIDUAL	Min CGPA	CGPA	6.75	8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT	
	3		INDIVIDUAL	SGPA Consistency	NA	NA	All Semesters	8	All Semesters	8	All Semesters	8	All Semesters	8
	3		INDIVIDUAL	Value Added Courses	#Courses	3	#Courses	4	#Courses	3	#Courses	3	#Courses	6
	4		INDIVIDUAL	Audit Courses	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	5		INDIVIDUAL	Audit Courses for Career Enhancement	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	6		INDIVIDUAL	Specialization Stream	All 17 credits from same specialization		All 22 credits from same specialization		All 22 credits from same specialization		All 22 credits from same specialization		All 22 credits from same specialization	
	7		TEAM OF 6	Social Internship	#weeks	3	#weeks	3	#weeks	3	#weeks	3	#weeks	3
	8		INDIVIDUAL	Technical Internship	#weeks	4	#weeks	4	#weeks	4	#weeks	4	#weeks	4
	9		INDIVIDUAL	SDC Stream	2 Cr from Specialization SDC		4 Cr from Specialization SDC		4 Cr from Specialization SDC		4 Cr from Entrepreneurship SDC		NA	NA
	10		INDIVIDUAL	Course Modes (Mode A | Mode P)	NA	NA	#Courses (A or P)	8	#Courses (A or P)	5	#Courses (A or P)	5	#Courses (P)	5
	11	EVALUATION	TEAM OF 4	Research Publications	NA	NA	1 Scopus Conference & 1 Scopus Journal		WoS Journal	3	WoS Journal	1	Scopus Journal	1
	12		TEAM OF 4	Startup Registration	NA	NA	NA	NA	NA	NA	#LLP	1	NA	NA
	13		TEAM OF 4	Patent Filing	NA	NA	NA	NA	NA	NA	#Utility Patent	1	NA	NA
	14		TEAM OF 4	Patent Publishing	NA	NA	NA	NA	#Design Patents	1	#Design Patents	2	#Design Patents	1
	15		TEAM OF 4	Consultancy	NA	NA	NA	NA	NA	NA	NA	NA	#Projects	2
Program Add-On MINOR	1	REGULATION	INDIVIDUAL	Min Credits	Credits	188	Credits	208	Credits	208	Credits	208	Credits	208
	2		INDIVIDUAL	Min CGPA	CGPA	6.75	8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT	
	3		INDIVIDUAL	SGPA Consistency	NA	NA	All Semesters	8	All Semesters	8	All Semesters	8	All Semesters	8
	3		INDIVIDUAL	Value Added Courses	#Courses	3	#Courses	4	#Courses	3	#Courses	3	#Courses	6
	4		INDIVIDUAL	Audit Courses	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	5		INDIVIDUAL	Audit Courses for Career Enhancement	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	6		INDIVIDUAL	Minor Stream	All (16+4) Cr from selected Minor Program		All (16+4) Cr from selected Minor Program		All (16+4) Cr from selected Minor Program		All (16+4) Cr from selected Minor Program		All (16+4) Cr from selected Minor Program	
	7		TEAM OF 6	Social Internship	#weeks	3	#weeks	3	#weeks	3	#weeks	3	#weeks	3
	8		INDIVIDUAL	Technical Internship	#weeks	4	#weeks	4	#weeks	4	#weeks	4	#weeks	4
	9		INDIVIDUAL	SDC Stream	4 Cr from Minor Degree SDC		4 Cr from Minor Degree SDC		4 Cr from Minor Degree SDC		4 Cr from Entrepreneurship SDC 4 Cr from Minor Program SDC		4 Cr from Minor Degree SDC	
	10		INDIVIDUAL	Course Modes (Mode A | Mode P)	NA	NA	#Courses (A or P)	8	#Courses (A or P)	5	#Courses (A or P)	5	#Courses (P)	5
	11	EVALUATION	TEAM OF 4	Research Publications	NA	NA	Scopus Journal	1	WoS Journal	3	WoS Journal	1	Scopus Journal	1
	12		TEAM OF 4	Startup Registration	NA	NA	NA	NA	NA	NA	#LLP	1	NA	NA
	13		TEAM OF 4	Patent Filing	NA	NA	NA	NA	NA	NA	#Utility Patent	1	NA	NA
	14		TEAM OF 4	Patent Publishing	NA	NA	NA	NA	#Design Patents	1	#Design Patents	2	#Design Patents	1
	15		TEAM OF 4	Consultancy	NA	NA	NA	NA	NA	NA	NA	NA	#Projects	2
Program Add-On DOUBLE MAJOR	1	REGULATION	INDIVIDUAL	Min Credits	Credits	198	Credits	218	Credits	218	Credits	218	Credits	218
	2		INDIVIDUAL	Min CGPA	CGPA	7.75	8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT		8.5 CGPA + CLEAR ALL IN 1ST ATTEMPT	
	3		INDIVIDUAL	SGPA Consistency	All Semesters	6.75	All Semesters	8	All Semesters	8	All Semesters	8	All Semesters	8
	3		INDIVIDUAL	Value Added Courses	#Courses	3	#Courses	4	#Courses	3	#Courses	3	#Courses	6
	4		INDIVIDUAL	Audit Courses	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	5		INDIVIDUAL	Audit Courses for Career Enhancement	#Courses	4	#Courses	4	#Courses	4	#Courses	4	#Courses	4
	6		INDIVIDUAL	Second Major Stream	All 38 Cr from PCC+FCC courses of the Selected Second Major Stream		All 38 Cr from PCC+FCC courses of the Selected Second Major Stream		All 38 Cr from PCC+FCC courses of the Selected Second Major Stream		All 38 Cr from PCC+FCC courses of the Selected Second Major Stream		All 38 Cr from PCC+FCC courses of the Selected Second Major Stream	
	7		TEAM OF 6	Social Internship	#weeks	3	#weeks	3	#weeks	3	#weeks	3	#weeks	3
	8		INDIVIDUAL	Technical Internship	#weeks	4	#weeks	4	#weeks	4	#weeks	4	#weeks	4
	9		INDIVIDUAL	SDC Stream	2 Cr from MAJOR-II Stream		2 Cr from MAJOR-II Stream		2 Cr from MAJOR-II Stream		4 Cr from Entrepreneurship SDC 2 Cr from MAJOR-II Stream		4 Cr from MAJOR-II Stream	
	10		INDIVIDUAL	Course Modes (Mode A | Mode P)	NA	NA	#Courses (A or P)	8	#Courses (A or P)	5	#Courses (A or P)	5	#Courses (P)	5
	11	EVALUATION	TEAM OF 4	Research Publications	NA	NA	Scopus Journal	1	WoS Journal	3	WoS Journal	1	Scopus Journal	1
	12		TEAM OF 4	Startup Registration	NA	NA	NA	NA	NA	NA	#LLP	1	NA	NA
	13		TEAM OF 4	Patent Filing	NA	NA	NA	NA	NA	NA	#Utility Patent	1	NA	NA
	14		TEAM OF 4	Patent Publishing	NA	NA	NA	NA	#Design Patents	1	#Design Patents	2	#Design Patents	1
	15		TEAM OF 4	Consultancy	NA	NA	NA	NA	NA	NA	NA	NA	#Projects	2

Y22 - B.TECH PROGRAM STRUCTURE																						
Sl No	CATEGORY	COURSE CODE	COURSE TITLE	SHORT NAME	MODE	L	T	P	S	Cr	CH	Pre-Requisite	CSE	CSIT	AIDS	ECS	ECE	EEE	IOT	BT	ME	CE
1	AUC	22UC0016	GENDER & SOCIAL EQUALITY	GSE	R	2	0	0	0	0	2	NIL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
2	AUC	22UC0019	ESSENCE OF INDIAN KNOWLEDGE TRADITION	EIKT	R	2	0	0	0	0	2	NIL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
3	AUC	22UC0008	INDIAN CONSTITUTION	IC	R	2	0	0	0	0	2	NIL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
4	AUC	22UC0009	ECOLOGY & ENVIRONMENT	E&E	R	2	0	0	0	0	2	NIL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
5	AUC	22UC0020	INDIAN KNOWLEDGE SYSTEMS - ENGINEERING ELECTIVE	IKS	R	2	0	0	0	0	2	NIL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
6	AUC	21UC0013	GLOBAL LOGIC BUILDING CONTEST PRACTICUM	GLBCP	R	0	0	0	2	0	2	NIL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
7	AUC	21UC0014	GLOBAL LOGIC BUILDING CONTEST PRACTICUM	GLBCP	R	0	0	0	2	0	2	NIL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
8	AUC	21UC0015	GLOBAL LOGIC BUILDING CONTEST PRACTICUM	GLBCP	R	0	0	0	2	0	2	NIL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
9	HAS	22UC1101	INTEGRATED PROFESSIONAL ENGLISH	IPE	R	0	0	4	0	2	4	NIL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
10	HAS	22UC1202	ENGLISH PROFICIENCY	EP	R	0	0	4	0	2	4	NIL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
11	HAS	22UC2103	ESSENTIAL SKILLS FOR EMPLOYABILITY	ESE	R	0	0	4	0	2	4	NIL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
12	HAS	22UC2204	CORPORATE READINESS SKILLS	CRS	R	0	0	4	0	2	4	NIL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
13	HAS	22UC0010	UNIVERSAL HUMAN VALUES & PROFESSIONAL ETHICS	UHV&PE	R	2	0	0	0	2	2	NIL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
14	HAS	22UC1203	DESIGN THINKING AND INNOVATION	DTI	R	0	0	4	0	2	4	NIL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
15	HAS	22UC0012	INNOVATION MANAGEMENT	IM	R	0	0	4	0	2	4	NIL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
16	HAS	22UC0021	SOCIAL IMMERSIVE LEARNING	SIL	R	0	0	0	4	1	4	NIL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
17	HAS	22UC0022	SOCIAL IMMERSIVE LEARNING	SIL	R	0	0	0	4	1	4	NIL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
18	HAS	22UC0023	SOCIAL IMMERSIVE LEARNING	SIL	R	0	0	0	4	1	4	NIL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
19	HAS	22UC0024	SOCIAL IMMERSIVE LEARNING	SIL	R	0	0	0	4	1	4	NIL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
20	HAS	22MBXXXX	MANAGEMENT ELECTIVE	ME	R	2	0	0	0	2	2	NIL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
21	HAS	22FLXXXX	FOREIGN LANGUAGE ELECTIVE	FLE	R	2	0	0	0	2	2	NIL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
			TOTAL CREDITS										**22**	**22**	**22**	**22**	**22**	**22**	**22**	**22**	**22**	**22**
22	BSC	22MT1101	MATHEMATICS ELECTIVE - 1 (MFC)	MFC	R	2	2	0	2	4.5	6	NIL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
23	BSC	22MT2102	MATHEMATICS ELECTIVE - 2 (MFE)	MFE	R	2	1	0	0	3	3	NIL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
24	BSC	22MTXXXX	MATHEMATICS ELECTIVE - 3	ME-3	R	2	2	0	0	4	4	RELEVENT COURSE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Sl No	CATEGORY	COURSE CODE	COURSE TITLE	SHORT NAME	MODE	L	T	P	S	Cr	CH	Pre-Requisite	CSE	CSIT	AIDS	ECS	ECE	EEE	IOT	BT	ME	CE
25	BSC	22MTXXXX	MATHEMATICS ELECTIVE - 4	ME-4	R	2	2	0	0	4	4	RELEVENT COURSE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
26	BSC	22SCXXXX	SCIENCE ELECTIVE-1	SCE-1	R	3	0	2	0	4	5	NIL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
27	BSC	22SCXXXX	SCIENCE ELECTIVE-2	SCE-2	R	3	0	2	0	4	5	NIL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
28	BSC	22SCXXXX	SCIENCE ELECTIVE-3	SCE-3	R	3	0	0	0	3	3	NIL								Y		
			TOTAL CREDITS										**24**	**24**	**23.5**	**24**	**24**	**24**	**24**	**27**	**24**	**24**
29	ESC	22SC1101	COMPUTATIONAL THINKING FOR STRUCTURED DESIGN	CTSD	R	3	0	2	6	5.5	11	NIL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
30	ESC	22SC1202	DATA STRUCTURES	DST	R	3	0	2	4	5	9	CTSD	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
31	ESC	22ME1103	DESIGN TOOLS WORKSHOP	DTW	R	0	0	4	0	2	4	NIL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
32	ESC	22SC1209	IOT WORKSHOP	IOTW	R	0	0	4	0	2	4	NIL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
33	ESC	22EC1202	COMPUTER ORGANIZATION & ARCHITECTURE	COA	R	2	0	0	0	2	2	NIL	Y	Y	Y	Y	Y	Y	Y			
34	ESC	22EC1203	DESIGN OF BASIC ELECTRONIC CIRCUITS	DBEC	R	3	0	0	0	3	3	NIL				Y	Y		Y			
35	ESC	22EE1201	BASIC ELECTRICAL & ELECTRONICS ENGINEERING	BEEE	R	3	1	2	0	5	6	NIL						Y				
36	ESC	22EE2105	BASIC ELECTRICAL & ELECTRONICS CIRCUITS	BEEC	R	2	0	0	0	2	2	NIL									y	
37	ESC	22CS1201	OBJECT ORIENTED PROGRAMMING	OOP	R	2	0	2	0	3	4	CTSD				Y		Y		Y	Y	Y
38	ESC	22AD1202	OBJECT ORIENTED PROGRAMMING SYSTEM (PYTHON)	OOP	R	3	0	2	4	5	9	CTSD			Y							
39	ESC	22BT1202	BIOCHEMICAL THERMODYNAMICS	BCT	R	2	0	0	0	2	2	NIL								Y		
40	ESC	22UC3108	PROBLEM SOLVING & REASONING SKILLS-1	PSRS-1	R	0	0	0	4	1	4	NIL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
41	ESC	22UC3209	PROBLEM SOLVING & REASONING SKILLS-2	PSRS-2	R	0	0	0	4	1	4	NIL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
42	ESC	22EC1101	DIGITAL LOGIC AND PROCESSORS	DLP	R	3	0	2	0	4	5	NIL	Y	Y	Y	Y	Y	Y	Y			
43	ESC	22SC1203	COMPUTATIONAL THINKING FOR OBJECT-ORIENTED DESIGN	CTOD	R	3	0	2	4	5	9	CTSD	Y	Y								
44	ESC	22ME2204	WORKSHOP PRACTICES FOR ENGINEERS	WPE	R	0	0	4	0	2	4	NIL									Y	Y
45	ESC	22CE1002	ENGINEERING GRAPHICS	EG	R	0	0	4	0	2	4	NIL										Y
46	ESC	22ME1002	ENGINEERING GRAPHICS & 2D MODELLING	EGM	R	1	0	4	0	3	5	NIL									Y	
47	ESC	22CE2102	FLUID MECHANICS & HYDRAULIC MACHINES	FMHM	R	3	0	2	0	4	5	NIL									Y	Y
48	ESC	22CE1201	ENGINEERING GEOLOGY	EGY	R	3	0	2	0	4	5	NIL										Y
			TOTAL CREDITS										**28**	**28**	**27.5**	**29**	**26**	**31**	**26**	**22**	**31**	**32**

Sl No	CATEGORY	COURSE CODE	COURSE TITLE	SHORT NAME	MODE	L	T	P	S	Cr	CH	Pre-Requisite	CSE	CSIT	AIDS	ECS	ECE	EEE	IOT	BT	ME	CE
49	PCC	22CS2103R	ADVANCED OBJECT ORIENTED PROGRAMMING	AOOP	R	2	0	2	4	4	8	CTOD	Y	Y								
50	PCC	22CS2103A	ADVANCED OBJECT ORIENTED PROGRAMMING	AOOP	A	4	0	4	0	6	8	CTOD	Y	Y								
51	PCC	22CS2103P	ADVANCED OBJECT ORIENTED PROGRAMMING	AOOP	P	4	0	4	0	6	8	CTOD	Y	Y								
52	PCC	22CS2205R	DESIGN & ANALYSIS OF ALGORITHMS	DAA	R	2	0	2	4	4	8	DS	Y	Y	Y							
53	PCC	22CS2205A	DESIGN & ANALYSIS OF ALGORITHMS	DAA	A	4	0	4	0	6	8	DS	Y	Y	Y							
54	PCC	22CS2205P	DESIGN & ANALYSIS OF ALGORITHMS	DAA	P	4	0	4	0	6	8	DS	Y	Y	Y							
55	PCC	22CI3004R	ENTERPRISE PROGRAMMING	EPG	R	2	0	2	4	4	8	CTOD	Y	Y		Y						
56	PCC	22CI3004A	ENTERPRISE PROGRAMMING	EPG	A	3	0	4	4	6	11	CTOD	Y	Y		Y						
57	PCC	22CI3004P	ENTERPRISE PROGRAMMING	EPG	P	3	0	4	4	6	11	CTOD	Y	Y		Y						
58	PCC	22EC2210R	NETWORK PROTOCOLS & SECURITY	NPS	R	3	0	2	0	4	5	COA	Y	Y	Y	Y	Y		Y			
59	PCC	22EC2210A	NETWORK PROTOCOLS & SECURITY	NPS	A	4	0	4	0	6	8	COA	Y	Y	Y	Y	Y		Y			
60	PCC	22EC2210P	NETWORK PROTOCOLS & SECURITY	NPS	P	4	0	4	0	6	8	COA	Y	Y	Y	Y	Y		Y			
61	PCC	22AD2001R	DATA DRIVEN ARTIFICIAL INTELLIGENT SYSTEMS	DDAIS	R	2	0	2	0	3	4	CTSD	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
62	PCC	22AD2001A	DATA DRIVEN ARTIFICIAL INTELLIGENT SYSTEMS	DDAIS	A	3	0	4	0	5	7	CTSD	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
63	PCC	22AD2001P	DATA DRIVEN ARTIFICIAL INTELLIGENT SYSTEMS	DDAIS	P	3	0	4	0	5	7	CTSD	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
64	PCC	22CS2104R	OPERATING SYSTEMS	OS	R	2	0	2	0	3	4	DLP	Y	Y	Y	Y						
65	PCC	22CS2104A	OPERATING SYSTEMS	OS	A	3	0	4	0	5	7	DLP	Y	Y	Y	Y						
66	PCC	22CS2104P	OPERATING SYSTEMS	OS	P	3	0	4	0	5	7	DLP	Y	Y	Y	Y						
67	PCC	22CS4106	PARALLEL & DISTRIBUTING COMPUTING	PDC	R	2	0	2	0	3	4	PDC	Y									
68	PCC	22EC2106	PROCESSORS & CONTROLLERS	PRC	R	3	0	2	2	4.5	7	DDCA				Y	Y	Y	Y			
69	PCC	22CI2001	ADAPTIVE SOFTWARE ENGINEERING	ASE	R	2	1	0	0	3	3	NIL	Y	Y	Y	Y						
70	PCC	22AD2102R	DATABASE MANAGEMENT SYSTEMS	DBMS	R	2	0	2	0	3	4	COA	Y	Y	Y	Y			Y			
71	PCC	22AD2102A	DATABASE MANAGEMENT SYSTEMS	DBMS	A	3	0	4	0	5	7	COA	Y	Y	Y				Y			
72	PCC	22AD2102P	DATABASE MANAGEMENT SYSTEMS	DBMS	P	3	0	4	0	5	7	COA	Y	Y	Y				Y			
73	PCC	22CS2002R	AUTOMATA THEORY & FORMAL LANGUAGES	ATFL	R	2	1	0	0	3	3	NIL	Y	Y								
74	PCC	22CS2002A	AUTOMATA THEORY & FORMAL LANGUAGES	ATFL	A	3	1	2	0	5	6	NIL	Y	Y								

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75	PCC	22CS2002F	AUTOMATA THEORY & FORMAL LANGUAGES	ATFL	P	3	1	2	0	5	6	NIL	Y	Y								
76	PCC	22EC2104	ANALOG ELECTRONIC CIRCUIT DESIGN	AECD	R	3	0	2	2	4.5	7	BEEC				Y	Y	Y	Y			
77	PCC	22EC2105R	SIGNALS & COMMUNICATION SYSTEMS	SCS	R	3	0	0	0	3	3	LACE				Y	Y					
78	PCC	22EC2105A	SIGNALS & COMMUNICATION SYSTEMS	SCS	A	4	0	2	0	5	6	LACE					Y					
79	PCC	22EC2105P	SIGNALS & COMMUNICATION SYSTEMS	SCS	P	4	0	2	0	5	6	LACE					Y					
80	PCC	22EC2209R	ELECTROMAGNETIC WAVES & TRANSMISSION LINES	EMWTL	R	3	0	0	0	3	3	LACE					Y					
81	PCC	22EC2209A	ELECTROMAGNETIC WAVES & TRANSMISSION LINES	EMWTL	R	4	0	2	0	5	6	LACE					Y					
82	PCC	22EC2208R	DIGITAL COMMUNICATION	DC	R	3	0	2	2	4.5	7	SCS					Y					
83	PCC	22EC2208A	DIGITAL COMMUNICATION	DC	P	4	0	4	2	6.5	10	SCS					Y					
84	PCC	22EC2208P	DIGITAL COMMUNICATION	DC	P	4	0	4	2	6.5	10	SCS					Y					
85	PCC	22EC2211R	VLSI DESIGN	VLSID	R	3	0	2	2	4.5	7	AECD					Y					
86	PCC	22EC2211A	VLSI DESIGN	VLSID	A	4	0	4	2	6.5	10	AECD					Y					
87	PCC	22EC2211P	VLSI DESIGN	VLSID	P	4	0	4	2	6.5	10	AECD					Y					
88	PCC	22EC3112R	DISCRETE TIME SIGNAL PROCESSING	DTSP	R	3	0	2	0	4	5	DC					Y					
89	PCC	22EC3112A	DISCRETE TIME SIGNAL PROCESSING	DTSP	A	4	0	4	0	6	8	DC					Y					
90	PCC	22EC3112P	DISCRETE TIME SIGNAL PROCESSING	DTSP	P	4	0	4	0	6	8	DC					Y					
91	PCC	22EC3107	OBJECT ORIENTED PROGRAMMING	OOP	R	3	0	2	0	4	5	NIL					Y		Y			
92	PCC	22EE3107R	CONTROL SYSTEMS	CS	R	2	0	2	0	3	4	BEEC					Y	Y				
93	PCC	22EE3107A	CONTROL SYSTEMS	CS	A	3	0	4	0	5	7	BEEC						Y				
94	PCC	22EE3107P	CONTROL SYSTEMS	CS	P	3	0	4	0	5	7	BEEC						Y				
95	PCC	22EE2204R	ELECTRICAL POWER GENERATION, TRANSMISSION & DISTRIBUTION	EPGTD	R	2	1	0	0	3	3	BEEC						Y				
96	PCC	22EE2204A	ELECTRICAL POWER GENERATION, TRANSMISSION & DISTRIBUTION	EPGTD	A	3	2	0	0	5	5	BEEC						Y				
97	PCC	22EE2204P	ELECTRICAL POWER GENERATION, TRANSMISSION & DISTRIBUTION	EPGTD	P	3	2	0	0	5	5	BEEC						Y				
98	PCC	22EE2101	ELECTRICAL CIRCUITS	ELC	R	2	1	2	0	4	5	BEEC						Y				
99	PCC	22EE2102	ELECTRICAL MACHINES	ELM	R	3	0	2	0	4	5	BEEC						Y				

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100	PCC	22EE3106R	POWER SYSTEM ANALYSIS & STABILITY	PSAS	R	2	0	2	0	3	4	EPGTD						Y				
101	PCC	22EE3106A	POWER SYSTEM ANALYSIS & STABILITY	PSAS	A	3	0	4	0	5	7	EPGTD						Y				
102	PCC	22EE3106P	POWER SYSTEM ANALYSIS & STABILITY	PSAS	P	3	0	4	0	5	7	EPGTD						Y				
103	PCC	22EE2205R	POWER ELECTRONICS	PES	R	2	0	2	0	3	4	ELC						Y				
104	PCC	22EE2205A	POWER ELECTRONICS	PES	A	3	0	4	0	5	7	ELC						Y				
105	PCC	22EE2205P	POWER ELECTRONICS	PES	P	3	0	4	0	5	7	ELC						Y				
106	PCC	22EE3208R	POWER SYSTEM PROTECTION & CONTROL	PSPC	R	2	0	2	0	3	4	ELC						Y				
107	PCC	22EE3208A	POWER SYSTEM PROTECTION & CONTROL	PSPC	A	3	0	4	0	5	7	ELC						Y				
108	PCC	22EE3208P	POWER SYSTEM PROTECTION & CONTROL	PSPC	P	3	0	4	0	5	7	ELC						Y				
109	PCC	22EE3209R	AI TECHNIQUES FOR ELECTRICAL ENGINEERING	AITEE	R	2	0	2	0	3	4	PSAS						Y				
110	PCC	22EE3209A	AI TECHNIQUES FOR ELECTRICAL ENGINEERING	AITEE	A	3	0	4	0	5	7	PSAS						Y				
111	PCC	22EE3209P	AI TECHNIQUES FOR ELECTRICAL ENGINEERING	AITEE	P	3	0	4	0	5	7	PSAS						Y				
112	PCC	22CI2202R	CONTINUOUS DELIVERY & DEVOPS	CDD	R	2	0	2	4	4	8	ASE		Y								
113	PCC	22CI2202R	CONTINUOUS DELIVERY & DEVOPS	CDD	A	3	0	4	4	6	11	ASE		Y								
114	PCC	22CI2202R	CONTINUOUS DELIVERY & DEVOPS	CDD	P	3	0	4	4	6	11	ASE		Y								
115	PCC	22CI2203	MANAGEMENT INFORMATION SYSTEMS	MIS	R	2	1	0	0	3	3	ASE		Y								
116	PCC	22AD2203R	MACHINE LEARNING	ML	R	2	0	2	4	4	8	PS			Y	Y						
117	PCC	22AD2203A	MACHINE LEARNING	ML	A	3	0	4	4	6	11	PS			Y							
118	PCC	22AD2203P	MACHINE LEARNING	ML	P	3	0	4	4	6	11	PS			Y							
119	PCC	22AD3207R	BIG DATA ANALYTICS	BDA	R	2	0	2	4	4	8	DWM			Y							
120	PCC	22AD3207A	BIG DATA ANALYTICS	BDA	A	3	0	4	4	6	11	DWM			Y							
121	PCC	22AD3207P	BIG DATA ANALYTICS	BDA	P	3	0	4	4	6	11	DWM			Y							
122	PCC	22AD3104R	DATA WAREHOUSING AND MINING	DWM	R	2	0	2	0	3	4	DBMS			Y							
123	PCC	22AD3104A	DATA WAREHOUSING AND MINING	DWM	A	3	0	4	0	5	7	DBMS			Y							
124	PCC	22AD3104P	DATA WAREHOUSING AND MINING	DWM	P	3	0	4	0	5	7	DBMS			Y							
125	PCC	22AD3206R	DATA ANALYTICS AND VISUALIZATION	DSV	R	2	0	2	0	3	4	PSQ			Y							

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126	PCC	22AD3206A	DATA ANALYTICS AND VISUALIZATION	DSV	A	3	0	4	0	5	7	PSQ			Y							
127	PCC	22AD3206P	DATA ANALYTICS AND VISUALIZATION	DSV	P	3	0	4	0	5	7	PSQ			Y							
128	PCC	22AD3105R	DEEP LEARNING	DL	R	2	0	2	4	4	8	ML			Y	Y						
129	PCC	22AD3105A	DEEP LEARNING	DL	A	3	0	4	4	6	11	ML			Y							
130	PCC	22AD3105P	DEEP LEARNING	DL	P	3	0	4	4	6	11	ML			Y							
131	PCC	22IN2101R	IOT PRINCIPLES & ARCHITECTURE	IOTPA	R	2	0	4	0	4	6	FITS							Y			
132	PCC	22IN2101A	IOT PRINCIPLES & ARCHITECTURE	IOTPA	A	3	0	6	0	6	9	FITS							Y			
133	PCC	22IN2101P	IOT PRINCIPLES & ARCHITECTURE	IOTPA	P	3	0	6	0	6	9	FITS							Y			
134	PCC	22IN2202R	EMBEDDED SYSTEMS DESIGN	ESD	R	2	0	2	4	4	8	PC							Y			
135	PCC	22IN2202A	EMBEDDED SYSTEMS DESIGN	ESD	A	3	0	4	4	6	11	PC							Y			
136	PCC	22IN2202P	EMBEDDED SYSTEMS DESIGN	ESD	P	3	0	4	4	6	11	PC							Y			
137	PCC	22IN2003R	REAL TIME OPERATING SYSTEMS	RTOS	R	2	0	2	0	3	4	DDCA							Y			
138	PCC	22IN2003A	REAL TIME OPERATING SYSTEMS	RTOS	A	3	0	4	0	5	7	DDCA							Y			
139	PCC	22IN2003P	REAL TIME OPERATING SYSTEMS	RTOS	P	3	0	4	0	5	7	DDCA							Y			
140	PCC	22IN2204R	CLOUD COMPUTING FOR IOT	CCIOT	R	2	0	4	0	4	6	IOTPA							Y			
141	PCC	22IN2204A	CLOUD COMPUTING FOR IOT	CCIOT	A	3	0	6	0	6	9	IOTPA							Y			
142	PCC	22IN2204P	CLOUD COMPUTING FOR IOT	CCIOT	P	3	0	6	0	6	9	IOTPA							Y			
143	PCC	22IN2205	COMMUNICATION TECHNOLOGY	CMT	R	3	0	2	0	4	5	LACE							Y			
144	PCC	22BT2103R	BIOCHEMISTRY	BC	R	2	0	2	0	3	4	NIL								Y		
145	PCC	22BT2103A	BIOCHEMISTRY	BC	A	3	0	4	0	5	7	NIL								Y		
146	PCC	22BT2103P	BIOCHEMISTRY	BC	P	3	0	4	0	5	7	NIL								Y		
147	PCC	22BT2104	MICROBIOLOGY	MB	R	2	0	2	0	3	4	NIL								Y		
148	PCC	22BT2105R	IMMUNOLOGY	IMM	R	2	0	4	0	4	6	NIL								Y		
149	PCC	22BT2105A	IMMUNOLOGY	IMM	A	3	1	4	0	6	8	NIL								Y		
150	PCC	22BT2105P	IMMUNOLOGY	IMM	P	3	1	4	0	6	8	NIL								Y		
151	PCC	22BT2206	MOLECULAR BIOLOGY	MB	R	3	0	0	0	3	3	NIL								Y		
152	PCC	22BT2207R	BIOANALYTICAL TECHNIQUES	BAT	R	2	0	2	0	3	4	BC								Y		

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153	PCC	22BT2207A	BIOANALYTICAL TECHNIQUES	BAT	A	3	0	4	0	5	7	BC								Y		
154	PCC	22BT2207P	BIOANALYTICAL TECHNIQUES	BAT	P	3	0	4	0	5	7	BC								Y		
155	PCC	22BT2208	TRANSPORT PROCESS IN BIOLOGICAL SYSTEMS	TPBS	R	2	0	4	0	4	6	NIL								Y		
156	PCC	22BT2209R	BIOCHEMICAL REACTION ENGINEERING	BCRE	R	2	0	4	0	4	6	MB								Y		
157	PCC	22BT2209A	BIOCHEMICAL REACTION ENGINEERING	BCRE	A	3	1	4	0	6	8	MB								Y		
158	PCC	22BT2209P	BIOCHEMICAL REACTION ENGINEERING	BCRE	P	3	1	4	0	6	8	MB								Y		
159	PCC	22BT3110R	GENETIC ENGINEERING	GE	R	2	0	4	0	4	6	NIL								Y		
160	PCC	22BT3110A	GENETIC ENGINEERING	GE	A	3	1	4	0	6	8	NIL								Y		
161	PCC	22BT3110P	GENETIC ENGINEERING	GE	P	3	1	4	0	6	8	NIL								Y		
162	PCC	22BT3111	FERMENTATION TECHNOLOGY	FT	R	2	0	2	0	3	4	MB								Y		
163	PCC	22BT3212	PLANT AND ANIMAL BIOTECHNOLOGY	PABT	R	2	0	4	0	4	6	NIL								Y		
164	PCC	22BT3213R	DOWNSTREAM PROCESSING	DSP	R	2	0	4	0	4	6	BAT								Y		
165	PCC	22BT3213A	DOWNSTREAM PROCESSING	DSP	A	3	1	4	0	6	8	BAT								Y		
166	PCC	22BT3213P	DOWNSTREAM PROCESSING	DSP	P	3	1	4	0	6	8	BAT								Y		
167	PCC	22ME2105	MATERIAL SCIENCE AND METALLURGY	MSM	R	2	0	2	0	3	4	NIL									Y	
168	PCC	22ME2106	SOLID MECHANICS	SOM	R	3	0	2	0	4	5	EM									Y	Y
169	PCC	22ME2106A	SOLID MECHANICS	SOM	A	4	0	4	0	6	8	EM									Y	Y
170	PCC	22ME2106P	SOLID MECHANICS	SOM	P	4	0	4	0	6	8	EM									Y	Y
171	PCC	22ME2208	MANUFACTURING PROCESSES	MP	R	2	0	2	0	3	4	WPME									Y	
172	PCC	22ME2107	THERMODYNAMICS	TD	R	3	0	0	0	3	3	Nil									Y	
173	PCC	22ME3113R	MANUFACTURING TECHNOLOGY	MT	R	2	0	2	0	3	4	MP									Y	
174	PCC	22ME3113A	MANUFACTURING TECHNOLOGY	MT	A	3	0	4	0	5	7	MP									Y	
175	PCC	22ME3113P	MANUFACTURING TECHNOLOGY	MT	P	3	0	4	0	5	7	MP									Y	
176	PCC	22ME2209R	KINEMATICS & DYNAMICS OF MACHINES	KDOM	R	2	1	2	0	4	5	EM									Y	
177	PCC	22ME2209A	KINEMATICS & DYNAMICS OF MACHINES	KDOM	A	3	1	4	0	6	8	EM									Y	
178	PCC	22ME2209P	KINEMATICS & DYNAMICS OF MACHINES	KDOM	P	3	1	4	0	6	8	EM									Y	
179	PCC	22ME3112	THERMAL SYSTEMS ENGINEERING	ATS	R	3	0	0	4	4	7	TD									Y	

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180	PCC	22ME3215	DIGITAL MANUFACTURING & ROBOTICS	DMR	R	3	0	0	0	3	3	KDOM									Y	
181	PCC	22ME3110R	HEAT TRANSFER	HT	R	3	0	2	0	4	5	TD									Y	
182	PCC	22ME3110A	HEAT TRANSFER	HT	A	4	0	4	0	6	8	TD									Y	
183	PCC	22ME3110P	HEAT TRANSFER	HT	P	4	0	4	0	6	8	TD									Y	
184	PCC	22ME3111R	MECHANICAL ENGINEERING DESIGN	MED	R	3	0	0	0	3	3	SM									Y	
185	PCC	22ME3111A	MECHANICAL ENGINEERING DESIGN	MED	A	4	1	0	0	5	5	SM									Y	
186	PCC	22ME3111P	MECHANICAL ENGINEERING DESIGN	MED	P	4	1	0	0	5	5	SM									Y	
187	PCC	22ME3214R	MACHINE DESIGN	MD	R	2	0	0	4	3	6	MED									Y	
188	PCC	22ME3214A	MACHINE DESIGN	MD	A	3	1	0	4	5	8	MED									Y	
189	PCC	22ME3214P	MACHINE DESIGN	MD	P	3	1	0	4	5	8	MED									Y	
190	PCC	22CE2103R	SURVEYING	SVY	R	2	0	0	4	3	6	NIL										Y
191	PCC	22CE2103A	SURVEYING	SVY	A	3	0	2	4	5	9	NIL										Y
192	PCC	22CE2103P	SURVEYING	SVY	P	3	0	2	4	5	9	NIL										Y
193	PCC	22CE2204	BUILDING MATERIALS, PLANNING & DRAWING	BMPD	R	3	0	2	0	4	5	NIL										Y
194	PCC	22CE2205	STRUCTURAL ANALYSIS	STA	R	3	1	0	0	4	4	SM										Y
195	PCC	22CE2206	CONCRETE TECHNOLOGY	CT	R	2	0	2	0	3	4	NIL										Y
196	PCC	22CE2207R	GEOTECHNICAL ENGINEERING	GTE	R	3	0	2	0	4	5	NIL										Y
197	PCC	22CE2207A	GEOTECHNICAL ENGINEERING	GTE	A	4	0	4	0	6	8	NIL										Y
198	PCC	22CE2207P	GEOTECHNICAL ENGINEERING	GTE	P	4	0	4	0	6	8	NIL										Y
199	PCC	22CE3108R	DESIGN OF REINFORCED CONCRETE STRUCTURES	DRCS	R	3	0	2	0	4	5	SA										Y
200	PCC	22CE3108A	DESIGN OF REINFORCED CONCRETE STRUCTURES	DRCS	A	4	0	4	0	6	8	SA										Y
201	PCC	22CE3108P	DESIGN OF REINFORCED CONCRETE STRUCTURES	DRCS	P	4	0	4	0	6	8	SA										Y
202	PCC	22CE3109R	QUANTITY SURVEYING & ESTIMATION	QSE	R	3	0	0	0	3	3	SVY										Y
203	PCC	22CE3109A	QUANTITY SURVEYING & ESTIMATION	QSE	A	4	0	0	0	4	4	SVY										Y
204	PCC	22CE3109P	QUANTITY SURVEYING & ESTIMATION	QSE	P	4	0	0	0	4	4	SVY										Y
205	PCC	22CE3210R	ENVIRONMENTAL ENGINEERING	EVE	R	2	0	2	0	3	4	NIL										Y
206	PCC	22CE3210A	ENVIRONMENTAL ENGINEERING	EVE	A	3	0	4	0	5	7	NIL										Y

Sl No	CATEGORY	COURSE CODE	COURSE TITLE	SHORT NAME	MODE	L	T	P	S	Cr	CH	Pre-Requisite	CSE	CSIT	AIDS	ECS	ECE	EEE	IOT	BT	ME	CE
207	PCC	22CE3210P	ENVIRONMENTAL ENGINEERING	EVE	P	3	0	4	0	5	7	NIL										Y
208	PCC	22CE3211R	TRANSPORTATION ENGINEERING	TPE	R	3	0	2	0	4	5	NIL										Y
209	PCC	22CE3211A	TRANSPORTATION ENGINEERING	TPE	A	3	0	4	0	5	7	NIL										Y
210	PCC	22CE3211P	TRANSPORTATION ENGINEERING	TPE	P	3	0	4	0	5	7	NIL										Y
211	PCC		FLEXI-CORE - 1	FC-1	R	2	0	2	0	3	4	RELEVENT COURSE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
212	PCC		FLEXI-CORE - 2	FC-2	R	2	0	2	0	3	4	RELEVENT COURSE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
213	PCC		FLEXI-CORE - 3	FC-3	R	3	0	0	0	3	3	RELEVENT COURSE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
			TOTAL CREDITS										**43**	**47**	**47**	**49**	**56**	**47**	**51**	**51**	**49**	**48**
214	PEC		PROFESSIONAL ELECTIVE - 1	PE-1	R	2	0	2	4	4	8	RELEVENT COURSE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
215	PEC		PROFESSIONAL ELECTIVE - 1	PE-1	A	3	0	4	4	6	11	RELEVENT COURSE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
216	PEC		PROFESSIONAL ELECTIVE - 1	PE-1	P	3	0	4	4	6	11	RELEVENT COURSE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
217	PEC		PROFESSIONAL ELECTIVE - 2	PE-2	R	2	0	2	0	3	4	RELEVENT COURSE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
218	PEC		PROFESSIONAL ELECTIVE - 2	PE-2	A	3	0	4	0	5	7	RELEVENT COURSE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
219	PEC		PROFESSIONAL ELECTIVE - 2	PE-2	P	3	0	4	0	5	7	RELEVENT COURSE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
220	PEC		PROFESSIONAL ELECTIVE - 3	PE-3	R	2	0	2	4	4	8	RELEVENT COURSE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
221	PEC		PROFESSIONAL ELECTIVE - 3	PE-3	A	3	0	4	4	6	11	RELEVENT COURSE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
222	PEC		PROFESSIONAL ELECTIVE - 3	PE-3	P	3	0	4	4	6	11	RELEVENT COURSE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
223	PEC		PROFESSIONAL ELECTIVE - 4	PE-4	M	3	0	0	0	3	3	RELEVENT COURSE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
224	PEC		PROFESSIONAL ELECTIVE - 5	PE-5	R	3	0	0	0	3	3	RELEVENT COURSE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
225	PEC		PROFESSIONAL ELECTIVE - 5	PE-5	A	4	0	2	0	5	6	RELEVENT COURSE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
226	PEC		PROFESSIONAL ELECTIVE - 5	PE-5	P	4	0	2	0	5	6	RELEVENT COURSE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
			TOTAL CREDITS										**17**	**17**	**17**	**17**	**17**	**17**	**17**	**17**	**17**	**17**
227	SDC		SKILL DEVELOPMENT PROJECT - 1	SDP-1	R	0	0	2	4	2	6	RELEVENT COURSE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
228	SDC		SKILL DEVELOPMENT PROJECT - 1	SDP-1	A	0	0	6	4	4	10	RELEVENT COURSE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
229	SDC		SKILL DEVELOPMENT PROJECT - 1	SDP-1	P	0	0	6	4	4	10	RELEVENT COURSE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
230	SDC		SKILL DEVELOPMENT PROJECT - 2	SDP-2	R	0	0	2	4	2	6	RELEVENT COURSE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
231	SDC		SKILL DEVELOPMENT PROJECT - 2	SDP-2	A	0	0	6	4	4	10	RELEVENT COURSE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
232	SDC		SKILL DEVELOPMENT PROJECT - 2	SDP-2	P	0	0	6	4	4	10	RELEVENT COURSE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
233	SDC		SKILL DEVELOPMENT PROJECT - 3	SDP-3	R	0	0	2	4	2	6	RELEVENT COURSE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Sl No	CATEGORY	COURSE CODE	COURSE TITLE	SHORT NAME	MODE	L	T	P	S	Cr	CH	Pre-Requisite	CSE	CSIT	AIDS	ECS	ECE	EEE	IOT	BT	ME	CE
234	SDC		SKILL DEVELOPMENT PROJECT - 3	SDP-3	A	0	0	6	4	4	10	RELEVENT COURSE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
235	SDC		SKILL DEVELOPMENT PROJECT - 3	SDP-3	P	0	0	6	4	4	10	RELEVENT COURSE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
236	SDC		SKILL DEVELOPMENT PROJECT - 4 (SPECIALIZATION)	SDP-4	R	0	0	2	4	2	6	RELEVENT COURSE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
237	SDC		SKILL DEVELOPMENT PROJECT - 4 (SPECIALIZATION)	SDP-4	A	0	0	6	4	4	10	RELEVENT COURSE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
238	SDC		SKILL DEVELOPMENT PROJECT - 4 (SPECIALIZATION)	SDP-4	P	0	0	6	4	4	10	RELEVENT COURSE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
239	SDC		SKILL DEVELOPMENT PROJECT - 4 (MINOR - MULTI DISCIPLINARY)	SDP-4	A	0	0	6	4	4	10	RELEVENT COURSE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
240	SDC		TOOL BASED LEARNING - 1	TBL-1	R	0	0	0	4	0	4	RELEVENT COURSE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
241	SDC		TOOL BASED LEARNING - 2	TBL-2	R	0	0	0	4	0	4	RELEVENT COURSE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
			TOTAL CREDITS										**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**
242	PRI	22IE2040	SOCIAL INTERNSHIP	SIP	R	0	0	0	4	0	4	NIL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
243	PRI	22IE3041	TECHNICAL INTERNSHIP	TIP	R	0	0	0	8	0	8	NIL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
244	PRI	22IE3043	TERM PAPER	TP	R	0	0	4	0	2	4	NIL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
245	PRI	22IE4053R	ENGINEERING CAPSTONE PROJECT - PHASE 1	ECP-1	R	0	0	6	12	6	18	RELEVENT COURSE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
246	PRI	22IE4053A	ENGINEERING CAPSTONE PROJECT - PHASE 1	ECP-1	A	0	0	8	16	8	24	RELEVENT COURSE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
247	PRI	22IE4054R	ENGINEERING CAPSTONE PROJECT - PHASE 2	ECP-2	R	0	0	6	12	6	18	RELEVENT COURSE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
248	PRI	22IE4054A	ENGINEERING CAPSTONE PROJECT - PHASE 2	ECP-2	A	0	0	8	16	8	24	RELEVENT COURSE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
249	PRI	22IE4048	ENGINEERING PROJECT	EPJ	ALT	0	0	6	12	6	18	RELEVENT COURSE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
250	PRI	22IE4051	INDUSTRIAL INTERNSHIP - PHASE 1	IIP-1	ALT	0	0	0	24	6	24	RELEVENT COURSE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
251	PRI	22IE4052	INDUSTRIAL INTERNSHIP - PHASE 2	IIP-2	ALT	0	0	0	24	6	24	RELEVENT COURSE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
252	PRI	22IE4042	INDUSTRIAL INTERNSHIP	IIP	ALT	0	0	0	24	6	24	RELEVENT COURSE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
			TOTAL CREDITS										**14**	**14**	**14**	**14**	**14**	**14**	**14**	**14**	**14**	**14**
253	OEC		OPEN ELECTIVE - 1	OE-1	R/M	3	0	0	0	3	3	NIL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
254	OEC		OPEN ELECTIVE - 2	OE-2	R/M	3	0	0	0	3	3	NIL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
255	OEC		OPEN ELECTIVE - 3	OE-3	R/M	3	0	0	0	3	3	NIL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
			TOTAL CREDITS										**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**
256	VAC		VALUE ADDED COURSE-1	VAC-1	R/M	0	0	0	8	0	0	NIL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
257	VAC		VALUE ADDED COURSE-2	VAC-2	R/M	0	0	0	8	0	0	NIL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
258	VAC		VALUE ADDED COURSE-3	VAC-3	R/M	0	0	0	8	0	0	NIL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
259	VAC		VALUE ADDED COURSE-4	VAC-4	R/M	0	0	0	8	0	0	NIL	Y	Y	Y	Y						
260	VAC		SPORTS/YOGA CERTIFICATION	SPORT	R/M	0	0	0	2	0	2	NIL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
			GRAND TOTAL CREDITS										**164**	**168**	**168**	**171**	**175**	**171**	**170**	**169**	**173**	**173**

LIST OF SCIENCE & MATHEMATICS ELECTIVES - B.TECH																						
Sl No	**ELECTIVE NO**	**COURSE CODE**	**COURSE TITLE**	**SHORT NAME**	**MODE**	**L**	**T**	**P**	**S**	**Cr**	**CH**	**PRE-REQUISITE**	**CSE**	**CSIT**	**AIDS**	**ECE**	**ECS**	**EEE**	**IOT**	**BT**	**ME**	**CE**
1	SCE-1	22PH1005	ENGINEERING PHYSICS	EPY	R	3	0	2	0	4	5	NIL								Y		
2	SCE-1	22PH1010	MECHANICS	MEC	R	3	1	0	0	4	4	NIL									Y	Y
3	SCE-1	22EE2103	ELECTROMAGNETIC FIELD THEORY & ENGINEERING MATERIALS	EMFT	R	3	0	2	0	4	5	NIL						Y				
4	SCE-1	22PH1211	SEMI CONDUCTOR PHYSICS	SCP	R	3	0	2	0	4	5	NIL										
5	SCE-1	22PH1008	PHYSICS FOR ELECTRONIC ENGINEERS	PEE	R	3	0	2	0	4	5	NIL				Y			Y			
6	SCE-1	22PH1006	QUANTUM PHYSICS FOR ENGINEERING	QPFE	R	3	0	2	0	4	5	NIL	Y	Y	Y							
7	SCE-2	22CY1001	ENGINEERING CHEMISTRY	ECY	R	3	0	2	0	4	5	NIL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
8	SCE-3	22BT1201	CELL BIOLOGY	CB	R	3	0	0	0	3	3	NIL								Y		
9	SCE-3	22CE1201	ENGINEERING GEOLOGY	GEY	R	3	0	2	0	4	5	NIL										Y
10	ME-1	22MT1101	MATHEMATICS FOR COMPUTING	MFC	R	2	2	0	2	4.5	6	NIL	Y	Y	Y	Y	y	Y	Y	Y	Y	Y
11	ME-2	22MT2102	MATHEMATICS FOR ENGINEERS	DIS	R	2	1	0	0	3	3	NIL	Y	Y	Y	Y	y	Y	Y	Y	Y	Y
12	ME-3/4	22MT2003	MATHEMATICAL MODELLING & NUMERICAL METHODS	MMNM	R	2	2	0	0	4	4	NIL							Y	Y	Y	Y
13	ME-3/4	22MT2004	MATHEMATICAL PROGRAMMING	MP	R	2	2	0	0	4	4	NIL	Y	Y	Y		y		Y			
14	ME-3/4	22MT2005	PROBABILITY, STATISTICS & QUEUEING THEORY	PSQT	R	2	2	0	0	4	4	NIL	Y	Y	Y		y	Y	Y			Y
15	ME-3/4	22MT2006	OPTIMIZATION IN ENGINEERING	QIE	R	2	2	0	0	4	4	NIL				Y						
16	ME-3/4	22MT2007	RANDOM VARIABLES AND STOCHASTIC PROCESS	RVASP	R	2	2	0	0	4	4	NIL				Y						
17	ME-3/4	22MT2008	COMPLEX ANALYSIS AND TRANSFORM TECHNIQUES	CATT	R	2	2	0	0	4	4	NIL						Y				Y
18	ME-3/4	22MT2009	BIOSTATISTICS	BS	R	2	2	0	0	4	4	NIL								Y		
19	ME-3/4	22MT2010	COMPUTATIONS IN APPLIED MECHANICS AND STATISTICS	NCE	R	2	2	0	0	4	4	NIL									Y	
20	ME-3/4	22MT2011	OPTIMIZATION TECHNIQUES	OT	R	2	2	0	0	4	4	NIL									Y	
21	ME-3/4	22MT1011	MATHEMATICAL METHODS	MMS	R	2	1	0	0	3	3	NIL								y		

LIST OF FLEXI CORE COURSES - B.TECH										
Sl No	**Course Code**	**Course Title**	**Mode**	**L**	**T**	**P**	**S**	**Cr**	**CH**	**PRE-REQUISITE**
1	22AD2221	DATABASE MANAGEMENT SYSTEMS	R	2	0	2	0	3	4	DS
2	22AD2222	NATURAL LANGUAGE PROCESSING	R	2	0	2	0	3	4	DDAIS
3	22AD2223	SOFT COMPUTING	R	2	0	2	0	3	4	DAA
4	22AD2224	CLOUD COMPUTING	R	2	1	0	0	3	3	OS
5	22AD2226	IMAGE AND VIDEO PROCESSING	R	2	0	2	0	3	4	DST
6	22AD2227	CRYPTOGRAPHY AND SECURITY	R	2	0	2	0	3	4	LACE
7	22AD2228	REAL TIME OPERATING SYSTEM	R	2	0	2	0	3	4	OS
8	22BT2221	PROCESS ENGINEERING PRINCIPLES	R	2	0	2	0	3	4	BCT
9	22BT2222	BIOPROCESS DYNAMICS AND CONTROL	R	2	0	2	0	3	4	BCT
10	22BT2223	BIORESOURCES TECHNOLOGY	R	2	0	2	0	3	4	BCT
11	22BT2224	BIOREACTOR OPERATIONS	R	2	0	2	0	3	4	BCT
12	22BT2225	UNITOPERATIONS IN FOOD TECHNOLOGY	R	2	0	2	0	3	4	BCT
13	22BT2226	BIOMINING	R	2	0	2	0	3	4	BCT
14	22BT2227	BIOINFORMATICS	R	2	0	2	0	3	4	CB
15	22BT2228	CLINICAL DATA SCIENCE	R	2	0	2	0	3	4	CB
16	22BT2229	DATA SCIENCE FOR BIOLOGISTS	R	2	0	2	0	3	4	CB
17	22BT2230	STATISTICS FOR GENOMICS DATA SCIENCE	R	2	0	2	0	3	4	CB
18	22BT2231	ALGORITHMS FOR DNA SEQUENCING	R	2	0	2	0	3	4	CB
19	22BT2232	DATA MINING	R	2	0	2	0	3	4	CB
20	22BT2233	GENETICS	R	2	1	0	0	3	3	CB
21	22BT2234	REGULATORY AFFAIRS AND CLINICAL TRAILS	R	2	1	0	0	3	3	CB
22	22BT2235	BIOETHICS AND BIOSAFETY	R	2	1	0	0	3	3	CB
23	22BT2236	PROTEIN ENGINEERING	R	2	1	0	0	3	3	CB
24	22BT2237	PLANT MOLECULAR BIOLOGY	R	2	1	0	0	3	3	CB
25	22BT2238	MOLECULAR REGULATION AND HEALTH DISEASES	R	2	1	0	0	3	3	CB
26	22CE2221	WATER RESOURCES ENGINEERING	R	2	0	2	0	3	4	NIL
27	22CE2222	DESIGN OF STEEL STRUCTURES	R	2	0	2	0	3	4	SA
28	22CE2223	CONSTRUCTION PLANNING & MANAGEMENT	R	2	1	0	0	3	3	ED
29	22CE2224	SOLID MECHANICS	R	3	0	0	0	3	3	EM
30	22CE2225	STRUCTURAL ANALYSIS	R	3	0	0	0	3	3	SM
31	22CE2226	DESIGN OF REINFORCED CONCRETE STRUCTURES	R	2	0	2	0	3	4	SA

Sl No	Course Code	Course Title	Mode	L	T	P	S	Cr	CH	PRE-REQUISITE
32	22CE2227	FLUID MECHANICS AND HYDRAULICS	R	2	0	2	0	3	4	NIL
33	22CE2228	ENVIRONMENTAL IMPACT ASSESSMENT AND LIFE CYCLE	R	3	0	0	0	3	3	FMH
34	22CE2229	ADVANCED CONSTRUCTION TECHNOLOGY	R	3	0	0	0	3	3	CPM
35	22CE2230	PROJECTS & CONTRACT MANAGEMENT	R	3	0	0	0	3	3	CPM
36	22CE2231	SOIL MECHANICS	R	2	0	2	0	3	4	Nil
37	22CI2221	MANAGEMENT INFORMATION SYSTEMS	R	2	1	0	0	3	4	ASE
38	22CI2001	ADAPTIVE SOFTWARE ENGINEERING	R	2	1	0	0	3	3	NIL
39	22CS2221	UX DESIGN	R	2	0	2	0	3	4	DTI
40	22CS2222	CONTINUOUS DELIVERY & DEVOPS	R	2	0	2	0	3	4	SE
41	22CS2223	CLOUD INFRASTRUCTURE AND SERVICES	R	2	0	2	0	3	4	OS & NPS
42	22CS2224	CRYPT ANALYSIS & CYBER DEFENSE	R	2	0	2	0	3	4	NPS
43	22CS2225	EMBEDDED SYSTEMS	R	2	0	2	0	3	4	DLP
44	22CS2226	MACHINE LEARNING	R	2	0	2	0	3	4	IAD
45	22CS2227	DATA VISUALIZATION TECHNIQUES	R	2	0	2	0	3	4	PSQ
46	22CS2228	CROSS-PLATFORM USER EXPERIENCE DESIGN	R	2	0	2	0	3	4	EP
47	22CS2229	APPLICATION DEVELOPMENT ON CLOUD	R	2	0	2	0	3	4	EP
48	22CS2230	SOLUTIONS ARCHITECTING ON CLOUD	R	2	0	2	0	3	4	OS &NPS
49	22CS2231	VISUAL PROGRAMING	R	2	0	2	0	3	4	CTOD
50	22CS2232	ADVANCED DATABASES	R	2	0	2	0	3	4	DBMS
51	22CS2233	INTRODUCTION TO BLOCKCHAIN AND CRYPTO CURRENC	R	2	0	2	0	3	4	NPS
52	22CS2234	NETWORK AND INFRASTRUCTURE SECURITY	R	2	0	2	0	3	4	NPS
53	22CS2235	COMPILER DESIGN	R	2	0	2	0	3	4	ATFL
54	22CS2236	FUNCTIONAL AND CONCURRENT PROGRAMMING	R	2	0	2	0	3	4	CTOD
55	22CS2237	QUANTUM COMPUTING	R	2	0	2	0	3	4	MFC
56	22CS2238	AUTOMATA THEORY AND FORMAL LANGUAGES	R	2	1	0	0	3	3	NIL
57	22CS2239	SOFTWARE VERIFICATION AND VALIDATION	R	2	0	2	0	3	4	SE
58	22CS2240	.NET PROGRAMMING (EPAM)	R	2	0	2	0	3	4	CTSD
59	22CS2241	FRONT END WEB DEVELOPMENT (EPAM)	R	2	0	2	0	3	4	CTOD
60	22CS2242	SOFTWARE TESTING (EPAM)	R	2	0	2	0	3	4	ASE
61	22CS2243	CLOUD DEVOPS (EPAM)	R	2	0	2	0	3	4	OS
62	22CS2244	OPERATING SYSTEMS	R	2	0	2	0	3	4	DLP
63	22CS2245	DESIGN & ANALYSIS OF ALGORITHMS	R	2	0	2	0	3	4	NIL

Sl No	Course Code	Course Title	Mode	L	T	P	S	Cr	CH	PRE-REQUISITE
64	22CS2246	OBJECT ORIENTED PROGRAMMING	R	2	0	2	0	3	4	NIL
65	22EC2221	EMBEDDED SYSTEM DESIGN	R	2	0	2	0	3	4	DDCA
66	22EC2222	DIGITAL VLSI DESIGN	R	2	0	2	0	3	4	DDCA
67	22EC2223	FUNDAMENTALS OF ROBOTICS	R	2	0	2	0	3	4	LACE
68	22EC2224	DEEP NETWORK ARCHITECTURES	R	2	0	2	0	3	4	LACE
69	22EC2225	RADIATING SYSTEMS & WAVE PROPAGATION	R	2	0	2	0	3	4	LACE
70	22EC2226	WIRELESS COMMUNICATIONS	R	2	0	2	0	3	4	LACE
71	22EC2227	COMMUNICATION NETWORKS	R	2	0	2	0	3	4	LACE
72	22EC2228	BIOMEDICAL ELECTRONICS & IOT FOR HEALTHCARE	R	2	0	2	0	3	4	FIOT
73	22EC2229	WIRELESS SENSOR NETWORKS	R	2	0	2	0	3	4	FIOT
74	22EC2230	LOW POWER VLSI CIRCUITS	R	2	0	2	0	3	4	DDCA
75	22EC2231	ELECTRONICS INSTRUMENTS & AUTOMATION	R	2	0	2	0	3	4	IR
76	22EC2232	DEEP LEARNING FOR COMPUTER VISION APPLICATIONS	R	2	0	2	0	3	4	IR
77	22EC2233	RF SYSTEM DESIGN	R	2	0	2	0	3	4	RSWP
78	22EC2234	RADIO WAVE PROPAGATION	R	2	0	2	0	3	4	RSWP
79	22EC2235	NETWORK SECURITY	R	2	0	2	0	3	4	CN
80	22EC2236	ELECTRONIC CIRCUITS FOR MEDICAL INSTRUMENTATION	R	2	0	2	0	3	4	BEIH
81	22EC2237	ASIC AND FPGA DESIGN	R	2	0	2	0	3	4	DVD
82	22EC2238	PEER TO PEER NETWORKS	R	2	0	2	0	3	4	WSN
83	22EC2239	WIRELESS LAN	R	2	0	2	0	3	4	WSN
84	22EC2240	PROCESSORS & CONTROLLERS	R	2	0	2	0	3	4	Nil
85	22EE2221	RESTRUCTURED POWER SYSTEMS	R	3	0	0	0	3	3	BEEC
86	22EE2222	INDUSTRIAL APPLICATIONS OF ELECTRICAL MACHINES	R	2	0	2	0	3	4	BEEC
87	22EE2223	UTILIZATION OF ELECTRICAL ENERGY	R	3	0	0	0	3	3	BEEC
88	22EE2224	MEASUREMENTS AND INSTRUMENTATION	R	2	0	2	0	3	4	BEEC
89	22EE2225	POWER QUALITY	R	3	0	0	0	3	3	BEEC
90	22EE2226	ELECTRICAL TECHNOLOGY	R	2	0	2	0	3	4	BEEC
91	22EE2227	ELECTRICAL POWER ENGINEERING	R	3	0	0	0	3	3	BEEC
92	22EE2228	POWER ELECTRONICS & DRIVES	R	2	0	2	0	3	4	ET
93	22EE2229	ELECTRICAL DRIVES	R	3	0	0	0	3	3	BEEC
94	22IN2221	IOT PRINCIPLES AND ARCHITECTURE	R	2	0	2	0	3	4	FIOT
95	22IN2222	CLOUD COMPUTING FOR IOT	R	2	0	2	0	3	4	FIOT

Sl No	Course Code	Course Title	Mode	L	T	P	S	Cr	CH	PRE-REQUISITE
96	22ME2221	SUPPLY CHAIN & QUALITY MANAGEMENT	R	3	0	0	0	3	3	MP
97	22ME2222	MATERIAL SCIENCE	R	2	0	2	0	3	3	NIL
98	22ME2223	MANUFACTURING PROCESSES	R	2	0	2	0	3	3	NIL
99	22ME2224	MANUFACTURING TECHNOLOGY	R	2	0	2	0	3	3	NIL
100	22ME2225	INDUSTRIAL INTERNET OF THINGS	R	2	0	2	0	3	4	NIL
101	22ME2226	ELECTRIC VEHICLE TECHNOLOGY	R	2	0	2	0	3	3	NIL
102	22ME2227	THERMODYNAMICS	R	3	0	0	0	3	3	NIL
103	22ME2228	FLUID MECHANICS	R	2	0	2	0	3	3	NIL
104	22ME2229	HEAT TRANSFER	R	2	0	2	0	3	3	TD
105	22ME2230	ENGINEERING MECHANICS	R	3	0	0	0	3	3	NIL
106	22ME2231	STRENGTH OF MATERIALS	R	2	0	2	0	3	3	EM
107	22ME2232	MECHANICAL ENGINEERING DESIGN	R	3	0	0	0	3	3	NIL

LIST OF PROFESSIONAL ELECTIVES - B.TECH												
Sl No	**SPECIALIZATION**	**Course Code**	**Elective No**	**Course Title**	**Mode**	**L**	**T**	**P**	**S**	**Cr**	**CH**	**PRE-REQUISITE**
1	AGRI BIOTECHNOLOGY	22ABT3101R	PEC-1	MOLECULAR PLANT VIOROLOGY	R	2	0	2	4	4	8	MLBG
2	AGRI BIOTECHNOLOGY	22ABT3101A	PEC-1	MOLECULAR PLANT VIOROLOGY	A	3	0	4	4	6	11	MLBG
3	AGRI BIOTECHNOLOGY	22ABT3101P	PEC-1	MOLECULAR PLANT VIOROLOGY	P	3	0	4	4	6	11	MLBG
4	AGRI BIOTECHNOLOGY	22ABT3202	PEC-2	MOLECULAR PATHOLOGY AND PEST MANAGEMENT	R	2	0	2	0	3	4	MLBG
5	AGRI BIOTECHNOLOGY	22ABT3203	PEC-2	CROP SCIENCE AND PRODUCTION	R	2	0	2	0	3	4	MLBG
6	AGRI BIOTECHNOLOGY	22ABT3304R	PEC-3	GMOS, BIOSAFETY AND BIOETHICS	R	2	0	2	4	4	8	MLBG
7	AGRI BIOTECHNOLOGY	22ABT3304A	PEC-3	GMOS, BIOSAFETY AND BIOETHICS	A	3	0	4	4	6	11	MLBG
8	AGRI BIOTECHNOLOGY	22ABT3304P	PEC-3	GMOS, BIOSAFETY AND BIOETHICS	P	3	0	4	4	6	11	MLBG
9	AGRI BIOTECHNOLOGY	22ABT3405M	PEC-4	AGRICULTURAL INFORMATICS	M	3	0	0	0	3	3	MLBG
10	AGRI BIOTECHNOLOGY	22ABT3406M	PEC-4	AGRIBUSINESS AND ENTERPREUNERSHIP	M	3	0	0	0	3	3	MLBG
11	AGRI BIOTECHNOLOGY	22ABT3507	PEC-5	MOLECULAR BREEDING IN FIELD CROPS	R	2	0	2	0	3	4	MLBG
12	AGRI BIOTECHNOLOGY	22ABT3508	PEC-5	PLANT BREEDING	R	2	0	2	0	3	4	MLBG
13	ARTIFICIAL INTELLIGENCE & INTELLIGENT PROCESS AUTOMATION	22AIP3101R	PEC-1	MACHINE LEARNING	R	2	0	2	4	4	8	DDAIS
14	ARTIFICIAL INTELLIGENCE & INTELLIGENT PROCESS AUTOMATION	22AIP3101A	PEC-1	MACHINE LEARNING	A	3	0	4	4	6	11	DDAIS
15	ARTIFICIAL INTELLIGENCE & INTELLIGENT PROCESS AUTOMATION	22AIP3101P	PEC-1	MACHINE LEARNING	P	3	0	4	4	6	11	DDAIS
16	ARTIFICIAL INTELLIGENCE & INTELLIGENT PROCESS AUTOMATION	22AIP3202	PEC-2	SOFT COMPUTING	R	2	0	2	0	3	4	DDAIS
17	ARTIFICIAL INTELLIGENCE & INTELLIGENT PROCESS AUTOMATION	22AIP3203	PEC-2	MULTI MODEL INFORMATION PROCESSING	R	2	0	2	0	3	4	NIL
18	ARTIFICIAL INTELLIGENCE & INTELLIGENT PROCESS AUTOMATION	22AIP3204	PEC-2	ARTIFICIAL NEURAL NETWORKS	R	2	0	2	0	3	4	DDAIS
19	ARTIFICIAL INTELLIGENCE & INTELLIGENT PROCESS AUTOMATION	22AIP3305R	PEC-3	DEEP LEARNING	R	2	0	2	4	4	8	ML
20	ARTIFICIAL INTELLIGENCE & INTELLIGENT PROCESS AUTOMATION	22AIP3305A	PEC-3	DEEP LEARNING	A	3	0	4	4	6	11	ML
21	ARTIFICIAL INTELLIGENCE & INTELLIGENT PROCESS AUTOMATION	22AIP3305P	PEC-3	DEEP LEARNING	P	3	0	4	4	6	11	ML
22	ARTIFICIAL INTELLIGENCE & INTELLIGENT PROCESS AUTOMATION	22AIP3406M	PEC-4	COGNITIVE COMPUTING	M	3	0	0	0	3	3	DDAIS

Sl No	SPECIALIZATION	Course Code	Elective No	Course Title	Mode	L	T	P	S	Cr	CH	PRE-REQUISITE
23	ARTIFICIAL INTELLIGENCE & INTELLIGENT PROCESS AUTOMATION	22AIP3407M	PEC-4	PERCEPTION AND COMPUTER VISION	M	3	0	0	0	3	3	DDAIS
24	ARTIFICIAL INTELLIGENCE & INTELLIGENT PROCESS AUTOMATION	22AIP3408M	PEC-4	MACHINE LEARNING ON CLOUD	M	3	0	0	0	3	3	ML
25	ARTIFICIAL INTELLIGENCE & INTELLIGENT PROCESS AUTOMATION	22AIP3509	PEC-5	COMPUTATIONAL EPIDEMIOLOGY	R	2	0	2	0	3	4	DDAIS
26	ARTIFICIAL INTELLIGENCE & INTELLIGENT PROCESS AUTOMATION	22AIP3510	PEC-5	NATURAL LANGUAGE PROCESSING	R	2	0	2	0	3	4	DDAIS
27	ARTIFICIAL INTELLIGENCE & INTELLIGENT PROCESS AUTOMATION	22AIP3511	PEC-5	SPEECH PROCESSING	R	2	0	2	0	3	4	DDAIS
28	ARTIFICIAL INTELLIGENCE & INTELLIGENT PROCESS AUTOMATION	22AIP3512	PEC-5	DESIGN & MANAGEMENT OF DISTRIBUTED APPLICATIONS FOR AI ON CLOUD	R	2	0	2	0	3	4	CIS
29	ARTIFICIAL INTELLIGENCE & INTELLIGENT PROCESS AUTOMATION	22AIP3513	PEC-5	ARCHITECTING DEEP LEARNING WORKLOADS ON CLOUD	R	2	0	2	0	3	4	DDAIS&CIS
30	AUTOMOTIVE ELECTRONICS & AUTOSAR	22AEA3101R	PEC-1	AUTOMOTIVE SENSOR AND APPLICATIONS	R	2	0	2	4	4	8	TD
31	AUTOMOTIVE ELECTRONICS & AUTOSAR	22AEA3101A	PEC-1	AUTOMOTIVE SENSOR AND APPLICATIONS	A	3	0	4	4	6	11	TD
32	AUTOMOTIVE ELECTRONICS & AUTOSAR	22AEA3101P	PEC-1	AUTOMOTIVE SENSOR AND APPLICATIONS	P	3	0	4	4	6	11	TD
33	AUTOMOTIVE ELECTRONICS & AUTOSAR	22AEA3202	PEC-2	AUTOTRONICS	R	2	0	2	0	3	4	TD
34	AUTOMOTIVE ELECTRONICS & AUTOSAR	22AEA3203	PEC-2	AUTOMOTIVE POLLUTION AND ITS CONTROL	R	2	0	2	0	3	4	TD
35	AUTOMOTIVE ELECTRONICS & AUTOSAR	22AEA3304R	PEC-3	ALTERNATE DRIVES, TRACTION AND CONTROLS	R	2	0	2	4	4	8	TD
36	AUTOMOTIVE ELECTRONICS & AUTOSAR	22AEA3304A	PEC-3	ALTERNATE DRIVES, TRACTION AND CONTROLS	A	3	0	4	4	6	11	TD
37	AUTOMOTIVE ELECTRONICS & AUTOSAR	22AEA3304P	PEC-3	ALTERNATE DRIVES, TRACTION AND CONTROLS	P	3	0	4	4	6	11	TD
38	AUTOMOTIVE ELECTRONICS & AUTOSAR	22AEA3405M	PEC-4	VEHICLE CONTROL SYSTEMS	M	3	0	0	0	3	3	TD
39	AUTOMOTIVE ELECTRONICS & AUTOSAR	22AEA3406M	PEC-4	AUTOMOTIVE ELECTRICAL AND ELECTRONIC SYSTEMS	M	3	0	0	0	3	3	TD
40	AUTOMOTIVE ELECTRONICS & AUTOSAR	22AEA3507	PEC-5	SOFT COMPUTING TECHNIQUES FOR AUTOMOTIVE APPLICATIONS	R	2	0	2	0	3	4	TD
41	AUTOMOTIVE ELECTRONICS & AUTOSAR	22AEA3508	PEC-5	AUTOMOTIVE NETWORKING AND PROTOCOLS	R	2	0	2	0	3	4	TD
42	AUTONOMOUS SYSTEMS	22ASS3101R	PEC-1	AUTONOMOUS DRIVER ASSISTIVE SYSTEMS	R	2	0	2	4	4	8	DDAIS
43	AUTONOMOUS SYSTEMS	22ASS3101A	PEC-1	AUTONOMOUS DRIVER ASSISTIVE SYSTEMS	A	3	0	4	4	6	11	DDAIS
44	AUTONOMOUS SYSTEMS	22ASS3101P	PEC-1	AUTONOMOUS DRIVER ASSISTIVE SYSTEMS	P	3	0	4	4	6	11	DDAIS
45	AUTONOMOUS SYSTEMS	22ASS3202	PEC-2	INTRODUCTION TO INTELLIGENT DRONES	R	2	0	2	0	3	4	DDAIS

Sl No	SPECIALIZATION	Course Code	Elective No	Course Title	Mode	L	T	P	S	Cr	CH	PRE-REQUISITE
46	AUTONOMOUS SYSTEMS	22ASS3203	PEC-2	AI AND IOT FOR AUTONOMOUS VEHICLE	R	2	0	2	0	3	4	DDAIS
47	AUTONOMOUS SYSTEMS	22ASS3304R	PEC-3	APPLIED DEEP LEARNING FOR AUTONOMOUS SYSTEMS	R	2	0	2	4	4	8	DDAIS
48	AUTONOMOUS SYSTEMS	22ASS3304A	PEC-3	APPLIED DEEP LEARNING FOR AUTONOMOUS SYSTEMS	A	3	0	4	4	6	11	DDAIS
49	AUTONOMOUS SYSTEMS	22ASS3304P	PEC-3	APPLIED DEEP LEARNING FOR AUTONOMOUS SYSTEMS	P	3	0	4	4	6	11	DDAIS
50	AUTONOMOUS SYSTEMS	22ASS3405M	PEC-4	EXPERT SYSTEMS	M	3	0	0	0	3	3	DDAIS
51	AUTONOMOUS SYSTEMS	22ASS3406M	PEC-4	SELF-DRIVING CARS	M	3	0	0	0	3	3	DDAIS
52	AUTONOMOUS SYSTEMS	22ASS3507	PEC-5	LOCALIZATION & PROGRAMMING REAL-TIME AUTONOMOUS SYSTEMS	R	2	0	2	0	3	4	DDAIS
53	AUTONOMOUS SYSTEMS	22ASS3508	PEC-5	REINFORCEMENT LEARNING FOR AUTONOMOUS SYSTEM	R	2	0	2	0	3	4	DDAIS
54	BIOINFORMATICS	22BIS3101R	PEC-1	MOLECULAR MODELLING AND DRUG DESIGN	R	2	0	2	4	4	8	MLBG
55	BIOINFORMATICS	22BIS3101A	PEC-1	MOLECULAR MODELLING AND DRUG DESIGN	A	3	0	4	4	6	11	MLBG
56	BIOINFORMATICS	22BIS3101P	PEC-1	MOLECULAR MODELLING AND DRUG DESIGN	P	3	0	4	4	6	11	MLBG
57	BIOINFORMATICS	22BIS3202	PEC-2	BIOMEDICAL INFORMATICS	R	2	0	2	0	3	4	MLBG
58	BIOINFORMATICS	22BIS3203	PEC-2	PYTHON AND R PROGRAMMING	R	2	0	2	0	3	4	MLBG
59	BIOINFORMATICS	22BIS3304R	PEC-3	STRUCTURAL BIOLOGY	R	2	0	2	4	4	8	MLBG
60	BIOINFORMATICS	22BIS3304A	PEC-3	STRUCTURAL BIOLOGY	A	3	0	4	4	6	11	MLBG
61	BIOINFORMATICS	22BIS3304P	PEC-3	STRUCTURAL BIOLOGY	P	3	0	4	4	6	11	MLBG
62	BIOINFORMATICS	22BIS3405M	PEC-4	APPLIED BIOINFORMATICS	M	3	0	0	0	3	3	MLBG
63	BIOINFORMATICS	22BIS3406M	PEC-4	NGS SEQUENCING AND DATA ANALYSIS	M	3	0	0	0	3	3	MLBG
64	BIOINFORMATICS	22BIS3507	PEC-5	SYSTEMS BIOLOGY	R	2	0	2	0	3	4	MLBG
65	BIOINFORMATICS	22BIS3508	PEC-5	DATA BASE MANAGEMENT SYSTEM FOR BIOLOGIST	R	2	0	2	0	3	4	MLBG
66	BIO-MEDICAL INSTRUMENTATION	22BMI3101R	PEC-1	BIOMEDICAL SIGNAL AND IMAGE PROCESSING	R	2	0	2	4	4	8	BEIH
67	BIO-MEDICAL INSTRUMENTATION	22BMI3101A	PEC-1	BIOMEDICAL SIGNAL AND IMAGE PROCESSING	A	3	0	4	4	6	11	BEIH
68	BIO-MEDICAL INSTRUMENTATION	22BMI3101P	PEC-1	BIOMEDICAL SIGNAL AND IMAGE PROCESSING	P	3	0	4	4	6	11	BEIH

Sl No	SPECIALIZATION	Course Code	Elective No	Course Title	Mode	L	T	P	S	Cr	CH	PRE-REQUISITE
69	BIO-MEDICAL INSTRUMENTATION	22BMI3202	PEC-2	ADVANCED BIOMEDICAL SIGNAL PROCESSING	R	2	0	2	0	3	4	BEIH
70	BIO-MEDICAL INSTRUMENTATION	22BMI3303R	PEC-3	MATERIALS FOR BIO-MEDICAL APPLICATIONS	R	2	0	2	4	4	8	BSIP
71	BIO-MEDICAL INSTRUMENTATION	22BMI3303A	PEC-3	MATERIALS FOR BIO-MEDICAL APPLICATIONS	A	3	0	4	4	6	11	BSIP
72	BIO-MEDICAL INSTRUMENTATION	22BMI3303P	PEC-3	MATERIALS FOR BIO-MEDICAL APPLICATIONS	P	3	0	4	4	6	11	BSIP
73	BIO-MEDICAL INSTRUMENTATION	22BMI3404M	PEC-4	NANOTECHNOLOGY AND NANOSENSORS	M	3	0	0	0	3	3	BSIP
74	BIO-MEDICAL INSTRUMENTATION	22BMI3505	PEC-5	BIOSENSING AND BIOELECTRONICS	R	2	0	2	0	3	4	BSIP
75	GEO-SPATIAL DATA ANALYTICS	22GSD3101R	PEC-1	BIG DATA SYSTEMS FOR SPATIAL DBMS	R	2	0	2	4	4	8	DBMS
76	GEO-SPATIAL DATA ANALYTICS	22GSD3101A	PEC-1	BIG DATA SYSTEMS FOR SPATIAL DBMS	A	3	0	4	4	6	11	DBMS
77	GEO-SPATIAL DATA ANALYTICS	22GSD3101P	PEC-1	BIG DATA SYSTEMS FOR SPATIAL DBMS	P	3	0	4	4	6	11	DBMS
78	GEO-SPATIAL DATA ANALYTICS	22GSD3202	PEC-2	MULTIVARIATE & GEOGRAPHICAL DATA ANALYSIS	R	2	0	2	0	3	4	DBMS
79	GEO-SPATIAL DATA ANALYTICS	22GSD3203	PEC-2	MULTIVARIATE STATISTICAL MODELLING	R	2	0	2	0	3	4	DBMS
80	GEO-SPATIAL DATA ANALYTICS	22GSD3304R	PEC-3	SPATIAL ANALYSIS IN R	R	2	0	2	4	4	8	DBMS
81	GEO-SPATIAL DATA ANALYTICS	22GSD3304A	PEC-3	SPATIAL ANALYSIS IN R	A	3	0	4	4	6	11	DBMS
82	GEO-SPATIAL DATA ANALYTICS	22GSD3304P	PEC-3	SPATIAL ANALYSIS IN R	P	3	0	4	4	6	11	DBMS
83	GEO-SPATIAL DATA ANALYTICS	22GSD3405M	PEC-4	REMOTE SENSING & GIS	M	3	0	0	0	3	3	DBMS
84	GEO-SPATIAL DATA ANALYTICS	22GSD3406M	PEC-4	IMAGE PROCESSING AND GEO-INFORMATICS	M	3	0	0	0	3	3	DBMS
85	GEO-SPATIAL DATA ANALYTICS	22GSD3507	PEC-5	GEO-DESIGN AND GEO-VISUALIZATION	R	2	0	2	0	3	4	DBMS
86	GEO-SPATIAL DATA ANALYTICS	22GSD3508	PEC-5	DATA SCIENCE & VISUALIZATION FOR GEO-INFORMATICS	R	2	0	2	0	3	4	DBMS
87	GEOTECHNICAL & TRANSPORTATION ENGINEERING	22GTE3101R	PEC-1	ADVANCED FOUNDATION ENGINEERING	R	2	0	2	4	4	8	GTE
88	GEOTECHNICAL & TRANSPORTATION ENGINEERING	22GTE3101A	PEC-1	ADVANCED FOUNDATION ENGINEERING	A	3	0	4	4	6	11	GTE
89	GEOTECHNICAL & TRANSPORTATION ENGINEERING	22GTE3101P	PEC-1	ADVANCED FOUNDATION ENGINEERING	P	3	0	4	4	6	11	GTE
90	GEOTECHNICAL & TRANSPORTATION ENGINEERING	22GTE3202	PEC-2	INTELLIGENT TRANSPORTATION SYSTEMS	R	2	0	2	0	3	4	TE
91	GEOTECHNICAL & TRANSPORTATION ENGINEERING	22GTE3203	PEC-2	GROUND IMPROVEMENT TECHNIQUES	R	2	0	2	0	3	4	GTE

Sl No	SPECIALIZATION	Course Code	Elective No	Course Title	Mode	L	T	P	S	Cr	CH	PRE-REQUISITE
92	GEOTECHNICAL & TRANSPORTATION ENGINEERING	22GTE3304R	PEC-3	PAVEMENT MATERIALS &DESIGN	R	2	0	2	4	4	8	TE
93	GEOTECHNICAL & TRANSPORTATION ENGINEERING	22GTE3304A	PEC-3	PAVEMENT MATERIALS &DESIGN	A	3	0	4	4	6	11	TE
94	GEOTECHNICAL & TRANSPORTATION ENGINEERING	22GTE3304P	PEC-3	PAVEMENT MATERIALS &DESIGN	P	3	0	4	4	6	11	TE
95	GEOTECHNICAL & TRANSPORTATION ENGINEERING	22GTE3405M	PEC-4	URBAN TRANSPORTATION SYSTEMS PLANNING	M	3	0	0	0	3	3	TE
96	GEOTECHNICAL & TRANSPORTATION ENGINEERING	22GTE3406M	PEC-4	GEOTECHNICAL EARTHQUAKE ENGINEERING	M	3	0	0	0	3	3	GTE
97	GEOTECHNICAL & TRANSPORTATION ENGINEERING	22GTE3507	PEC-5	TRAFFIC ENGINEERING AND MANAGEMENT	R	2	0	2	0	3	4	TE
98	GEOTECHNICAL & TRANSPORTATION ENGINEERING	22GTE3508	PEC-5	DESIGN OF EARTH RETAINING STRUCTURES	R	2	0	2	0	3	4	GTE
99	CLOUD & EDGE COMPUTING	22CEC3101R	PEC-1	CLOUD INFRASTRUCTURE & SERVICES	R	2	0	2	4	4	8	OS
100	CLOUD & EDGE COMPUTING	22CEC3101A	PEC-1	CLOUD INFRASTRUCTURE & SERVICES	A	3	0	4	4	6	11	OS
101	CLOUD & EDGE COMPUTING	22CEC3101P	PEC-1	CLOUD INFRASTRUCTURE & SERVICES	P	3	0	4	4	6	11	OS
102	CLOUD & EDGE COMPUTING	22CEC3202	PEC-2	ADVANCED OPERATING SYSTEMS	R	2	0	2	0	3	4	OS
103	CLOUD & EDGE COMPUTING	22CEC3203	PEC-2	FUNCTIONAL & CONCURRENT PROGRAMMING	R	2	0	2	0	3	4	CTOD
104	CLOUD & EDGE COMPUTING	22CEC3204	PEC-2	CLOUD DEVOPS	R	2	0	2	0	3	4	ASE
105	CLOUD & EDGE COMPUTING	22CEC3305R	PEC-3	CLOUD & SERVERLESS COMPUTING	R	2	0	2	4	4	8	OS
106	CLOUD & EDGE COMPUTING	22CEC3305A	PEC-3	CLOUD & SERVERLESS COMPUTING	A	3	0	4	4	6	11	OS
107	CLOUD & EDGE COMPUTING	22CEC3305P	PEC-3	CLOUD & SERVERLESS COMPUTING	P	3	0	4	4	6	11	OS
108	CLOUD & EDGE COMPUTING	22CEC3406M	PEC-4	ADVANCED COMPUTER ARCHITECTURE	M	3	0	0	0	3	3	DDCA
109	CLOUD & EDGE COMPUTING	22CEC3407M	PEC-4	PARALLEL ALGORITHMS	M	3	0	0	0	3	3	OS
110	CLOUD & EDGE COMPUTING	22CEC3408M	PEC-4	CLOUD SECURITY	M	3	0	0	0	3	3	OS AND CNP
111	CLOUD & EDGE COMPUTING	22CEC3409M	PEC-4	ARCHITECTING CLOUD SOLUTIONS	M	3	0	0	0	3	3	OS AND CNP
112	CLOUD & EDGE COMPUTING	22CEC3510	PEC-5	EDGE COMPUTING	R	2	0	2	0	3	4	OS
113	CLOUD & EDGE COMPUTING	22CEC3511	PEC-5	HIGH PERFORMANCE COMPUTING	R	2	0	2	0	3	4	OS
114	CLOUD & EDGE COMPUTING	22CEC3512	PEC-5	DESIGN OF DISTRIBUTED APPLICATIONS ON CLOUD	R	2	0	2	0	3	4	OS

Sl No	SPECIALIZATION	Course Code	Elective No	Course Title	Mode	L	T	P	S	Cr	CH	PRE-REQUISITE
115	CLOUD & EDGE COMPUTING	22CEC3513	PEC-5	CLOUD NETWORKING	R	2	0	2	0	3	4	OS
116	COMPUTER COMMUNICATION & 5G TECHNOLOGY	22CCF3101R	PEC-1	TCP/IP & OTHER PROTOCOL SUITE	R	2	0	2	4	4	8	CN
117	COMPUTER COMMUNICATION & 5G TECHNOLOGY	22CCF3101A	PEC-1	TCP/IP & OTHER PROTOCOL SUITE	A	3	0	4	4	6	11	CN
118	COMPUTER COMMUNICATION & 5G TECHNOLOGY	22CCF3101P	PEC-1	TCP/IP & OTHER PROTOCOL SUITE	P	3	0	4	4	6	11	CN
119	COMPUTER COMMUNICATION & 5G TECHNOLOGY	22CCF3202	PEC-2	CLOUD COMPUTING AND NETWORKS SECURITY	R	2	0	2	4	4	8	TCPIP
120	COMPUTER COMMUNICATION & 5G TECHNOLOGY	22CCF3303R	PEC-3	VOIP AND BROADBAND NETWORKS	R	2	0	2	4	4	8	CN
121	COMPUTER COMMUNICATION & 5G TECHNOLOGY	22CCF3303A	PEC-3	VOIP AND BROADBAND NETWORKS	A	3	0	4	4	6	11	CN
122	COMPUTER COMMUNICATION & 5G TECHNOLOGY	22CCF3303P	PEC-3	VOIP AND BROADBAND NETWORKS	P	3	0	4	4	6	11	CN
123	COMPUTER COMMUNICATION & 5G TECHNOLOGY	22CCF3404M	PEC-4	5G MOBILE AND IEEE STANDARDS	M	3	0	0	0	3	3	TCPIP
124	COMPUTER COMMUNICATION & 5G TECHNOLOGY	22CCF3505	PEC-5	IP MULTIMEDIA SUB-SYSTEM & EMERGING TECHNOLOGIES	R	2	0	2	0	3	4	TCPIP
125	COMPUTER COMMUNICATION & 5G TECHNOLOGY	22CCF3506	PEC-5	IT SECURITY: DEFENCE AGAINST THE DIGITAL DARK ARTS	R	2	0	2	0	3	4	TCPIP
126	CONSTRUCTION TECHNOLOGY AND MANAGEMENT	22CTM3101R	PEC-1	BUILDING INFORMATION MODELLING	R	2	0	2	4	4	8	CPM
127	CONSTRUCTION TECHNOLOGY AND MANAGEMENT	22CTM3101A	PEC-1	BUILDING INFORMATION MODELLING	A	3	0	4	4	6	11	CPM
128	CONSTRUCTION TECHNOLOGY AND MANAGEMENT	22CTM3101P	PEC-1	BUILDING INFORMATION MODELLING	P	3	0	4	4	6	11	CPM
129	CONSTRUCTION TECHNOLOGY AND MANAGEMENT	22CTM3202	PEC-2	ADVANCED CONSTRUCTION TECHNOLOGY	R	2	0	2	0	3	4	CPM
130	CONSTRUCTION TECHNOLOGY AND MANAGEMENT	22CTM3203	PEC-2	SUSTAINABLE CONSTRUCTION TECHNOLOGY	R	2	0	2	0	3	4	CPM
131	CONSTRUCTION TECHNOLOGY AND MANAGEMENT	22CTM3304R	PEC-3	CONSTRUCTION PLANNING & SCHEDULING	R	2	0	2	4	4	8	CPM
132	CONSTRUCTION TECHNOLOGY AND MANAGEMENT	22CTM3304A	PEC-3	CONSTRUCTION PLANNING & SCHEDULING	A	3	0	4	4	6	11	CPM
133	CONSTRUCTION TECHNOLOGY AND MANAGEMENT	22CTM3304P	PEC-3	CONSTRUCTION PLANNING & SCHEDULING	P	3	0	4	4	6	11	CPM
134	CONSTRUCTION TECHNOLOGY AND MANAGEMENT	22CTM3405M	PEC-4	CONSTRUCTION CONTRACTS	M	3	0	0	0	3	3	CPM
135	CONSTRUCTION TECHNOLOGY AND MANAGEMENT	22CTM3406M	PEC-4	CONSTRUCTION FORMULATION APPRAISAL	M	3	0	0	0	3	3	CPM
136	CONSTRUCTION TECHNOLOGY AND MANAGEMENT	22CTM3507	PEC-5	QUALITY AND SAFETY IN CONSTRUCTION	R	2	0	2	0	3	4	CPM
137	CONSTRUCTION TECHNOLOGY AND MANAGEMENT	22CTM3508	PEC-5	GREEN BUILDING	R	2	0	2	0	3	4	CPM

Sl No	SPECIALIZATION	Course Code	Elective No	Course Title	Mode	L	T	P	S	Cr	CH	PRE-REQUISITE
138	CROSS PLATFORM DEVELOPMENT FRAMEWORKS	22CPD3101R	PEC-1	FUNDAMENTALS OF MOBILE APPLICATION DEVELOPMENT	R	2	0	2	4	4	8	CTOD
139	CROSS PLATFORM DEVELOPMENT FRAMEWORKS	22CPD3101A	PEC-1	FUNDAMENTALS OF MOBILE APPLICATION DEVELOPMENT	A	3	0	4	4	6	11	CTOD
140	CROSS PLATFORM DEVELOPMENT FRAMEWORKS	22CPD3101P	PEC-1	FUNDAMENTALS OF MOBILE APPLICATION DEVELOPMENT	P	3	0	4	4	6	11	CTOD
141	CROSS PLATFORM DEVELOPMENT FRAMEWORKS	22CPD3202	PEC-2	REACT NATIVE FOR ANDROID AND IOS DEVELOPMENT	R	2	0	2	0	3	4	CTOD
142	CROSS PLATFORM DEVELOPMENT FRAMEWORKS	22CPD3203	PEC-2	FRAMEWORK BASED CROSS PLATFORM APP DEVELOPMENT	R	2	0	2	0	3	4	CTOD
143	CROSS PLATFORM DEVELOPMENT FRAMEWORKS	22CPD3304R	PEC-3	SECURE MOBILE APPLICATION DEVELOPMENT	R	2	0	2	4	4	8	CTOD
144	CROSS PLATFORM DEVELOPMENT FRAMEWORKS	22CPD3304A	PEC-3	SECURE MOBILE APPLICATION DEVELOPMENT	A	3	0	4	4	6	11	CTOD
145	CROSS PLATFORM DEVELOPMENT FRAMEWORKS	22CPD3304P	PEC-3	SECURE MOBILE APPLICATION DEVELOPMENT	P	3	0	4	4	6	11	CTOD
146	CROSS PLATFORM DEVELOPMENT FRAMEWORKS	22CPD3405M	PEC-4	UX DESIGN	M	3	0	0	0	3	3	CTOD
147	CROSS PLATFORM DEVELOPMENT FRAMEWORKS	22CPD3406M	PEC-4	META REACT NATIVE SPECIALIZATION	M	3	0	0	0	3	3	CTOD
148	CROSS PLATFORM DEVELOPMENT FRAMEWORKS	22CPD3507	PEC-5	ADVANCED MOBILE APPLICATION DEVELOPMENT	R	2	0	2	0	3	4	CTOD
149	CROSS PLATFORM DEVELOPMENT FRAMEWORKS	22CPD3508	PEC-5	CROSS PLATFORM USER INTERFACE DESIGN	R	2	0	2	0	3	4	CTOD
150	CYBER PHYSICAL SYSTEMS & IOT	22CPS3101R	PEC-1	IOT SENSING AND ACTUATING DEVICES	R	2	0	2	4	4	8	FIOT
151	CYBER PHYSICAL SYSTEMS & IOT	22CPS3101A	PEC-1	IOT SENSING AND ACTUATING DEVICES	A	3	0	4	4	6	11	FIOT
152	CYBER PHYSICAL SYSTEMS & IOT	22CPS3101P	PEC-1	IOT SENSING AND ACTUATING DEVICES	P	3	0	4	4	6	11	FIOT
153	CYBER PHYSICAL SYSTEMS & IOT	22CPS3202	PEC-2	INTERNET OF THINGS ARCHITECTURES AND PROTOCOLS	R	2	0	2	0	3	4	NPS
154	CYBER PHYSICAL SYSTEMS & IOT	22CPS3303R	PEC-3	CYBER PHYSICAL SYSTEMS	R	2	0	2	4	4	8	NPS
155	CYBER PHYSICAL SYSTEMS & IOT	22CPS3303A	PEC-3	CYBER PHYSICAL SYSTEMS	A	3	0	4	4	6	11	NPS
156	CYBER PHYSICAL SYSTEMS & IOT	22CPS3303P	PEC-3	CYBER PHYSICAL SYSTEMS	P	3	0	4	4	6	11	NPS
157	CYBER PHYSICAL SYSTEMS & IOT	22CPS3404M	PEC-4	FOUNDATIONS OF HYBRID AND EMBEDDED SYSTEMS	M	3	0	0	0	3	3	MFC
158	CYBER PHYSICAL SYSTEMS & IOT	22CPS3505	PEC-5	CLOUD COMPUTING FOR IOT ENGINEERS	R	2	0	2	0	3	4	FIOT
159	CYBER PHYSICAL SYSTEMS & IOT	22CPS3506	PEC-5	WIRELESS SENSOR NETWORKS	R	2	0	2	0	3	4	NPS
160	CYBER PHYSICAL SYSTEMS & IOT	22CPS3507	PEC-5	EDGE COMPUTING	R	2	0	2	0	3	4	OS

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161	CYBER SECURITY & BLOCKCHAIN TECHNOLOGY	22CSB3101R	PEC-1	CRYPT ANALYSIS & CYBER DEFENSE	R	2	0	2	4	4	8	NPS
162	CYBER SECURITY & BLOCKCHAIN TECHNOLOGY	22CSB3101A	PEC-1	CRYPT ANALYSIS & CYBER DEFENSE	A	3	0	4	4	6	11	NPS
163	CYBER SECURITY & BLOCKCHAIN TECHNOLOGY	22CSB3101P	PEC-1	CRYPT ANALYSIS & CYBER DEFENSE	P	3	0	4	4	6	11	NPS
164	CYBER SECURITY & BLOCKCHAIN TECHNOLOGY	22CSB3202	PEC-2	NETWORK & INFRASTRUCTURE SECURITY	R	2	0	2	0	3	4	NPS
165	CYBER SECURITY & BLOCKCHAIN TECHNOLOGY	22CSB3203	PEC-2	INTRODUCTION TO BLOCKCHAIN & CRYPTO CURRENCIES	R	2	0	2	0	3	4	NPS
166	CYBER SECURITY & BLOCKCHAIN TECHNOLOGY	22CSB3304R	PEC-3	DIGITAL FORENSICS	R	2	0	2	4	4	8	CACD
167	CYBER SECURITY & BLOCKCHAIN TECHNOLOGY	22CSB3304A	PEC-3	DIGITAL FORENSICS	A	3	0	4	4	6	11	CACD
168	CYBER SECURITY & BLOCKCHAIN TECHNOLOGY	22CSB3304P	PEC-3	DIGITAL FORENSICS	P	3	0	4	4	6	11	CACD
169	CYBER SECURITY & BLOCKCHAIN TECHNOLOGY	22CSB3405M	PEC-4	DATABASE SYSTEM & SECURITY	M	3	0	0	0	3	3	DBMS
170	CYBER SECURITY & BLOCKCHAIN TECHNOLOGY	22CSB3406M	PEC-4	PROGRAMMING FOR SMART CONTRACTS	M	3	0	0	0	3	3	IBCC
171	CYBER SECURITY & BLOCKCHAIN TECHNOLOGY	22CSB3407M	PEC-4	CLOUD SECURITY	M	3	0	0	0	3	3	NPS
172	CYBER SECURITY & BLOCKCHAIN TECHNOLOGY	22CSB3508	PEC-5	SECURE SOFTWARE ENGINEERING	R	2	0	2	0	3	4	ASE
173	CYBER SECURITY & BLOCKCHAIN TECHNOLOGY	22CSB3509	PEC-5	WEB SECURITY	R	2	0	2	0	3	4	NPS
174	CYBER SECURITY & BLOCKCHAIN TECHNOLOGY	22CSB3510	PEC-5	SECURITY GOVERNANCE & MANAGEMENT	R	2	0	2	0	3	4	CNS
175	DATA COMMUNICATIONS	22DCS3101R	PEC-1	4G WIRELESS TECHNOLOGIES AND CELLULAR COMMUNICATION	R	2	0	2	4	4	8	WC
176	DATA COMMUNICATIONS	22DCS3101A	PEC-1	4G WIRELESS TECHNOLOGIES AND CELLULAR COMMUNICATION	A	3	0	4	4	6	11	WC
177	DATA COMMUNICATIONS	22DCS3101P	PEC-1	4G WIRELESS TECHNOLOGIES AND CELLULAR COMMUNICATION	P	3	0	4	4	6	11	WC
178	DATA COMMUNICATIONS	22DCS3202	PEC-2	MODERN SATELLITE COMMUNICATION SYSTEMS	R	2	0	2	0	3	4	WC
179	DATA COMMUNICATIONS	22DCS3303R	PEC-3	5G WIRELESS TECHNOLOGIES	R	2	0	2	4	4	8	4GWTCC
180	DATA COMMUNICATIONS	22DCS3303A	PEC-3	5G WIRELESS TECHNOLOGIES	A	3	0	4	4	6	11	4GWTCC
181	DATA COMMUNICATIONS	22DCS3303P	PEC-3	5G WIRELESS TECHNOLOGIES	P	3	0	4	4	6	11	4GWTCC
182	DATA COMMUNICATIONS	22DCS3404M	PEC-4	OPTICAL WIRELESS COMMUNICATIONS	M	3	0	0	0	3	3	4GWTCC
183	DATA COMMUNICATIONS	22DCS3505	PEC-5	MACHINE LEARNING FOR WIRELESS COMMUNICATION	R	2	0	2	0	3	4	4GWTCC

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184	DATA SCIENCE & BIG DATA ANALYTICS	22DSB3101R	PEC-1	DATA ANALYTICS AND VISUALIZATION	R	2	0	2	4	4	8	DDAIS, CIS
185	DATA SCIENCE & BIG DATA ANALYTICS	22DSB3101A	PEC-1	DATA ANALYTICS AND VISUALIZATION	A	3	0	4	4	6	11	DDAIS, CIS
186	DATA SCIENCE & BIG DATA ANALYTICS	22DSB3101P	PEC-1	DATA ANALYTICS AND VISUALIZATION	P	3	0	4	4	6	11	DDAIS, CIS
187	DATA SCIENCE & BIG DATA ANALYTICS	22DSB3202	PEC-2	DATA WAREHOUSING & MINING	R	2	0	2	0	3	4	DBMS
188	DATA SCIENCE & BIG DATA ANALYTICS	22DSB3303R	PEC-3	BIG DATA ANALYTICS	R	2	0	2	4	4	8	DBMS
189	DATA SCIENCE & BIG DATA ANALYTICS	22DSB3303A	PEC-3	BIG DATA ANALYTICS	A	3	0	4	4	6	11	DBMS
190	DATA SCIENCE & BIG DATA ANALYTICS	22DSB3303P	PEC-3	BIG DATA ANALYTICS	P	3	0	4	4	6	11	DBMS
191	DATA SCIENCE & BIG DATA ANALYTICS	22DSB3404M	PEC-4	BIG DATA OPTIMIZATION	M	3	0	0	0	3	3	DBMS
192	DATA SCIENCE & BIG DATA ANALYTICS	22DSB3407M	PEC-4	DATA ANALYTICS ON CLOUD	M	3	0	0	0	3	3	DDAIS
193	DATA SCIENCE & BIG DATA ANALYTICS	22DSB3408M	PEC-4	DIGITAL MEDIA ANALYTICS	M	3	0	0	0	3	3	DDAIS
194	DATA SCIENCE & BIG DATA ANALYTICS	22DSB3509	PEC-5	ADVANCED DATABASES	R	2	0	2	0	3	4	DBMS
195	DATA SCIENCE & BIG DATA ANALYTICS	22DSB3510	PEC-5	BUSINESS ANALYTICS	R	2	0	2	0	3	4	DBMS
196	DATA SCIENCE & BIG DATA ANALYTICS	22DSB3511	PEC-5	GRAPH & WEB ANALYTICS	R	2	0	2	0	3	4	DDAIS
197	DATA SCIENCE & BIG DATA ANALYTICS	22DSB3512	PEC-5	DATA GOVERNANCE ON CLOUD	R	2	0	2	0	3	4	DBMS
198	DISTRIBUTED LEDGER ANALYTICS	22DLA3101R	PEC-1	SYSTEM & NETWORK TRAFFIC SECURITY ANALYTICS	R	2	0	2	4	4	8	DBMS
199	DISTRIBUTED LEDGER ANALYTICS	22DLA3101A	PEC-1	SYSTEM & NETWORK TRAFFIC SECURITY ANALYTICS	A	3	0	4	4	6	11	DBMS
200	DISTRIBUTED LEDGER ANALYTICS	22DLA3101P	PEC-1	SYSTEM & NETWORK TRAFFIC SECURITY ANALYTICS	P	3	0	4	4	6	11	DBMS
201	DISTRIBUTED LEDGER ANALYTICS	22DLA3202	PEC-2	AUTOMATED NETWORK ANALYSIS	R	2	0	2	0	3	4	DBMS
202	DISTRIBUTED LEDGER ANALYTICS	22DLA3203	PEC-2	BLOCKCHAIN TECHNOLOGY FOR DIGITAL TRANSFORMATION	R	2	0	2	0	3	4	DBMS
203	DISTRIBUTED LEDGER ANALYTICS	22DLA3304R	PEC-3	MULTI AGENT SYSTEMS	R	2	0	2	4	4	8	DBMS
204	DISTRIBUTED LEDGER ANALYTICS	22DLA3304A	PEC-3	MULTI AGENT SYSTEMS	R	3	0	4	4	6	11	DBMS
205	DISTRIBUTED LEDGER ANALYTICS	22DLA3304P	PEC-3	MULTI AGENT SYSTEMS	R	3	0	4	4	6	11	DBMS
206	DISTRIBUTED LEDGER ANALYTICS	22DLA3405M	PEC-4	BLOCKCHAIN ANALYTICS	M	3	0	0	0	3	3	DBMS

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207	DISTRIBUTED LEDGER ANALYTICS	22DLA3406M	PEC-4	CRYPTOCURRENCY AND BLOCKCHAIN TECHNOLOGY	M	3	0	0	0	3	3	DBMS
208	DISTRIBUTED LEDGER ANALYTICS	22DLA3507	PEC-5	DISTRIBUTED LEDGER ARCHITECTURE FOR AUTOMATION	R	2	0	2	0	3	4	DBMS
209	DISTRIBUTED LEDGER ANALYTICS	22DLA3508	PEC-5	PERMISSIONED DISTRIBUTED LEDGER	R	2	0	2	0	3	4	DBMS
210	EMBEDDED SYSTEMS	22EDS3101R	PEC-1	ADVANCED EMBEDDED SYSTEMS	R	2	0	2	4	4	8	ESD
211	EMBEDDED SYSTEMS	22EDS3101A	PEC-1	ADVANCED EMBEDDED SYSTEMS	A	3	0	4	4	6	11	ESD
212	EMBEDDED SYSTEMS	22EDS3101P	PEC-1	ADVANCED EMBEDDED SYSTEMS	P	3	0	4	4	6	11	ESD
213	EMBEDDED SYSTEMS	22EDS3202	PEC-2	EMBEDDED SYSTEMS FOR IOT	R	2	0	2	0	3	4	ESD
214	EMBEDDED SYSTEMS	22EDS3303R	PEC-3	EMBEDDED AND REAL-TIME SYSTEMS	R	2	0	2	4	4	8	AES
215	EMBEDDED SYSTEMS	22EDS3303A	PEC-3	EMBEDDED AND REAL-TIME SYSTEMS	A	3	0	4	4	6	11	AES
216	EMBEDDED SYSTEMS	22EDS3303P	PEC-3	EMBEDDED AND REAL-TIME SYSTEMS	P	3	0	4	4	6	11	AES
217	EMBEDDED SYSTEMS	22EDS3404M	PEC-4	CLOUD ARCHITECTURE IN IOT	M	3	0	0	0	3	3	AES
218	EMBEDDED SYSTEMS	22EDS3505	PEC-5	EDGE COMPUTING & DATA ANALYTICS IN IOT	R	2	0	2	0	3	4	AES
219	E-MOBILITY ENGINEERING	22EME3101R	PEC-1	POWER TRAIN DESIGN FOR ELECTRIC VEHICLE	A	3	0	4	4	6	11	ELM OR ET
220	E-MOBILITY ENGINEERING	22EME3101A	PEC-1	POWER TRAIN DESIGN FOR ELECTRIC VEHICLE	P	3	0	4	4	6	11	ELM OR ET
221	E-MOBILITY ENGINEERING	22EME3101P	PEC-1	POWER TRAIN DESIGN FOR ELECTRIC VEHICLE	R	2	0	2	0	3	4	ELM OR ET
222	E-MOBILITY ENGINEERING	22EME3202	PEC-2	COMMUNICATION PROTOCOLS & TESTING OF ELECTRIC VEHICLE	R	2	0	2	0	3	4	ELM OR ET
223	E-MOBILITY ENGINEERING	22EME3203	PEC-2	AUTONOMOUS VEHICLES & AUTOMOTIVE ELECTRONICS	R	2	0	2	0	3	4	ELM OR ET
224	E-MOBILITY ENGINEERING	22EME3304R	PEC-3	CHARGING STATIONS FOR ELECTRIC VEHICLES	R	2	0	2	4	4	8	ELM OR ET
225	E-MOBILITY ENGINEERING	22EME3304A	PEC-3	CHARGING STATIONS FOR ELECTRIC VEHICLES	A	3	0	4	4	6	11	ELM OR ET
226	E-MOBILITY ENGINEERING	22EME3304P	PEC-3	CHARGING STATIONS FOR ELECTRIC VEHICLES	P	3	0	4	4	6	11	ELM OR ET
227	E-MOBILITY ENGINEERING	22EME3405M	PEC-4	INTRODUCTION TO BATTERY-MANAGEMENT SYSTEMS	M	3	0	0	0	3	3	TD
228	E-MOBILITY ENGINEERING	22EME3406M	PEC-4	BATTERY STATE ESTIMATION ALGORITHMS FOR ELECTRIC VEHICLE	M	3	0	0	0	3	3	ELM OR ET
229	E-MOBILITY ENGINEERING	22EME3507	PEC-5	AI AND IOT FOR ELECTRIC VEHICLE	R	2	0	2	0	3	4	ELM OR ET

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230	E-MOBILITY ENGINEERING	22EME3508	PEC-5	EV SYSTEM AND WIRING DESIGN	R	2	0	2	0	3	4	ELM OR ET
231	ENERGY ENGINEERING & COMPUTATIONAL FLUID DYNAMICS	22ECF3101R	PEC-1	SOLAR ENERGY TECHNOLOGIES	R	2	0	2	4	4	8	TD
232	ENERGY ENGINEERING & COMPUTATIONAL FLUID DYNAMICS	22ECF3101A	PEC-1	SOLAR ENERGY TECHNOLOGIES	A	3	0	4	4	6	11	TD
233	ENERGY ENGINEERING & COMPUTATIONAL FLUID DYNAMICS	22ECF3101P	PEC-1	SOLAR ENERGY TECHNOLOGIES	P	2	0	2	4	4	8	TD
234	ENERGY ENGINEERING & COMPUTATIONAL FLUID DYNAMICS	22ECF3202	PEC-2	ADVANCED ENERGY STORAGE SYSTEMS	R	2	0	2	0	3	4	TD
235	ENERGY ENGINEERING & COMPUTATIONAL FLUID DYNAMICS	22ECF3203	PEC-2	THERMAL MANAGEMENT OF ELECTRIC AND ELECTRONIC SYSTEMS	R	3	0	0	0	3	3	TD
236	ENERGY ENGINEERING & COMPUTATIONAL FLUID DYNAMICS	22ECF3304R	PEC-3	COMPUTATIONAL FLUID FLOW AND HEAT TRANSFER-FDM APPROACH	R	2	0	2	4	4	8	TD
237	ENERGY ENGINEERING & COMPUTATIONAL FLUID DYNAMICS	22ECF3304A	PEC-3	COMPUTATIONAL FLUID FLOW AND HEAT TRANSFER-FDM APPROACH	A	3	0	4	4	6	11	TD
238	ENERGY ENGINEERING & COMPUTATIONAL FLUID DYNAMICS	22ECF3304P	PEC-3	COMPUTATIONAL FLUID FLOW AND HEAT TRANSFER-FDM APPROACH	P	3	0	4	4	6	11	TD
239	ENERGY ENGINEERING & COMPUTATIONAL FLUID DYNAMICS	22ECF3405M	PEC-4	ENERGY AUDIT AND MANAGEMENT	M	3	0	0	0	3	3	TD
240	ENERGY ENGINEERING & COMPUTATIONAL FLUID DYNAMICS	22ECF3406M	PEC-4	REFRIGERATION & AIR CONDITIONING	M	3	0	0	0	3	3	TD
241	ENERGY ENGINEERING & COMPUTATIONAL FLUID DYNAMICS	22ECF3507	PEC-5	CFD FOR COMPRESSIBLE AND INCOMPRESSIBLE FLOWS	R	2	0	2	0	3	4	TD
242	ENERGY ENGINEERING & COMPUTATIONAL FLUID DYNAMICS	22ECF3508	PEC-5	HYDROGEN AND FUEL CELL TECHNOLOGIES	R	2	0	2	0	3	4	TD
243	ENGINEERING DESIGN	22EGD3101R	PEC-1	MODELING ANALYSIS & DESIGN OF ROBOTIC SYSTEMS	R	2	0	2	4	4	8	KDOM
244	ENGINEERING DESIGN	22EGD3101A	PEC-1	MODELING ANALYSIS & DESIGN OF ROBOTIC SYSTEMS	R	3	0	4	4	6	11	KDOM
245	ENGINEERING DESIGN	22EGD3101P	PEC-1	MODELING ANALYSIS & DESIGN OF ROBOTIC SYSTEMS	R	3	0	4	4	6	11	KDOM
246	ENGINEERING DESIGN	22EGD3202	PEC-2	CREEP, FATIGUE AND FRACTURE MECHANICS	R	3	0	0	0	3	3	SM
247	ENGINEERING DESIGN	22EGD3203	PEC-2	THEORY OF ELASTICITY AND PLASTICITY	R	3	0	0	0	3	3	SM
248	ENGINEERING DESIGN	22EGD3304R	PEC-3	SUSTAINABLE DESIGN & SOCIAL INNOVATION IN ENGINEERING DESIGN	R	2	0	2	4	4	8	MED
249	ENGINEERING DESIGN	22EGD3304A	PEC-3	SUSTAINABLE DESIGN & SOCIAL INNOVATION IN ENGINEERING DESIGN	A	3	0	4	4	6	11	MED
250	ENGINEERING DESIGN	22EGD3304P	PEC-3	SUSTAINABLE DESIGN & SOCIAL INNOVATION IN ENGINEERING DESIGN	P	3	0	4	4	6	11	MED
251	ENGINEERING DESIGN	22EGD3405M	PEC-4	ADVANCED VIBRATIONS	M	3	0	0	0	3	3	KDOM
252	ENGINEERING DESIGN	22EGD3406M	PEC-4	MECHANICS OF COMPOSITE MATERIALS	M	3	0	0	0	3	3	MED

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253	ENGINEERING DESIGN	22EGD3507	PEC-5	ADVANCED STRENGTH OF MATERIALS	R	2	0	2	0	3	4	SM
254	ENGINEERING DESIGN	22EGD3508	PEC-5	HYBRID AND ELECTRIC VEHICLE DESIGN	R	2	0	2	0	3	4	SM
255	ENVIRONMENTAL ENGINEERING	22ELE3101R	PEC-1	RIVER ENGINEERING	R	2	0	2	4	4	8	WRE
256	ENVIRONMENTAL ENGINEERING	22ELE3101A	PEC-1	RIVER ENGINEERING	A	3	0	4	4	6	11	WRE
257	ENVIRONMENTAL ENGINEERING	22ELE3101P	PEC-1	RIVER ENGINEERING	P	3	0	4	4	6	11	WRE
258	ENVIRONMENTAL ENGINEERING	22ELE3202	PEC-2	SOLID WASTE MANAGEMENT AND LANDFILLS	R	2	0	2	0	3	4	EE
259	ENVIRONMENTAL ENGINEERING	22ELE3203	PEC-2	DESIGN OF HYDRAULIC STRUCTURES	R	2	0	2	0	3	4	FM&H
260	ENVIRONMENTAL ENGINEERING	22ELE3304R	PEC-3	WATER RESOURCES FIELD METHODS	R	2	0	2	4	4	8	FM&H
261	ENVIRONMENTAL ENGINEERING	22ELE3304A	PEC-3	WATER RESOURCES FIELD METHODS	A	3	0	4	4	6	11	FM&H
262	ENVIRONMENTAL ENGINEERING	22ELE3304P	PEC-3	WATER RESOURCES FIELD METHODS	P	3	0	4	4	6	11	FM&H
263	ENVIRONMENTAL ENGINEERING	22ELE3405M	PEC-4	URBAN WATER HYDROLOGY AND HYDRAULICS	M	3	0	0	0	3	3	FM&H
264	ENVIRONMENTAL ENGINEERING	22ELE3406M	PEC-4	ENVIRONMENTAL IMPACT ASSESSMENT AND LIFE CYCLE ANALYSES	M	3	0	0	0	3	3	EE
265	ENVIRONMENTAL ENGINEERING	22ELE3507	PEC-5	PHYSICO-CHEMICAL PROCESSES FOR WATER AND WASTEWATER TREATMENT	R	2	0	2	0	3	4	FM&H
266	ENVIRONMENTAL ENGINEERING	22ELE3508	PEC-5	DESIGN OF HYDRAULIC STRUCTURES	R	2	0	2	0	3	4	FM&H
267	GAME DEVELOPMENT & UX DESIGN	22GDU3101R	PEC-1	PROGRAMMING FOR GAME DEVELOPMENT	R	2	0	2	4	4	8	OS
268	GAME DEVELOPMENT & UX DESIGN	22GDU3101A	PEC-1	PROGRAMMING FOR GAME DEVELOPMENT	A	3	0	4	4	6	11	OS
269	GAME DEVELOPMENT & UX DESIGN	22GDU3101P	PEC-1	PROGRAMMING FOR GAME DEVELOPMENT	P	3	0	4	4	6	11	OS
270	GAME DEVELOPMENT & UX DESIGN	22GDU3202	PEC-2	UX DESIGN	R	2	0	2	0	3	4	DTI
271	GAME DEVELOPMENT & UX DESIGN	22GDU3303R	PEC-3	AR & VR APPLICATION DEVELOPMENT	R	2	0	2	4	4	8	OS
272	GAME DEVELOPMENT & UX DESIGN	22GDU3303A	PEC-3	AR & VR APPLICATION DEVELOPMENT	A	3	0	4	4	6	11	OS
273	GAME DEVELOPMENT & UX DESIGN	22GDU3303P	PEC-3	AR & VR APPLICATION DEVELOPMENT	P	3	0	4	4	6	11	OS
274	GAME DEVELOPMENT & UX DESIGN	22GDU3404M	PEC-4	COMPUTER GRAPHICS	M	3	0	0	0	3	3	NIL
275	GAME DEVELOPMENT & UX DESIGN	22GDU3405M	PEC-4	3D MODELLING & ANIMATION	M	3	0	0	0	3	3	NIL

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276	GAME DEVELOPMENT & UX DESIGN	22GDU3506	PEC-5	PRINCIPLES OF GAME DESIGN	R	2	0	2	0	3	4	UXD
277	GAME DEVELOPMENT & UX DESIGN	22GDU3507	PEC-5	BUSINESS OF GAMES & ENTREPRENEURSHIP	R	2	0	2	0	3	4	UXD
278	GENETIC ENGINEERING	22GEG3101R	PEC-1	MOLECULAR GENETICS	R	2	0	2	4	4	8	GE
279	GENETIC ENGINEERING	22GEG3101A	PEC-1	MOLECULAR GENETICS	A	3	0	4	4	6	11	GE
280	GENETIC ENGINEERING	22GEG3101P	PEC-1	MOLECULAR GENETICS	P	3	0	4	4	6	11	GE
281	GENETIC ENGINEERING	22GEG3202	PEC-2	MOLECULAR EXPRESSION TECHNOLOGY	R	2	0	2	0	3	4	GE
282	GENETIC ENGINEERING	22GEG3203	PEC-2	TRANSGENIC TECHNOLOGY	R	2	0	2	0	3	4	GE
283	GENETIC ENGINEERING	22GEG3304R	PEC-3	MOLECULAR MARKERS AND DIAGNOSTICS	R	2	0	2	4	4	8	GE
284	GENETIC ENGINEERING	22GEG3304A	PEC-3	MOLECULAR MARKERS AND DIAGNOSTICS	A	3	0	4	4	6	11	GE
285	GENETIC ENGINEERING	22GEG3304P	PEC-3	MOLECULAR MARKERS AND DIAGNOSTICS	P	3	0	4	4	6	11	GE
286	GENETIC ENGINEERING	22GEG3405M	PEC-4	GENOMICS AND PROTEOMICS	M	3	0	0	0	3	3	GE
287	GENETIC ENGINEERING	22GEG3406M	PEC-4	DNA FORENSICS	M	3	0	0	0	3	3	GE
288	GENETIC ENGINEERING	22GEG3507	PEC-5	MICROBIAL GENETICS	R	2	0	2	0	3	4	GE
289	GENETIC ENGINEERING	22GEG3508	PEC-5	GENE AND ENVIRONMENT	R	2	0	2	0	3	4	GE
290	GREEN ENERGY TECHNOLOGIES	22GET3101R	PEC-1	SOLAR PV AND MICRO ENERGY TECHNOLOGIES	R	2	0	2	4	4	8	(PGTD OR EPE OR E
291	GREEN ENERGY TECHNOLOGIES	22GET3101A	PEC-1	SOLAR PV AND MICRO ENERGY TECHNOLOGIES	A	3	0	4	4	6	11	(PGTD OR EPE OR E
292	GREEN ENERGY TECHNOLOGIES	22GET3101P	PEC-1	SOLAR PV AND MICRO ENERGY TECHNOLOGIES	P	3	0	4	4	6	11	(PGTD OR EPE OR E
293	GREEN ENERGY TECHNOLOGIES	22GET3202	PEC-2	WIND AND ENERGY STORAGE TECHNOLOGIES	R	2	0	2	0	3	4	(PGTD OR EPE OR E
294	GREEN ENERGY TECHNOLOGIES	22GET3203	PEC-2	ENERGY ECONOMICS AND POLICY	R	2	0	2	0	3	4	(PGTD OR EPE OR E
295	GREEN ENERGY TECHNOLOGIES	22GET3304R	PEC-3	GRID INTEGRATION OF RENEWABLE ENERGY SOURCES	R	2	0	2	4	4	8	(PGTD OR EPE OR E
296	GREEN ENERGY TECHNOLOGIES	22GET3304A	PEC-3	GRID INTEGRATION OF RENEWABLE ENERGY SOURCES	A	3	0	4	4	6	11	(PGTD OR EPE OR E
297	GREEN ENERGY TECHNOLOGIES	22GET3304P	PEC-3	GRID INTEGRATION OF RENEWABLE ENERGY SOURCES	P	3	0	4	4	6	11	(PGTD OR EPE OR E
298	GREEN ENERGY TECHNOLOGIES	22GET3405M	PEC-4	ENERGY MANAGEMENT AND GREEN BUILDING	M	3	0	0	0	3	3	(PGTD OR EPE OR E

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299	GREEN ENERGY TECHNOLOGIES	22GET3406M	PEC-4	HYDROGEN FUEL CELL TECHNOLOGY	M	3	0	0	0	3	3	PGTD OR EPE OR E
300	GREEN ENERGY TECHNOLOGIES	22GET3507	PEC-5	AI AND IOT FOR GREEN ENERGY INTEGRATION	R	2	0	2	0	3	4	PGTD OR EPE OR E
301	GREEN ENERGY TECHNOLOGIES	22GET3508	PEC-5	POWER ELECTRONICS FOR RENEWABLE ENERGY SYSTEMS	R	2	0	2	0	3	4	PGTD OR EPE OR E
302	HEALTHCARE DATA ANALYTICS	22HDA3101R	PEC-1	INTELLIGENT SYSTEMS FOR DISEASE PREDICTION & DRUG DISCOVERY	R	2	0	2	4	4	8	DDAIS
303	HEALTHCARE DATA ANALYTICS	22HDA3101A	PEC-1	INTELLIGENT SYSTEMS FOR DISEASE PREDICTION & DRUG DISCOVERY	A	3	0	4	4	6	11	DDAIS
304	HEALTHCARE DATA ANALYTICS	22HDA3101P	PEC-1	INTELLIGENT SYSTEMS FOR DISEASE PREDICTION & DRUG DISCOVERY	P	3	0	4	4	6	11	DDAIS
305	HEALTHCARE DATA ANALYTICS	22HDA3202	PEC-2	BIO MEDICAL INFORMATICS	R	2	0	2	0	3	4	DDAIS
306	HEALTHCARE DATA ANALYTICS	22HDA3203	PEC-2	GENETIC PROGRAMMING	R	2	0	2	0	3	4	DDAIS
307	HEALTHCARE DATA ANALYTICS	22HDA3204	PEC-2	PYTHON FOR GENOMIC DATA SCIENCE	R	2	0	2	0	3	4	DDAIS
308	HEALTHCARE DATA ANALYTICS	22HDA3305R	PEC-3	COMPUTATIONAL NEUROSCIENCE	R	2	0	2	4	4	8	DDAIS
309	HEALTHCARE DATA ANALYTICS	22HDA3305A	PEC-3	COMPUTATIONAL NEUROSCIENCE	A	3	0	4	4	6	11	DDAIS
310	HEALTHCARE DATA ANALYTICS	22HDA3305P	PEC-3	COMPUTATIONAL NEUROSCIENCE	P	3	0	4	4	6	11	DDAIS
311	HEALTHCARE DATA ANALYTICS	22HDA3406M	PEC-4	NGS SEQUENCING AND DATA ANALYSIS	M	3	0	0	0	3	3	DDAIS
312	HEALTHCARE DATA ANALYTICS	22HDA3407M	PEC-4	CLINICAL DATA SCIENCE	M	3	0	0	0	3	3	DDAIS
313	HEALTHCARE DATA ANALYTICS	22HDA3408M	PEC-4	INTRODUCTION TO GENOMIC TECHNOLOGIES	M	3	0	0	0	3	3	DDAIS
314	HEALTHCARE DATA ANALYTICS	22HDA3509	PEC-5	MOLECULAR MODELING AND DRUG DESIGN	R	2	0	2	0	3	4	DDAIS
315	HEALTHCARE DATA ANALYTICS	22HDA3510	PEC-5	GENOMIC DATA SCIENCE & CLUSTERING	R	2	0	2	0	3	4	DDAIS
316	HEALTHCARE DATA ANALYTICS	22HDA3511	PEC-5	EPI GENETIC CONTROL OF GENE EXPRESSION	R	2	0	2	0	3	4	DDAIS
317	INDUSTRIAL AUTOMATION	22ILA3101R	PEC-1	INTRODUCTION TO INDUSTRIAL INTERNET OF THINGS	R	2	0	2	4	4	8	ELM OR FITS OR ET
318	INDUSTRIAL AUTOMATION	22ILA3101A	PEC-1	INTRODUCTION TO INDUSTRIAL INTERNET OF THINGS	A	3	0	4	4	6	11	ELM OR FITS OR ET
319	INDUSTRIAL AUTOMATION	22ILA3101P	PEC-1	INTRODUCTION TO INDUSTRIAL INTERNET OF THINGS	P	3	0	4	4	6	11	ELM OR FITS OR ET
320	INDUSTRIAL AUTOMATION	22ILA3202	PEC-2	INDUSTRIAL AUTOMATION AND ROBOTICS	R	2	0	2	0	3	4	ELM OR ET
321	INDUSTRIAL AUTOMATION	22ILA3203	PEC-2	EDGE COMPUTING FOR INDUSTRY 4.0	R	2	0	2	0	3	4	ELM OR ET

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322	INDUSTRIAL AUTOMATION	22ILA3304R	PEC-3	INDUSTRIAL DRIVES AND CONTROL	R	2	0	2	4	4	8	ELM OR ET
323	INDUSTRIAL AUTOMATION	22ILA3304A	PEC-3	INDUSTRIAL DRIVES AND CONTROL	A	3	0	4	4	6	11	ELM OR ET
324	INDUSTRIAL AUTOMATION	22ILA3304P	PEC-3	INDUSTRIAL DRIVES AND CONTROL	P	3	0	4	4	6	11	ELM OR ET
325	INDUSTRIAL AUTOMATION	22ILA3405M	PEC-4	INDUSTRIAL COMMUNICATION PROTOCOLS AND CYBER SECURITY	M	3	0	0	0	3	3	ELM OR ET
326	INDUSTRIAL AUTOMATION	22ILA3406M	PEC-4	DIGITAL MANUFACTURING AND DESIGN	M	3	0	0	0	3	3	ELM OR ET
327	INDUSTRIAL AUTOMATION	22ILA3507	PEC-5	SMART SENSORS AND SENSOR NETWORKING	R	2	0	2	0	3	4	ELM OR ET
328	INDUSTRIAL AUTOMATION	22ILA3508	PEC-5	PLC PROGRAMMING & CONTROL	R	2	0	2	0	3	4	ELM OR ET
329	INDUSTRIAL BIOTECHNOLOGY	22IBT3101R	PEC-1	PHARMACEUTICAL BIOTECHNOLOGY	R	2	0	2	4	4	8	MBG
330	INDUSTRIAL BIOTECHNOLOGY	22IBT3101A	PEC-1	PHARMACEUTICAL BIOTECHNOLOGY	A	3	0	4	4	6	11	MBG
331	INDUSTRIAL BIOTECHNOLOGY	22IBT3101P	PEC-1	PHARMACEUTICAL BIOTECHNOLOGY	P	3	0	4	4	6	11	MBG
332	INDUSTRIAL BIOTECHNOLOGY	22IBT3202	PEC-2	PHARMACOVIGILANCE AND SAFETY	R	2	0	2	0	3	4	MBG
333	INDUSTRIAL BIOTECHNOLOGY	22IBT3203	PEC-2	BIOPROCESS ECONOMICS AND PLANT DESIGN	R	2	0	2	0	3	4	MBG
334	INDUSTRIAL BIOTECHNOLOGY	22IBT3304R	PEC-3	ENZYME ENGINEERING	R	2	0	2	4	4	8	MBG
335	INDUSTRIAL BIOTECHNOLOGY	22IBT3304A	PEC-3	ENZYME ENGINEERING	A	3	0	4	4	6	11	MBG
336	INDUSTRIAL BIOTECHNOLOGY	22IBT3304P	PEC-3	ENZYME ENGINEERING	P	3	0	4	4	6	11	MBG
337	INDUSTRIAL BIOTECHNOLOGY	22IBT3405M	PEC-4	BIOPROCESS VALIDATION AND CGMP	M	3	0	0	0	3	3	MBG
338	INDUSTRIAL BIOTECHNOLOGY	22IBT3406M	PEC-4	FOOD TECHNOLOGY	M	3	0	0	0	3	3	MBG
339	INDUSTRIAL BIOTECHNOLOGY	22IBT3507	PEC-5	MICROBIAL TECHNOLOGY	R	2	0	2	0	3	4	MBG
340	INDUSTRIAL BIOTECHNOLOGY	22IBT3508	PEC-5	METABOLIC ENGINEERING	R	2	0	2	0	3	4	MBG
341	INTELLIGENT MULTIMEDIA PROCESSING	22IMP3101R	PEC-1	NATURAL LANGUAGE PROCESSING & APPLICATIONS	R	2	0	2	4	4	8	DNA
342	INTELLIGENT MULTIMEDIA PROCESSING	22IMP3101A	PEC-1	NATURAL LANGUAGE PROCESSING & APPLICATIONS	A	3	0	4	4	6	11	DNA
343	INTELLIGENT MULTIMEDIA PROCESSING	22IMP3101P	PEC-1	NATURAL LANGUAGE PROCESSING & APPLICATIONS	P	3	0	4	4	6	11	DNA
344	INTELLIGENT MULTIMEDIA PROCESSING	22IMP3202	PEC-2	DATA ENGINEERING	R	2	0	2	0	3	4	DNA

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345	INTELLIGENT MULTIMEDIA PROCESSING	22IMP3303R	PEC-3	BIO MEDICAL SIGNAL AND IMAGE ANALYSIS	R	2	0	2	4	4	8	NLPA
346	INTELLIGENT MULTIMEDIA PROCESSING	22IMP3303A	PEC-3	BIO MEDICAL SIGNAL AND IMAGE ANALYSIS	A	3	0	4	4	6	11	NLPA
347	INTELLIGENT MULTIMEDIA PROCESSING	22IMP3303P	PEC-3	BIO MEDICAL SIGNAL AND IMAGE ANALYSIS	P	3	0	4	4	6	11	NLPA
348	INTELLIGENT MULTIMEDIA PROCESSING	22IMP3404M	PEC-4	DATA VISUALIZATION	M	3	0	0	0	3	3	NLPA
349	INTELLIGENT MULTIMEDIA PROCESSING	22IMP3505	PEC-5	MULTI MEDIA PROCESSING	R	2	0	2	0	3	4	NLPA
350	INTELLIGENT MULTIMEDIA PROCESSING	22IMP3506	PEC-5	INTRODUCTION TO QUANTUM COMPUTING	R	2	0	2	0	3	4	NLPA
351	IOT ANALYTICS	22IOT3101R	PEC-1	INDUSTRIAL INTERNET OF THINGS	R	2	0	2	4	4	8	FIOT
352	IOT ANALYTICS	22IOT3101A	PEC-1	INDUSTRIAL INTERNET OF THINGS	A	3	0	4	4	6	11	FIOT
353	IOT ANALYTICS	22IOT3101P	PEC-1	INDUSTRIAL INTERNET OF THINGS	P	3	0	4	4	6	11	FIOT
354	IOT ANALYTICS	22IOT3202	PEC-2	EDGE COMPUTING	R	2	0	2	0	3	4	OS
355	IOT ANALYTICS	22IOT3203	PEC-2	PRECISION AGRICULTURE	R	2	0	2	0	3	4	FIS
356	IOT ANALYTICS	22IOT3204	PEC-2	SMART FARMING	R	2	0	2	0	3	4	FIS
357	IOT ANALYTICS	22IOT3305R	PEC-3	DEEP LEARNING	R	2	0	2	4	4	8	ML
358	IOT ANALYTICS	22IOT3305A	PEC-3	DEEP LEARNING	A	2	0	2	4	4	8	ML
359	IOT ANALYTICS	22IOT3305P	PEC-3	DEEP LEARNING	P	2	0	2	4	4	8	ML
360	IOT ANALYTICS	22IOT3406M	PEC-4	DATA VISUALISATION TECHNIQUES	M	3	0	0	0	3	3	DBMS
361	IOT ANALYTICS	22IOT3407M	PEC-4	APPLIED MACHINE LEARNING FOR AGRICULTURE	M	3	0	0	0	3	3	FIS
362	IOT ANALYTICS	22IOT3508	PEC-5	BIG DATA ANALYTICS	R	2	0	2	0	3	4	DBMS
363	MANAGEMENT INFORMATION SYSTEMS	22MIS3101R	PEC-1	ENTERPRISE RESOURCE PLANNING	R	2	0	2	4	4	8	MIS
364	MANAGEMENT INFORMATION SYSTEMS	22MIS3101A	PEC-1	ENTERPRISE RESOURCE PLANNING	A	3	0	4	4	6	11	MIS
365	MANAGEMENT INFORMATION SYSTEMS	22MIS3101P	PEC-1	ENTERPRISE RESOURCE PLANNING	P	3	0	4	4	6	11	MIS
366	MANAGEMENT INFORMATION SYSTEMS	22MIS3202	PEC-2	INFORMATION SYSTEM ANALYSIS & DESIGN	R	2	0	2	0	3	4	MIS
367	MANAGEMENT INFORMATION SYSTEMS	22MIS3203	PEC-2	DATA WAREHOUSING AND DATA MINING	R	2	0	2	0	3	4	MIS

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368	MANAGEMENT INFORMATION SYSTEMS	22MIS3304R	PEC-3	BIG DATA ANALYTICS	R	2	0	2	4	4	8	MIS
369	MANAGEMENT INFORMATION SYSTEMS	22MIS3304A	PEC-3	BIG DATA ANALYTICS	A	3	0	4	4	6	11	MIS
370	MANAGEMENT INFORMATION SYSTEMS	22MIS3304P	PEC-3	BIG DATA ANALYTICS	P	3	0	4	4	6	11	MIS
371	MANAGEMENT INFORMATION SYSTEMS	22MIS3405M	PEC-4	INFORMATION SYSTEMS AUDITING, CONTROLS & ASSURANCE	M	3	0	0	0	3	3	MIS
372	MANAGEMENT INFORMATION SYSTEMS	22MIS3406M	PEC-4	PRODUCTIVITY AND SYSTEM DEVELOPMENT	M	3	0	0	0	3	3	MIS
373	MANAGEMENT INFORMATION SYSTEMS	22MIS3507	PEC-5	E-COMMERCE DESIGN & DEVELOPMENT	R	2	0	2	0	3	4	MIS
374	MEDICAL BIOTECHNOLOGY	22MBT3101R	PEC-1	STEM CELL TECHNOLOGY	R	2	0	2	4	4	8	CBY
375	MEDICAL BIOTECHNOLOGY	22MBT3101A	PEC-1	STEM CELL TECHNOLOGY	A	3	0	4	4	6	11	CBY
376	MEDICAL BIOTECHNOLOGY	22MBT3101P	PEC-1	STEM CELL TECHNOLOGY	P	3	0	4	4	6	11	CBY
377	MEDICAL BIOTECHNOLOGY	22MBT3202	PEC-2	VIROLOGY	R	2	0	2	0	3	4	CBY
378	MEDICAL BIOTECHNOLOGY	22MBT3203	PEC-2	TISSUE ENGINEERING	R	2	0	2	0	3	4	CBY
379	MEDICAL BIOTECHNOLOGY	22MBT3304R	PEC-3	HEALTHCARE BIOTECHNOLOGY	R	2	0	2	4	4	8	CBY
380	MEDICAL BIOTECHNOLOGY	22MBT3304A	PEC-3	HEALTHCARE BIOTECHNOLOGY	A	3	0	4	4	6	11	CBY
381	MEDICAL BIOTECHNOLOGY	22MBT3304P	PEC-3	HEALTHCARE BIOTECHNOLOGY	P	3	0	4	4	6	11	CBY
382	MEDICAL BIOTECHNOLOGY	22MBT3405M	PEC-4	CANCER BIOLOGY	M	3	0	0	0	3	3	CBY
383	MEDICAL BIOTECHNOLOGY	22MBT3405MA	PEC-4	CANCER BIOLOGY	M	3	0	0	0	3	3	CBY
384	MEDICAL BIOTECHNOLOGY	22MBT3406M	PEC-4	NEUROBIOLOGY	M	3	0	0	0	3	3	CBY
385	MEDICAL BIOTECHNOLOGY	22MBT3406MA	PEC-4	NEUROBIOLOGY	M	3	0	0	0	3	3	CBY
386	MEDICAL BIOTECHNOLOGY	22MBT3507	PEC-5	BIOELECTRONICS & BIOSENSORS	R	2	0	2	0	3	4	CBY
387	MEDICAL BIOTECHNOLOGY	22MBT3508	PEC-5	NANOBIOTECHNOLOGY	R	2	0	2	0	3	4	CBY
388	RF & MICROWAVE	22RFM3101R	PEC-1	MICROWAVE ENGINEERING	R	2	0	2	4	4	8	RSWP
389	RF & MICROWAVE	22RFM3101A	PEC-1	MICROWAVE ENGINEERING	A	3	0	4	4	6	11	RSWP
390	RF & MICROWAVE	22RFM3101P	PEC-1	MICROWAVE ENGINEERING	P	3	0	4	4	6	11	RSWP

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391	RF & MICROWAVE	22RFM3202	PEC-2	ADVANCED ANTENNA DESIGN FOR WIRELESS AND 5G APPLICATIONS	R	2	0	2	0	3	4	RSWP
392	RF & MICROWAVE	22RFM3303R	PEC-3	MODERN RADAR SYSTEMS & NAVIGATIONAL AIDS	R	2	0	2	4	4	8	ME
393	RF & MICROWAVE	22RFM3303A	PEC-3	MODERN RADAR SYSTEMS & NAVIGATIONAL AIDS	A	3	0	4	4	6	11	ME
394	RF & MICROWAVE	22RFM3303P	PEC-3	MODERN RADAR SYSTEMS & NAVIGATIONAL AIDS	P	3	0	4	4	6	11	ME
395	RF & MICROWAVE	22RFM3404M	PEC-4	RF AND MILLIMETER-WAVE CIRCUIT DESIGN	M	3	0	0	0	3	3	ME
396	RF & MICROWAVE	22RFM3505	PEC-5	SATELLITE DESIGN	R	2	0	2	0	3	4	ME
397	ROBOTICS & AUTOMATION	22RAN3101R	PEC-1	ROBOT MOTION PLANNING, DYNAMICS AND CONTROL	R	2	0	2	4	4	8	KDOM OR FIT
398	ROBOTICS & AUTOMATION	22RAN3101A	PEC-1	ROBOT MOTION PLANNING, DYNAMICS AND CONTROL	A	3	0	4	4	6	11	KDOM OR FIT
399	ROBOTICS & AUTOMATION	22RAN3101P	PEC-1	ROBOT MOTION PLANNING, DYNAMICS AND CONTROL	P	3	0	4	4	6	11	KDOM OR FIT
400	ROBOTICS & AUTOMATION	22RAN3102R	PEC-1	AUTONOMOUS MOBILE ROBOT SYSTEMS	R	2	0	2	4	4	8	IR
401	ROBOTICS & AUTOMATION	22RAN3102A	PEC-1	AUTONOMOUS MOBILE ROBOT SYSTEMS	A	3	0	4	4	6	11	IR
402	ROBOTICS & AUTOMATION	22RAN3102P	PEC-1	AUTONOMOUS MOBILE ROBOT SYSTEMS	P	3	0	4	4	6	11	IR
403	ROBOTICS & AUTOMATION	22RAN3202	PEC-2	AUTONOMOUS VEHICLES & AUTOMOTIVE ELECTRONICS	R	2	0	2	0	3	4	EM
404	ROBOTICS & AUTOMATION	22RAN3203	PEC-2	ROBOT MANIPULATION AND WHEELED MOBILE ROBOTS	R	2	0	2	0	3	4	FIT OR SM
405	ROBOTICS & AUTOMATION	22RAN3304R	PEC-3	ADVANCED ROBOTICS	R	2	0	2	4	4	8	DMR
406	ROBOTICS & AUTOMATION	22RAN3304A	PEC-3	ADVANCED ROBOTICS	A	3	0	4	4	6	11	DMR
407	ROBOTICS & AUTOMATION	22RAN3304P	PEC-3	ADVANCED ROBOTICS	P	3	0	4	4	6	11	DMR
408	ROBOTICS & AUTOMATION	22RAN3405M	PEC-4	ARTIFICIAL INTELLIBINCE FOR ROBOTICS	M	3	0	0	0	3	3	SM
409	ROBOTICS & AUTOMATION	22RAN3405MA	PEC-4	ARTIFICIAL INTELLIBINCE FOR ROBOTICS	M	3	0	0	0	3	3	SM
410	ROBOTICS & AUTOMATION	22RAN3406M	PEC-4	HUMAN MACHINE INTERFACE & BRAIN MACHINE INTERFACE	M	3	0	0	0	3	3	AMRB
411	ROBOTICS & AUTOMATION	22RAN3507	PEC-5	COMPUTER VISION & APPLICATIONS	R	2	0	2	0	3	4	AMRB
412	SMART GRID TECHNOLOGY	22SGT3101R	PEC-1	DISTRIBUTED ENERGY RESOURCES AND SMART GRIDS	R	2	0	2	4	4	8	PGTD OR EPE OR E
413	SMART GRID TECHNOLOGY	22SGT3101A	PEC-1	DISTRIBUTED ENERGY RESOURCES AND SMART GRIDS	A	3	0	4	4	6	11	PGTD OR EPE OR E

Sl No	SPECIALIZATION	Course Code	Elective No	Course Title	Mode	L	T	P	S	Cr	CH	PRE-REQUISITE
414	SMART GRID TECHNOLOGY	22SGT3101P	PEC-1	DISTRIBUTED ENERGY RESOURCES AND SMART GRIDS	P	3	0	4	4	6	11	(PGTD OR EPE OR E
415	SMART GRID TECHNOLOGY	22SGT3202	PEC-2	DISTRIBUTION SYSTEM PRACTICES	R	2	0	2	0	3	4	(PGTD OR EPE OR E
416	SMART GRID TECHNOLOGY	22SGT3203	PEC-2	MICROGRID DYNAMICS AND CONTROL	R	2	0	2	0	3	4	(PGTD OR EPE OR E
417	SMART GRID TECHNOLOGY	22SGT3304R	PEC-3	ENERGY MANAGEMENT SYSTEMS AND SCADA	R	2	0	2	4	4	8	(PGTD OR EPE OR E
418	SMART GRID TECHNOLOGY	22SGT3304A	PEC-3	ENERGY MANAGEMENT SYSTEMS AND SCADA	A	3	0	4	4	6	11	(PGTD OR EPE OR E
419	SMART GRID TECHNOLOGY	22SGT3304P	PEC-3	ENERGY MANAGEMENT SYSTEMS AND SCADA	P	3	0	4	4	6	11	(PGTD OR EPE OR E
420	SMART GRID TECHNOLOGY	22SGT3405M	PEC-4	SMART GRID COMMUNICATION AND CYBERSECURITY	M	3	0	0	0	3	3	(PGTD OR EPE OR E
421	SMART GRID TECHNOLOGY	22SGT3406M	PEC-4	SMART METERS AND SMART CITIES	M	3	0	0	0	3	3	(PGTD OR EPE OR E
422	SMART GRID TECHNOLOGY	22SGT3507	PEC-5	INTERNET OF THINGS AND SMART GRID ANALYTICS	R	2	0	2	0	3	4	(PGTD OR EPE OR E
423	SMART GRID TECHNOLOGY	22SGT3508	PEC-5	SMART GRID PROTECTION	R	2	0	2	0	3	4	(PGTD OR EPE OR E
424	SMART MANUFACTURING	22SMF3101R	PEC-1	MACHINE TO MACHINE COMMUNICATION	R	2	0	2	4	4	8	MP
425	SMART MANUFACTURING	22SMF3101A	PEC-1	MACHINE TO MACHINE COMMUNICATION	A	3	0	4	4	6	11	MP
426	SMART MANUFACTURING	22SMF3101P	PEC-1	MACHINE TO MACHINE COMMUNICATION	P	3	0	4	4	6	11	MP
427	SMART MANUFACTURING	22SMF3202	PEC-2	ADVANCED MATERIALS MANUFACTURING & TESTING	R	3	0	0	0	3	3	MP
428	SMART MANUFACTURING	22SMF3203	PEC-2	MODERN MANUFACTURING PROCESSES	R	3	0	0	0	3	3	MP
429	SMART MANUFACTURING	22SMF3304R	PEC-3	SUSTAINABLE DESIGN & SOCIAL INNOVATION IN SMART MANUFACTURING	R	2	0	2	4	4	8	MP
430	SMART MANUFACTURING	22SMF3304A	PEC-3	SUSTAINABLE DESIGN & SOCIAL INNOVATION IN SMART MANUFACTURING	R	3	0	4	4	6	11	MP
431	SMART MANUFACTURING	22SMF3304P	PEC-3	SUSTAINABLE DESIGN & SOCIAL INNOVATION IN SMART MANUFACTURING	R	3	0	4	4	6	11	MP
432	SMART MANUFACTURING	22SMF3405M	PEC-4	ROBOTICS & INDUSTRIAL AUTOMATION	M	3	0	0	0	3	3	MP
433	SMART MANUFACTURING	22SMF3406M	PEC-4	MECHANICAL MEASUREMENTS AND METROLOGY	M	3	0	0	0	3	3	MP
434	SMART MANUFACTURING	22SMF3507	PEC-5	REVERSE ENGINEERING & RAPID PROTOTYPING	R	3	0	0	0	3	3	MP
435	SMART MANUFACTURING	22SMF3508	PEC-5	FLEXIBLE MANUFACTURING SYSTEMS	R	2	0	2	0	3	4	MP
436	SOCIAL & DIGITAL MEDIA ANALYTICS	22SDM3101R	PEC-1	SENTIMENT ANALYSIS	R	2	0	2	4	4	8	DBMS

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437	SOCIAL & DIGITAL MEDIA ANALYTICS	22SDM3101A	PEC-1	SENTIMENT ANALYSIS	A	3	0	4	4	6	11	DBMS
438	SOCIAL & DIGITAL MEDIA ANALYTICS	22SDM3101P	PEC-1	SENTIMENT ANALYSIS	P	3	0	4	4	6	11	DBMS
439	SOCIAL & DIGITAL MEDIA ANALYTICS	22SDM3202	PEC-2	OPINION MINING & RECOMMENDER SYSTEMS	R	2	0	2	0	3	4	DBMS
440	SOCIAL & DIGITAL MEDIA ANALYTICS	22SDM3203	PEC-2	META SOCIAL MEDIA ANALYTICS	R	2	0	2	0	3	4	DBMS
441	SOCIAL & DIGITAL MEDIA ANALYTICS	22SDM3304R	PEC-3	SOCIAL MEDIA MARKETING ANALYTICS	R	2	0	2	4	4	8	DBMS
442	SOCIAL & DIGITAL MEDIA ANALYTICS	22SDM3304A	PEC-3	SOCIAL MEDIA MARKETING ANALYTICS	A	3	0	4	4	6	11	DBMS
443	SOCIAL & DIGITAL MEDIA ANALYTICS	22SDM3304P	PEC-3	SOCIAL MEDIA MARKETING ANALYTICS	P	3	0	4	4	6	11	DBMS
444	SOCIAL & DIGITAL MEDIA ANALYTICS	22SDM3405M	PEC-4	DIGITAL MEDIA ANALYTICS	M	3	0	0	0	3	3	DBMS
445	SOCIAL & DIGITAL MEDIA ANALYTICS	22SDM3406M	PEC-4	ETHICAL SOCIAL MEDIA	M	3	0	0	0	3	3	DBMS
446	SOCIAL & DIGITAL MEDIA ANALYTICS	22SDM3507	PEC-5	INTELLIGENT SOCIAL MEDIA MONITORING SYSTEMS	R	2	0	2	0	3	4	DBMS
447	SOCIAL & DIGITAL MEDIA ANALYTICS	22SDM3508	PEC-5	SEARCH ENGINE OPTIMIZATION	R	2	0	2	0	3	4	DBMS
448	SOFTWARE MODELLING & DEVOPS	22SMD3101R	PEC-1	SOFTWARE VERIFICATION & VALIDATION	R	2	0	2	4	4	8	ASE
449	SOFTWARE MODELLING & DEVOPS	22SMD3101A	PEC-1	SOFTWARE VERIFICATION & VALIDATION	A	3	0	4	4	6	11	ASE
450	SOFTWARE MODELLING & DEVOPS	22SMD3101P	PEC-1	SOFTWARE VERIFICATION & VALIDATION	P	3	0	4	4	6	11	ASE
451	SOFTWARE MODELLING & DEVOPS	22SMD3202	PEC-2	DESIGN PATTERNS & CLEAN CODING TECHNIQUES	R	2	0	2	0	3	4	CTOD
452	SOFTWARE MODELLING & DEVOPS	22SMD3303R	PEC-3	CONTINUOUS DELIVERY & DEVOPS	R	2	0	2	4	4	8	ASE
453	SOFTWARE MODELLING & DEVOPS	22SMD3303A	PEC-3	CONTINUOUS DELIVERY & DEVOPS	A	3	0	4	4	6	11	ASE
454	SOFTWARE MODELLING & DEVOPS	22SMD3303P	PEC-3	CONTINUOUS DELIVERY & DEVOPS	P	3	0	4	4	6	11	ASE
455	SOFTWARE MODELLING & DEVOPS	22SMD3404M	PEC-4	SOFTWARE PROJECT MANAGEMENT	M	3	0	0	0	3	3	ASE
456	SOFTWARE MODELLING & DEVOPS	22SMD3405M	PEC-4	SOFTWARE ARCHITECTURE & DESIGN	M	3	0	0	0	3	3	ASE
457	SOFTWARE MODELLING & DEVOPS	22SMD3506	PEC-5	SOFTWARE RELIABILITY	R	2	0	2	0	3	4	ASE
458	SOFTWARE MODELLING & DEVOPS	22SMD3507	PEC-5	CROSS-PLATFORM USER INTERFACE DESIGN	R	2	0	2	0	3	4	CTOD
459	STRUCTURAL ENGINEERING	22STE3101R	PEC-1	ADVANCED DESIGN OF REINFORCED CONCRETE STRUCTURES	R	2	0	2	4	4	8	DRCS

Sl No	SPECIALIZATION	Course Code	Elective No	Course Title	Mode	L	T	P	S	Cr	CH	PRE-REQUISITE
460	STRUCTURAL ENGINEERING	22STE3101A	PEC-1	ADVANCED DESIGN OF REINFORCED CONCRETE STRUCTURES	A	3	0	4	4	6	11	DRCS
461	STRUCTURAL ENGINEERING	22STE3101P	PEC-1	ADVANCED DESIGN OF REINFORCED CONCRETE STRUCTURES	P	3	0	4	4	6	11	DRCS
462	STRUCTURAL ENGINEERING	22STE3202	PEC-2	ADVANCED STRUCTURAL ANALYSIS	R	2	0	2	0	3	4	SA
463	STRUCTURAL ENGINEERING	22STE3203	PEC-2	ADVANCED DESIGN OF STEEL STRUCTURE	R	2	0	2	0	3	4	DSS
464	STRUCTURAL ENGINEERING	22STE3304R	PEC-3	BRIDGE ENGINEERING	R	2	0	2	4	4	8	DRCS
465	STRUCTURAL ENGINEERING	22STE3304A	PEC-3	BRIDGE ENGINEERING	A	3	0	4	4	6	11	DRCS
466	STRUCTURAL ENGINEERING	22STE3304P	PEC-3	BRIDGE ENGINEERING	P	3	0	4	4	6	11	DRCS
467	STRUCTURAL ENGINEERING	22STE3405M	PEC-4	PRESTRESSED CONCRETE	M	3	0	0	0	3	3	CT
468	STRUCTURAL ENGINEERING	22STE3406M	PEC-4	PRECAST AND PREFABRICATED STRUCTURES	M	3	0	0	0	3	3	CT
469	STRUCTURAL ENGINEERING	22STE3507	PEC-5	PRE ENGINEERING STRUCTURES	R	2	0	2	0	3	4	CT
470	STRUCTURAL ENGINEERING	22STE3508	PEC-5	ADVANCED CONCRETE TECHNOLOGY	R	2	0	2	0	3	4	CT
471	VLSI	22VLS3101R	PEC-1	ANALOG VLSI DESIGN	R	2	0	2	4	4	8	DVD
472	VLSI	22VLS3101A	PEC-1	ANALOG VLSI DESIGN	A	3	0	4	4	6	11	DVD
473	VLSI	22VLS3101P	PEC-1	ANALOG VLSI DESIGN	P	3	0	4	4	6	11	DVD
474	VLSI	22VLS3202	PEC-2	TESTING AND VERIFICATION OF VLSI CIRCUITS	R	2	0	2	0	3	4	DVD
475	VLSI	22VLS3303R	PEC-3	VLSI PHYSICAL DESIGN AUTOMATION	R	2	0	2	4	4	8	AVD
476	VLSI	22VLS3303A	PEC-3	VLSI PHYSICAL DESIGN AUTOMATION	A	3	0	4	4	6	11	AVD
477	VLSI	22VLS3303P	PEC-3	VLSI PHYSICAL DESIGN AUTOMATION	P	3	0	4	4	6	11	AVD
478	VLSI	22VLS3404M	PEC-4	SYSTEM-ON-CHIP	M	3	0	0	0	3	3	AVD
479	VLSI	22VLS3505	PEC-5	MIXED SIGNAL IC DESIGN	R	2	0	2	0	3	4	AVD
480	WATER RESOURCE & ENVIRONMENTAL ENGINEERING	22WRE3101R	PEC-1	RIVER ENGINEERING	R	2	0	2	4	4	8	WRE
481	WATER RESOURCE & ENVIRONMENTAL ENGINEERING	22WRE3101A	PEC-1	RIVER ENGINEERING	A	3	0	4	4	6	11	WRE
482	WATER RESOURCE & ENVIRONMENTAL ENGINEERING	22WRE3101P	PEC-1	RIVER ENGINEERING	P	3	0	4	4	6	11	WRE

Sl No	SPECIALIZATION	Course Code	Elective No	Course Title	Mode	L	T	P	S	Cr	CH	PRE-REQUISITE
483	WATER RESOURCE & ENVIRONMENTAL ENGINEERING	22WRE3202	PEC-2	SOLID WASTE MANAGEMENT AND LANDFILLS	R	2	0	2	0	3	4	EE
484	WATER RESOURCE & ENVIRONMENTAL ENGINEERING	22WRE3203	PEC-2	DESIGN OF HYDRAULIC STRUCTURES	R	2	0	2	0	3	4	HM&H
485	WATER RESOURCE & ENVIRONMENTAL ENGINEERING	22WRE3304R	PEC-3	WATER RESOURCES FIELD METHODS	R	2	0	2	4	4	8	WRE
486	WATER RESOURCE & ENVIRONMENTAL ENGINEERING	22WRE3304A	PEC-3	WATER RESOURCES FIELD METHODS	A	3	0	4	4	6	11	WRE
487	WATER RESOURCE & ENVIRONMENTAL ENGINEERING	22WRE3304P	PEC-3	WATER RESOURCES FIELD METHODS	P	3	0	4	4	6	11	WRE
488	WATER RESOURCE & ENVIRONMENTAL ENGINEERING	22WRE3405M	PEC-4	URBAN WATER HYDROLOGY AND HYDRAULICS	M	3	0	0	0	3	3	WRE
489	WATER RESOURCE & ENVIRONMENTAL ENGINEERING	22WRE3406M	PEC-4	ENVIRONMENTAL IMPACT ASSESSMENT AND LIFE CYCLE ANALYSES	M	3	0	0	0	3	3	EE
490	WATER RESOURCE & ENVIRONMENTAL ENGINEERING	22WRE3507	PEC-5	PHYSICO-CHEMICAL PROCESSES FOR WATER AND WASTEWATER TREATMENT	R	2	0	2	0	3	4	EE
491	WATER RESOURCE & ENVIRONMENTAL ENGINEERING	22WRE3508	PEC-5	SUSTAINABLE ENGINEERING AND TECHNOLOGY	R	2	0	2	0	3	4	FM&H

LIST OF SKILL DEVELOPMENT COURSES (SDC) - B.TECH										
Sl No	**Course Code**	**Course Title**	**Mode**	**L**	**T**	**P**	**S**	**Cr**	**CH**	**Pre-Requisite**
1	22SDAD01A	APPLICATION DEVELOPMENT USING JAVA	A	0	0	6	4	4	10	OOP
2	22SDAD01P	APPLICATION DEVELOPMENT USING JAVA	P	0	0	6	4	4	10	OOP
3	22SDAD01R	APPLICATION DEVELOPMENT USING JAVA	R	0	0	2	4	2	6	OOP
4	22SDAD03A	TENSOR FLOW DEVELOPER	A	0	0	6	4	4	10	OOP
5	22SDAD03P	TENSOR FLOW DEVELOPER	P	0	0	6	4	4	10	OOP
6	22SDAD03R	TENSOR FLOW DEVELOPER	R	0	0	2	4	2	6	OOP
7	22SDAD05A	MLOPS	A	0	0	6	4	4	10	OOP
8	22SDAD05P	MLOPS	P	0	0	6	4	4	10	OOP
9	22SDAD05R	MLOPS	R	0	0	2	4	2	6	OOP
10	22SDAD06A	ANALYSIS OF DIGITAL MARKETING	A	0	0	6	4	4	10	ML
11	22SDAD06P	ANALYSIS OF DIGITAL MARKETING	P	0	0	6	4	4	10	ML
12	22SDAD06R	ANALYSIS OF DIGITAL MARKETING	R	0	0	2	4	2	6	ML
13	22SDAD07A	BIG DATA ANALYTICS FOR SMART MANUFACTURING	A	0	0	6	4	4	10	BDSS
14	22SDAD07P	BIG DATA ANALYTICS FOR SMART MANUFACTURING	P	0	0	6	4	4	10	BDSS
15	22SDAD07R	BIG DATA ANALYTICS FOR SMART MANUFACTURING	R	0	0	2	4	2	6	BDSS
16	22SDAD08A	EMERGING BLOCKCHAIN MODELS FOR DIGITAL CURRENCIES	A	0	0	6	4	4	10	DWM
17	22SDAD08P	EMERGING BLOCKCHAIN MODELS FOR DIGITAL CURRENCIES	P	0	0	6	4	4	10	DWM
18	22SDAD08R	EMERGING BLOCKCHAIN MODELS FOR DIGITAL CURRENCIES	R	0	0	2	4	2	6	DWM
19	22SDAD09A	AUTONOMOUS VEHICLE SYSTEMS	A	0	0	6	4	4	10	ADS
20	22SDAD09P	AUTONOMOUS VEHICLE SYSTEMS	P	0	0	6	4	4	10	ADS
21	22SDAD09R	AUTONOMOUS VEHICLE SYSTEMS	R	0	0	2	4	2	6	ADS
22	22SDBT01A	MEDICAL LAB TECHNOLOGY	A	0	0	6	4	4	10	CB
23	22SDBT01P	MEDICAL LAB TECHNOLOGY	P	0	0	6	4	4	10	CB
24	22SDBT01R	MEDICAL LAB TECHNOLOGY	R	0	0	2	4	2	6	CB
25	22SDBT02A	ANALYTICAL AND OPTICAL INSTRUMENTATION	A	0	0	6	4	4	10	BCT
26	22SDBT02P	ANALYTICAL AND OPTICAL INSTRUMENTATION	P	0	0	6	4	4	10	BCT
27	22SDBT02R	ANALYTICAL AND OPTICAL INSTRUMENTATION	R	0	0	2	4	2	6	BCT
28	22SDBT03A	BIO-INSTRUMENTATION	A	0	0	6	4	4	10	BCT
29	22SDBT03P	BIO-INSTRUMENTATION	P	0	0	6	4	4	10	BCT
30	22SDBT03R	BIO-INSTRUMENTATION	R	0	0	2	4	2	6	BCT
31	22SDBT04A	PROCESS ENGINEERING TOOLS	A	0	0	6	4	4	10	BCT
32	22SDBT04P	PROCESS ENGINEERING TOOLS	P	0	0	6	4	4	10	BCT
33	22SDBT04R	PROCESS ENGINEERING TOOLS	R	0	0	2	4	2	6	BCT
34	22SDBT05A	COMPUTER AIDED DRUG DESIGN	A	0	0	6	4	4	10	CB

35	22SDBT05P	COMPUTER AIDED DRUG DESIGN	P	0	0	6	4	4	10	CB
36	22SDBT05R	COMPUTER AIDED DRUG DESIGN	R	0	0	2	4	2	6	CB
37	22SDBT06A	GENOMICS DATA SCIENCE & CLUSTERING	A	0	0	6	4	4	10	CB
38	22SDBT06P	GENOMICS DATA SCIENCE & CLUSTERING	P	0	0	6	4	4	10	CB
39	22SDBT06R	GENOMICS DATA SCIENCE & CLUSTERING	R	0	0	2	4	2	6	CB
40	22SDBT07A	ASPECTS OF BIOCHEMICAL ENGINEERING	A	0	0	6	4	4	10	MB
41	22SDBT07p	ASPECTS OF BIOCHEMICAL ENGINEERING	P	0	0	6	4	4	10	MB
42	22SDBT07R	ASPECTS OF BIOCHEMICAL ENGINEERING	R	0	0	2	4	2	6	MB
43	22SDBT08A	DRUG DESIGN: PRINCIPLES AND ENGINEERING	A	0	0	6	4	4	10	BI
44	22SDBT08P	DRUG DESIGN: PRINCIPLES AND ENGINEERING	P	0	0	6	4	4	10	BI
45	22SDBT08R	DRUG DESIGN: PRINCIPLES AND ENGINEERING	R	0	0	2	4	2	6	BI
46	22SDBT09A	CELL CULTURE TECHNOLOGIES	A	0	0	6	4	4	10	PABT
47	22SDBT09P	CELL CULTURE TECHNOLOGIES	P	0	0	6	4	4	10	PABT
48	22SDBT09R	CELL CULTURE TECHNOLOGIES	R	0	0	2	4	2	6	PABT
49	22SDBT10A	MASS SPECTROMETRY BASED PROTEOMICS	A	0	0	6	4	4	10	BAT
50	22SDBT10P	MASS SPECTROMETRY BASED PROTEOMICS	P	0	0	6	4	4	10	BAT
51	22SDBT10R	MASS SPECTROMETRY BASED PROTEOMICS	R	0	0	2	4	2	6	BAT
52	22SDBT11A	ANIMAL PHYSIOLOGY	A	0	0	6	4	4	10	MB
53	22SDBT11P	ANIMAL PHYSIOLOGY	P	0	0	6	4	4	10	MB
54	22SDBT11R	ANIMAL PHYSIOLOGY	R	0	0	2	4	2	6	MB
55	22SDCE02A	BUILDING INFORMATION MODELLING	A	0	0	6	4	4	10	CPM
56	22SDCE02P	BUILDING INFORMATION MODELLING	P	0	0	6	4	4	10	CPM
57	22SDCE02R	BUILDING INFORMATION MODELLING	R	0	0	2	4	2	6	CPM
58	22SDCE03A	ANALYSIS & DESIGN OF MULTI-STORIED STRUCTURES USING ETABS	A	0	0	6	4	4	10	AUTOCAD
59	22SDCE03P	ANALYSIS & DESIGN OF MULTI-STORIED STRUCTURES USING ETABS	P	0	0	6	4	4	10	AUTOCAD
60	22SDCE03R	ANALYSIS & DESIGN OF MULTI-STORIED STRUCTURES USING ETABS	R	0	0	2	4	2	6	AUTOCAD
61	22SDCE04A	PLANNING AND SCHEDULING OF RESIDENTIAL BUILDING USING PRIMAVERA SOFTWARE	A	0	0	6	4	4	10	CPM
62	22SDCE04P	PLANNING AND SCHEDULING OF RESIDENTIAL BUILDING USING PRIMAVERA SOFTWARE	P	0	0	6	4	4	10	CPM
63	22SDCE04R	PLANNING AND SCHEDULING OF RESIDENTIAL BUILDING USING PRIMAVERA SOFTWARE	R	0	0	2	4	2	6	CPM
64	22SDCE05A	DESIGN OF THE PAVEMENT BY USING MX ROADS	A	0	0	6	4	4	10	TE
65	22SDCE05P	DESIGN OF THE PAVEMENT BY USING MX ROADS	P	0	0	6	4	4	10	TE
66	22SDCE05R	DESIGN OF THE PAVEMENT BY USING MX ROADS	R	0	0	2	4	2	6	TE
67	22SDCE06A	DESIGN & ANALYSIS OF DIFFERENT STRUCTURAL COMPONENTS BY USING SAFE AND EXTRACTIVE BAR BENDING SCHEDULE	A	0	0	6	4	4	10	DERS
68	22SDCE06P	DESIGN & ANALYSIS OF DIFFERENT STRUCTURAL COMPONENTS BY USING SAFE AND EXTRACTIVE BAR BENDING SCHEDULE	P	0	0	6	4	4	10	DERS
69	22SDCE06R	DESIGN & ANALYSIS OF DIFFERENT STRUCTURAL COMPONENTS BY USING SAFE AND EXTRACTIVE BAR BENDING SCHEDULE	R	0	0	2	4	2	6	DERS
70	22SDCE07A	ARC-GIS (PRO)	A	0	0	6	4	4	10	RS&GIS

71	22SDCE07P	ARC-GIS (PRO)	P	0	0	6	4	4	10	RS&GIS
72	22SDCE07R	ARC-GIS (PRO)	R	0	0	2	4	2	6	RS&GIS
73	22SDCI01A	PYTHON FULL STACK DEVELOPMENT WITH DJANGO	A	0	0	6	4	4	10	CTOD
74	22SDCI01P	PYTHON FULL STACK DEVELOPMENT WITH DJANGO	P	0	0	6	4	4	10	CTOD
75	22SDCI01R	PYTHON FULL STACK DEVELOPMENT WITH DJANGO	R	0	0	2	4	2	6	CTOD
76	22SDCI04A	ADVANCED ANDROID MOBILE APPLICATION WITH CLOUD-BASED WEB SERVICES	A	0	0	6	4	4	10	CTOD
77	22SDCI04P	ADVANCED ANDROID MOBILE APPLICATION WITH CLOUD-BASED WEB SERVICES	P	0	0	6	4	4	10	CTOD
78	22SDCI04R	ADVANCED ANDROID MOBILE APPLICATION WITH CLOUD-BASED WEB SERVICES	R	0	0	2	4	2	6	CTOD
79	22SDCI05A	CLOUD DEVOPS	A	0	0	6	4	4	10	ASE
80	22SDCI05P	CLOUD DEVOPS	P	0	0	6	4	4	10	ASE
81	22SDCI05R	CLOUD DEVOPS	R	0	0	2	4	2	6	ASE
82	22SDCS01A	MERN STACK WEB DEVELOPMENT	A	0	0	6	4	4	10	CTOD
83	22SDCS01P	MERN STACK WEB DEVELOPMENT	P	0	0	6	4	4	10	CTOD
84	22SDCS01R	MERN STACK WEB DEVELOPMENT	R	0	0	2	4	2	6	CTOD
85	22SDCS03A	JAVA FULL STACK DEVELOPMENT + MICROSERVICES	A	0	0	6	4	4	10	CTOD
86	22SDCS03P	JAVA FULL STACK DEVELOPMENT + MICROSERVICES	P	0	0	6	4	4	10	CTOD
87	22SDCS03R	JAVA FULL STACK DEVELOPMENT + MICROSERVICES	R	0	0	2	4	2	6	CTOD
88	22SDCS04A	CLOUD BASED SOLUTIONS ARCHITECT	A	0	0	6	4	4	10	OS
89	22SDCS04P	CLOUD BASED SOLUTIONS ARCHITECT	P	0	0	6	4	4	10	OS
90	22SDCS04R	CLOUD BASED SOLUTIONS ARCHITECT	R	0	0	2	4	2	6	OS
91	22SDCS05A	CLOUD BASED SECURITY SPECIALITY	A	0	0	6	4	4	10	CNS
92	22SDCS05P	CLOUD BASED SECURITY SPECIALITY	P	0	0	6	4	4	10	CNS
93	22SDCS05R	CLOUD BASED SECURITY SPECIALITY	R	0	0	2	4	2	6	CNS
94	22SDCS06A	CERTIFIED GAME DEVELOPER	A	0	0	6	4	4	10	PGD
95	22SDCS06P	CERTIFIED GAME DEVELOPER	P	0	0	6	4	4	10	PGD
96	22SDCS06R	CERTIFIED GAME DEVELOPER	R	0	0	2	4	2	6	PGD
97	22SDCS07A	CLOUD BASED AI/ML SPECIALITY	A	0	0	6	4	4	10	DDAIS
98	22SDCS07P	CLOUD BASED AI/ML SPECIALITY	P	0	0	6	4	4	10	DDAIS
99	22SDCS07R	CLOUD BASED AI/ML SPECIALITY	R	0	0	2	4	2	6	DDAIS
100	22SDCS08A	CLOUD BASED DATA ANALYTICS SPECIALITY	A	0	0	6	4	4	10	DS
101	22SDCS08P	CLOUD BASED DATA ANALYTICS SPECIALITY	P	0	0	6	4	4	10	DS
102	22SDCS08R	CLOUD BASED DATA ANALYTICS SPECIALITY	R	0	0	2	4	2	6	DS
103	22SDCS09A	CLOUD BASED IOT DEVELOPER	A	0	0	6	4	4	10	FIOT
104	22SDCS09P	CLOUD BASED IOT DEVELOPER	P	0	0	6	4	4	10	FIOT
105	22SDCS09R	CLOUD BASED IOT DEVELOPER	R	0	0	2	4	2	6	FIOT
106	22SDCS10A	IT VENTURE MANAGEMENT	A	0	0	6	4	4	10	DTI

107	22SDCS10P	IT VENTURE MANAGEMENT	P	0	0	6	4	4	10	DTI
108	22SDCS10R	IT VENTURE MANAGEMENT	R	0	0	2	4	2	6	DTI
109	22SDEC01A	ELECTRONIC SYSTEM DESIGN	A	0	0	6	4	4	10	FIOT
110	22SDEC01P	ELECTRONIC SYSTEM DESIGN	P	0	0	6	4	4	10	FIOT
111	22SDEC01R	ELECTRONIC SYSTEM DESIGN	R	0	0	2	4	2	6	FIOT
112	22SDEC02A	ELECTRONIC SYSTEM DESIGN AUTOMATION	A	0	0	6	4	4	10	ESD
113	22SDEC02P	ELECTRONIC SYSTEM DESIGN AUTOMATION	P	0	0	6	4	4	10	ESD
114	22SDEC02R	ELECTRONIC SYSTEM DESIGN AUTOMATION	R	0	0	2	4	2	6	ESD
115	22SDEC03A	BIOSENSOR SYSTEM DESIGN	A	0	0	6	4	4	10	ESDA
116	22SDEC03P	BIOSENSOR SYSTEM DESIGN	P	0	0	6	4	4	10	ESDA
117	22SDEC03R	BIOSENSOR SYSTEM DESIGN	R	0	0	2	4	2	6	ESDA
118	22SDEC04A	DESIGN OF NETWORKS USING NS-3	A	0	0	6	4	4	10	ESDA
119	22SDEC04P	DESIGN OF NETWORKS USING NS-3	P	0	0	6	4	4	10	ESDA
120	22SDEC04R	DESIGN OF NETWORKS USING NS-3	R	0	0	2	4	2	6	ESDA
121	22SDEC05A	4G - LTE COMMUNICATION SYSTEMS	A	0	0	6	4	4	10	ESDA
122	22SDEC05P	4G - LTE COMMUNICATION SYSTEMS	P	0	0	6	4	4	10	ESDA
123	22SDEC05R	4G - LTE COMMUNICATION SYSTEMS	R	0	0	2	4	2	6	ESDA
124	22SDEC06A	EMBEDDED DESIGN	A	0	0	6	4	4	10	ESDA
125	22SDEC06P	EMBEDDED DESIGN	P	0	0	6	4	4	10	ESDA
126	22SDEC06R	EMBEDDED DESIGN	R	0	0	2	4	2	6	ESDA
127	22SDEC07A	DEEP LEARNING WITH TENSORFLOW FRAMEWORK	A	0	0	6	4	4	10	ESDA
128	22SDEC07P	DEEP LEARNING WITH TENSORFLOW FRAMEWORK	P	0	0	6	4	4	10	ESDA
129	22SDEC07R	DEEP LEARNING WITH TENSORFLOW FRAMEWORK	R	0	0	2	4	2	6	ESDA
130	22SDEC08A	PLANAR ANTENNA DESIGN	A	0	0	6	4	4	10	ESDA
131	22SDEC08P	PLANAR ANTENNA DESIGN	P	0	0	6	4	4	10	ESDA
132	22SDEC08R	PLANAR ANTENNA DESIGN	R	0	0	2	4	2	6	ESDA
133	22SDEC09A	ROBOTICS AND AUTOMATION WITH WEBOTS	A	0	0	6	4	4	10	ESDA
134	22SDEC09P	ROBOTICS AND AUTOMATION WITH WEBOTS	P	0	0	6	4	4	10	ESDA
135	22SDEC09R	ROBOTICS AND AUTOMATION WITH WEBOTS	R	0	0	2	4	2	6	ESDA
136	22SDEC10A	INTEGRATED SYSTEM DESIGN AUTOMATION	A	0	0	6	4	4	10	ESDA
137	22SDEC10P	INTEGRATED SYSTEM DESIGN AUTOMATION	P	0	0	6	4	4	10	ESDA
138	22SDEC10R	INTEGRATED SYSTEM DESIGN AUTOMATION	R	0	0	2	4	2	6	ESDA
139	22SDEC11A	BIOMEDICAL SYSTEM INTERFACING AND SIGNAL ANALYSIS	A	0	0	6	4	4	10	ESDA
140	22SDEC11P	BIOMEDICAL SYSTEM INTERFACING AND SIGNAL ANALYSIS	P	0	0	6	4	4	10	ESDA
141	22SDEC11R	BIOMEDICAL SYSTEM INTERFACING AND SIGNAL ANALYSIS	R	0	0	2	4	2	6	ESDA
142	22SDEC12A	NETWORK PROGRAMMABILITY AND AUTOMATION	A	0	0	6	4	4	10	ESDA

143	22SDEC12P	NETWORK PROGRAMMABILITY AND AUTOMATION	P	0	0	6	4	4	10	ESDA
144	22SDEC12R	NETWORK PROGRAMMABILITY AND AUTOMATION	R	0	0	2	4	2	6	ESDA
145	22SDEC13A	5G PRIVATE AND INDUSTRIAL AUTOMATION NETWORKS	A	0	0	6	4	4	10	ESDA
146	22SDEC13P	5G PRIVATE AND INDUSTRIAL AUTOMATION NETWORKS	P	0	0	6	4	4	10	ESDA
147	22SDEC13R	5G PRIVATE AND INDUSTRIAL AUTOMATION NETWORKS	R	0	0	2	4	2	6	ESDA
148	22SDEC14A	EMBEDDED PROTOTYPE	A	0	0	6	4	4	10	ESDA
149	22SDEC14P	EMBEDDED PROTOTYPE	P	0	0	6	4	4	10	ESDA
150	22SDEC14R	EMBEDDED PROTOTYPE	R	0	0	2	4	2	6	ESDA
151	22SDEC15A	NATURAL LANGUAGE PROCESSING USING TENSOR FLOW	A	0	0	6	4	4	10	ESDA
152	22SDEC15P	NATURAL LANGUAGE PROCESSING USING TENSOR FLOW	P	0	0	6	4	4	10	ESDA
153	22SDEC15R	NATURAL LANGUAGE PROCESSING USING TENSOR FLOW	R	0	0	2	4	2	6	ESDA
154	22SDEC16A	ADVANCED RADIATING SYSTEM MODELING	A	0	0	6	4	4	10	ESDA
155	22SDEC16P	ADVANCED RADIATING SYSTEM MODELING	P	0	0	6	4	4	10	ESDA
156	22SDEC16R	ADVANCED RADIATING SYSTEM MODELING	R	0	0	2	4	2	6	ESDA
157	22SDEC17A	ROBOT DESIGN AND ANALYSIS	A	0	0	6	4	4	10	ESDA
158	22SDEC17P	ROBOT DESIGN AND ANALYSIS	P	0	0	6	4	4	10	ESDA
159	22SDEC17R	ROBOT DESIGN AND ANALYSIS	R	0	0	2	4	2	6	ESDA
160	22SDEC18A	VLSI SUBMICRON DESIGN AND VERIFICATION	A	0	0	6	4	4	10	ESDA
161	22SDEC18P	VLSI SUBMICRON DESIGN AND VERIFICATION	P	0	0	6	4	4	10	ESDA
162	22SDEC18R	VLSI SUBMICRON DESIGN AND VERIFICATION	R	0	0	2	4	2	6	ESDA
163	22SDEE01A	APPLICATION DEVELOPMENT USING PYTHON	A	0	0	6	4	4	10	NIL
164	22SDEE01P	APPLICATION DEVELOPMENT USING PYTHON	P	0	0	6	4	4	10	NIL
165	22SDEE01R	APPLICATION DEVELOPMENT USING PYTHON	R	0	0	2	4	2	6	NIL
166	22SDEE02A	EMBEDDED SYSTEM DESIGN WITH ARM	A	0	0	6	4	4	10	DDC
167	22SDEE02P	EMBEDDED SYSTEM DESIGN WITH ARM	P	0	0	6	4	4	10	DDC
168	22SDEE02R	EMBEDDED SYSTEM DESIGN WITH ARM	R	0	0	2	4	2	6	DDC
169	22SDEE03A	IOT INTERFACE DESIGN	A	0	0	6	4	4	10	FITS
170	22SDEE03P	IOT INTERFACE DESIGN	P	0	0	6	4	4	10	FITS
171	22SDEE03R	IOT INTERFACE DESIGN	R	0	0	2	4	2	6	FITS
172	22SDEE04A	AI & ML FOR SMART GRIDS	A	0	0	6	4	4	10	EPGTD OR ET
173	22SDEE04P	AI & ML FOR SMART GRIDS	P	0	0	6	4	4	10	EPGTD OR ET
174	22SDEE04R	AI & ML FOR SMART GRIDS	R	0	0	2	4	2	6	EPGTD OR ET
175	22SDEE05R	MODELING AND SIMULATION OF GREEN ENERGY SYSTEMS	R	0	0	2	4	2	6	EPGTD OR ET
176	22SDEE05A	MODELING AND SIMULATION OF GREEN ENERGY SYSTEMS	A	0	0	6	4	4	10	EPGTD OR ET
177	22SDEE05P	MODELING AND SIMULATION OF GREEN ENERGY SYSTEMS	P	0	0	6	4	4	10	EPGTD OR ET
178	22SDEE06R	EVT HARDWARE PROTOTYPING	R	0	0	2	4	2	6	BEEC OR ET

179	22SDEE06A	EVT HARDWARE PROTOTYPING	A	0	0	6	4	4	10	BEEC OR ET
180	22SDEE06P	EVT HARDWARE PROTOTYPING	P	0	0	6	4	4	10	BEEC OR ET
181	22SDEE07R	IA HARDWARE PROTOTYPING	R	0	0	2	4	2	6	EPGTD OR ET OR FITS
182	22SDEE07A	IA HARDWARE PROTOTYPING	A	0	0	6	4	4	10	EPGTD OR ET OR FITS
183	22SDEE07P	IA HARDWARE PROTOTYPING	P	0	0	6	4	4	10	EPGTD OR ET OR FITS
184	22SDIN01A	IOT HARDWARE PROGRAMMING	A	0	0	6	4	4	10	FITS
185	22SDIN01P	IOT HARDWARE PROGRAMMING	P	0	0	6	4	4	10	FITS
186	22SDIN01R	IOT HARDWARE PROGRAMMING	R	0	0	2	4	2	6	FITS
187	22SDIN02A	MOBILE APP DEVELOPMENT USING FLUTTER	A	0	0	6	4	4	10	NIL
188	22SDIN02P	MOBILE APP DEVELOPMENT USING FLUTTER	P	0	0	6	4	4	10	NIL
189	22SDIN02R	MOBILE APP DEVELOPMENT USING FLUTTER	R	0	0	2	4	2	6	NIL
190	22SDIN03A	IOT FULL STACK DEVELOPMENT	A	0	0	6	4	4	10	IOTHP
191	22SDIN03P	IOT FULL STACK DEVELOPMENT	P	0	0	6	4	4	10	IOTHP
192	22SDIN03R	IOT FULL STACK DEVELOPMENT	R	0	0	2	4	2	6	IOTHP
193	22SDIN04A	IOT PRODUCT DEVELOPMENT	A	0	0	6	4	4	10	IOTPA
194	22SDIN04P	IOT PRODUCT DEVELOPMENT	P	0	0	6	4	4	10	IOTPA
195	22SDIN04R	IOT PRODUCT DEVELOPMENT	R	0	0	2	4	2	6	IOTPA
196	22SDIN05A	IOT ANALYTICS FOR THE CLOUD	A	0	0	6	4	4	10	CCIOT
197	22SDIN05P	IOT ANALYTICS FOR THE CLOUD	P	0	0	6	4	4	10	CCIOT
198	22SDIN05R	IOT ANALYTICS FOR THE CLOUD	R	0	0	2	4	2	6	CCIOT
199	22SDIN06A	EMBEDDED AND IOT ROGRAMMING	A	0	0	6	4	4	10	FITS
200	22SDIN06P	EMBEDDED AND IOT ROGRAMMING	P	0	0	6	4	4	10	FITS
201	22SDIN06R	EMBEDDED AND IOT ROGRAMMING	R	0	0	2	4	2	6	FITS
202	22SDME01A	VISUALIZATION & MODELLING FOR ENGINEERING DESIGN	A	0	0	6	4	4	10	EG
203	22SDME01P	VISUALIZATION & MODELLING FOR ENGINEERING DESIGN	P	0	0	6	4	4	10	EG
204	22SDME01R	VISUALIZATION & MODELLING FOR ENGINEERING DESIGN	R	0	0	2	4	2	6	EG
205	22SDME02A	COMPUTER INTEGRATED MANUFACTURING	A	0	0	6	4	4	10	MP
206	22SDME02P	COMPUTER INTEGRATED MANUFACTURING	P	0	0	6	4	4	10	MP
207	22SDME02R	COMPUTER INTEGRATED MANUFACTURING	R	0	0	2	4	2	6	MP
208	22SDME03A	FINITE ELEMENT ANALYSIS	A	0	0	6	4	4	10	SM
209	22SDME03P	FINITE ELEMENT ANALYSIS	P	0	0	6	4	4	10	SM
210	22SDME03R	FINITE ELEMENT ANALYSIS	R	0	0	2	4	2	6	SM
211	22SDME04A	ANALYSIS OF ENERGY SYSTEMS	A	0	0	6	4	4	10	TD
212	22SDME04P	ANALYSIS OF ENERGY SYSTEMS	P	0	0	6	4	4	10	TD
213	22SDME04R	ANALYSIS OF ENERGY SYSTEMS	R	0	0	2	4	2	6	TD
214	22SDME05A	3D MODELLING AND DIGITAL PROTOTYPING	A	0	0	6	4	4	10	MP

215	22SDME05P	3D MODELLING AND DIGITAL PROTOTYPING	P	0	0	6	4	4	10	MP
216	22SDME05R	3D MODELLING AND DIGITAL PROTOTYPING	R	0	0	2	4	2	6	MP
217	22SDME06A	GEOMETRIC DIMENSIONING AND TOLERANCING	A	0	0	6	4	4	10	MT
218	22SDME06P	GEOMETRIC DIMENSIONING AND TOLERANCING	P	0	0	6	4	4	10	MT
219	22SDME06R	GEOMETRIC DIMENSIONING AND TOLERANCING	R	0	0	2	4	2	6	MT
220	23SDEE01A	VISUALIZATION AND MODELING OF CIRCUITS	A	0	0	6	4	4	10	BEEC
221	23SDEE01P	VISUALIZATION AND MODELING OF CIRCUITS	P	0	0	6	4	4	10	BEEC
222	23SDEE01R	VISUALIZATION AND MODELING OF CIRCUITS	R	0	0	2	4	2	6	BEEC
223	22SDDT01R	ENTREPRENEURIAL TECHNOLOGY DEVELOPMENT AND PROTOTYPING	R	0	0	2	4	2	6	DTI
224	22SDDT01A	ENTREPRENEURIAL TECHNOLOGY DEVELOPMENT AND PROTOTYPING	A	0	0	6	4	4	10	DTI
225	22SDDT01P	ENTREPRENEURIAL TECHNOLOGY DEVELOPMENT AND PROTOTYPING	P	0	0	6	4	4	10	DTI
226	22SDDT02R	ENTREPRENEURSHIP AND BUSINESS PLANNING	R	0	0	2	4	2	6	DTI
227	22SDDT02A	ENTREPRENEURSHIP AND BUSINESS PLANNING	A	0	0	6	4	4	10	DTI
228	22SDDT02P	ENTREPRENEURSHIP AND BUSINESS PLANNING	P	0	0	6	4	4	10	DTI
229	22SDDT03R	STRATEGIC MARKETING FOR ENTREPRENEURIAL SUCCESS	R	0	0	2	4	2	6	ETDP
230	22SDDT03A	STRATEGIC MARKETING FOR ENTREPRENEURIAL SUCCESS	A	0	0	6	4	4	10	ETDP
231	22SDDT03P	STRATEGIC MARKETING FOR ENTREPRENEURIAL SUCCESS	P	0	0	6	4	4	10	ETDP
232	22SDDT04R	ENTREPRENEURIAL SCALE-UP & COMMERCIALIZATION STRATEGIES	R	0	0	2	4	2	6	EBP
233	22SDDT04A	ENTREPRENEURIAL SCALE-UP & COMMERCIALIZATION STRATEGIES	A	0	0	6	4	4	10	EBP
234	22SDDT04P	ENTREPRENEURIAL SCALE-UP & COMMERCIALIZATION STRATEGIES	P	0	0	6	4	4	10	EBP
235	22TBAD01	COMPUTATIONAL INTELLIGENCE USING PYTHON	R	0	0	0	4	0	4	CTSD
236	22TBAD02	CLOUD BASED AI TOOLS	R	0	0	0	4	0	4	OS
237	22TBBT01	DOCKING	R	0	0	0	4	0	4	BI
238	22TBCE01	AUTO-CAD	R	0	0	0	4	0	4	BMPD
239	22TBCE02	PROJECT MANAGEMENT READY	R	0	0	0	4	0	4	CPM
240	22TBCI01	ROBOTIC PROCESS AUTOMATION	R	0	0	0	4	0	4	CTOD
241	22TBCI02	MOBILE APPLICATION DEVELOPMENT	R	0	0	0	4	0	4	CTOD
242	22TBCS01	CLOUD FOUNDATIONS - AWS	R	0	0	0	4	0	4	OS
243	22TBCS02	GOOGLE CLOUD	R	0	0	0	4	0	4	NIL
244	22TBCS03	AUTOMATION ANYWHERE	R	0	0	0	4	0	4	NIL
245	22TBCS04	BLUE PRISM	R	0	0	0	4	0	4	NIL
246	22TBCS05	UI PATH	R	0	0	0	4	0	4	NIL
247	22TBEC01	BIO ELECTRONICS SYSTEMS	R	0	0	0	4	0	4	NIL
248	22TBEC02	NETWORK DESIGN AND DEVELOPMENT	R	0	0	0	4	0	4	NIL
249	22TBEC03	DATA COMMUNICATION TOOLS - MATLAB/PYTHON	R	0	0	0	4	0	4	NIL
250	22TBEC04	EDA TOOLS FOR PCB	R	0	0	0	4	0	4	NIL

251	22TBEC05	MACHINE LEARNING WITH PYTORCH	R	0	0	0	4	0	4	NIL
252	22TBEC06	ROBOTICS ASSIMILATION USING PYTHON	R	0	0	0	4	0	4	NIL
253	22TBEC07	ELECTRONICS SYSTEM DESIGN USING ORCAD CAPTURE / PSPICE	R	0	0	0	4	0	4	NIL
254	22TBEC08	RADIO FREQUENCY CIRCUIT DESIGN	R	0	0	0	4	0	4	NIL
255	22TBEC09	BIO INSTRUMENTATION	R	0	0	0	4	0	4	NIL
256	22TBEC10	NETWORK AUTOMATION USING PYTHON	R	0	0	0	4	0	4	NIL
257	22TBEC11	SATELLITE MISSION ANALYSIS TOOL USING AGI-STK	R	0	0	0	4	0	4	NIL
258	22TBEC12	EMBEDDED PROGRAMMING	R	0	0	0	4	0	4	NIL
259	22TBEC13	SIGNAL AND IMAGE PROCESSING USING MATLAB	R	0	0	0	4	0	4	NIL
260	22TBEC14	ROBOT MODELING AND SIMULATION USING MATLAB	R	0	0	0	4	0	4	NIL
261	22TBEC15	DIGITAL SYSTEM DESIGN USING XILINX IDE	R	0	0	0	4	0	4	NIL
262	22TBEC16	ANTENNA MODELLING AND SIMULATION	R	0	0	0	4	0	4	NIL
263	22TBEE01	MULTISIM	R	0	0	0	4	0	4	BEEC
264	22TBEE02	POWER WORLD SIMULATOR	R	0	0	0	4	0	4	BEEC
265	22TBME01	PYTHON PROGRAMMING FOR MECHANICAL ENGINEERS	R	0	0	0	4	0	4	CTSD
266	22TBME02	JAVA PROGRAMMING FOR MECHANICAL ENGINEERS	R	0	0	0	4	0	4	OOP
267	22TBBT02	BIOVIA	R	0	0	0	4	0	4	BI
268	22TBIN01	EMBEDDED LINUX	R	0	0	0	4	0	4	ESD
269	22TBIN02	COMPUTER VISION WITH OPENCV	R	0	0	0	4	0	4	CTSD

LIST OF OPEN ELECTIVES										
Sl No	**COURSE CODE**	**COURSE TITLE**	**MODE**	**L**	**T**	**P**	**S**	**Cr**	**CH**	**PRE-REQUISITE**
1	OEEC0001	WIRELESS AD-HOC NETWORKS	R	3	0	0	0	3	3	NIL
2	OEEC0002	SWAM ROBOTICS CONTROL SYSTEMS	R	3	0	0	0	3	3	NIL
3	OEEC0003	DATA SCIENCE: DL AND NN	R	3	0	0	0	3	3	NIL
4	OEEC0004	SATELLITE SUB-SYSTEMS	R	3	0	0	0	3	3	NIL
5	OEEC0005	ML FOR ENGINEERING AND SCIENTIFIC APPLICATIONS	R	3	0	0	0	3	3	NIL
6	OEEC0006	INTRODUCTION TO MEMS	R	3	0	0	0	3	3	NIL
7	OEEC0007	ENERGY HARVESTING TECHNOLOGIES FOR IOT	R	3	0	0	0	3	3	NIL
8	OEEC0008	ELECTRONIC WARFARE, EMI & EMC	R	3	0	0	0	3	3	NIL
9	OEEC0011	IMAGE PROCESSING	R	3	0	0	0	3	3	NIL
10	OEEC0012	NANO ELECTRONICS	R	3	0	0	0	3	3	NIL
11	OEBT0001	IPR AND PATENT LAWS	R	3	0	0	0	3	3	NIL
12	OEBT0002	BIOMATERIALS	R	3	0	0	0	3	3	NIL
13	OEBT0003	ENVIRONMENTAL BIOTECHNOLOGY	R	3	0	0	0	3	3	NIL
14	OEBT0004	BIOLOGY FOR ENGINEERS	R	3	0	0	0	3	3	NIL
15	OEME0001	ROBOTICS	R	3	0	0	0	3	3	NIL
16	OEME0001M	ROBOTICS	M	4	0	0	0	4	4	NIL
17	OEME0002	MECHATRONICS	R	3	0	0	0	3	3	NIL
18	OEME0003	OPERATIONS RESEARCH	R	3	0	0	0	3	3	NIL
19	OEME0003M	OPERATIONS RESEARCH	M	4	0	0	0	4	4	NIL
20	OEEE0013	RENEWABLE ENERGY RESOURCES	R	3	0	0	0	3	3	NIL
21	OEEE0014	ENERGY ESTIMATION & AUDIT	R	3	0	0	0	3	3	NIL
22	OEEE0003	ELECTRICAL POWER ENGINEERING	R	3	0	0	0	3	3	NIL
23	OECE0002	ENVIRONMENTAL POLLUTION CONTROL METHODS	R	3	0	0	0	3	3	NIL
24	OECE0003	SOLID AND HAZARDOUS WASTE MANAGEMENT	R	3	0	0	0	3	3	NIL
25	OECE0004	REMOTE SENSING & GIS	R	3	0	0	0	3	3	NIL
26	OECS0006	FUNDAMENTAL OF SOFTWARE ENGINEERING	R	3	0	0	0	3	3	NIL
27	OECS0007	FUNDAMENTAL OF DBMS	R	3	0	0	0	3	3	NIL
28	OECS0008	FUNDAMENTALS OF INFORMATION TECHNOLOGY	R	3	0	0	0	3	3	NIL
29	OEME4001M	GRAPHIC DESIGN	M	4	0	0	0	4	4	NIL
30	OEVC4002M	PHOTOGRAPHY BASICS	M	4	0	0	0	4	4	NIL
31	OECE4003M	EXPLORING OUR RESPONSES TO CLIMATE CHANGE	M	4	0	0	0	4	4	NIL
32	OEEE4224M	SELF-DRIVING CARS	M	4	0	0	0	4	4	NIL
33	OEEE4222M	ENERGY PRODUCTION, DISTRIBUTION & SAFETY	M	4	0	0	0	4	4	NIL
34	OECE4221M	CONSTRUCTION MANAGEMENT	M	4	0	0	0	4	4	NIL
35	OECE4223M	GEOGRAPHIC INFORMATION SYSTEMS	M	4	0	0	0	4	4	NIL
36	OEAD0001	FUNDAMENTALS OF BIG DATA	R	3	0	0	0	3	3	NIL
37	OEAD0002	DATA SCIENCE AND VISUALIZATION	R	3	0	0	0	3	3	NIL
38	OEAD0003	MEDICAL DATA ANALYTICS	R	3	0	0	0	3	3	NIL
39	OEIN0001	FUNDAMENTALS OF IOT	R	3	0	0	0	3	3	NIL
40	OECI0001	FOUNDATIONS OF INFORMATION SYSTEMS	R	3	0	0	0	3	3	NIL
41	OEGN0001	NATIONAL CADET CORPS (NCC)-1	R	2	0	2	0	3	2	NIL
42	OEGN0002	NATIONAL CADET CORPS (NCC)-2	R	2	0	2	0	3	2	NIL
43	OEGN0003	NATIONAL CADET CORPS (NCC)-3	R	2	0	2	0	3	2	NIL
44	OEGN0004	NATIONAL SERVICE SCHEME-1	R	2	0	2	0	3	2	NIL
45	OEGN0005	NATIONAL SERVICE SCHEME-2	R	2	0	2	0	3	2	NIL
46	OEGN0006	NATIONAL SERVICE SCHEME-3	R	2	0	2	0	3	2	NIL
47	OEGN0007	ACTING SKILLS	R	2	0	0	4	3	6	NIL

LIST OF FOREIGN LANGUAGE ELECTIVES										
Sl No	**COURSE CODE**	**COURSE TITLE**	**MODE**	**L**	**T**	**P**	**S**	**Cr**	**CH**	**PRE-REQUISITE**
1	22FL3051	ARABIC LANGUAGE	R/M	2	0	0	0	2	2	NIL
2	22FL3052	BENGALI LANGUAGE	R/M	2	0	0	0	2	2	NIL
3	22FL3053	CHINESE LANGUAGE	R/M	2	0	0	0	2	2	NIL
4	22FL3054	FRENCH LANGUAGE	R/M	2	0	0	0	2	2	NIL
5	22FL3055	GERMAN LANGUAGE	R/M	2	0	0	0	2	2	NIL
6	22FL3057	ITALIAN LANGUAGE	R/M	2	0	0	0	2	2	NIL
7	22FL3058	JAPANESE LANGUAGE	R/M	2	0	0	0	2	2	NIL
8	22FL3060	RUSSIAN LANGUAGE	R/M	2	0	0	0	2	2	NIL
9	22FL3062	SPANISH LANGUAGE	R/M	2	0	0	0	2	2	NIL
10	22FL3063	MANDARIN LANGUAGE	R/M	2	0	0	0	2	2	NIL

LIST OF MANAGEMENT ELECTIVES										
Sl No	**COURSE CODE**	**COURSE TITLE**	**MODE**	**L**	**T**	**P**	**S**	**Cr**	**CH**	**PRE-REQUISITE**
1	22MB0001	BASICS OF MARKETING FOR ENGINEERS	R	2	0	0	0	2	2	Nil
2	22MB0002	PARADIGMS IN MANAGEMENT THOUGHT	R	2	0	0	0	2	2	Nil
3	22MB0005	MANAGING PERSONAL FINANCE	R	2	0	0	0	2	2	Nil
4	22MB0003	FINANCIAL MANAGEMENT FOR ENGINEERS	R	2	0	0	0	2	2	Nil
5	22MB0004	ORGANIZATION MANAGEMENT	R	2	0	0	0	2	2	Nil
6	22MB4058M	SIX SIGMA YELLOW BELT	M	4	0	0	0	4	4	NIL
7	22MB4059M	SEARCH ENGINE OPTIMIZATION	M	4	0	0	0	4	4	NIL
8	22MB4060M	FINTECH:FINANCE INDUSTRY TRANSFORMATION AND REGULATION	M	4	0	0	0	4	4	NIL
9	22MB4009M	LEADING SUSTAINABLE COMMUNITY TRANSFORMATION	M	4	0	0	0	4	4	NIL
10	22MB4010M	DIGITAL MARKETING	M	4	0	0	0	4	4	NIL

List of Additional Electives to complete three levels of Japanese Language and 24 Credits of NCC										
Sl No	**COURSE CODE**	**COURSE TITLE**	**MODE**	**L**	**T**	**P**	**S**	**Cr**	**CH**	**PRE-REQUISITE**
1	22FL3064	JAPANESE LANGUAGE (LEVEL-1)	R	2	0	0	0	2	2	NIL
2	22FL3065	JAPANESE LANGUAGE (LEVEL-2)	R	2	0	0	0	2	2	NIL
3	22FL3066	JAPANESE LANGUAGE (LEVEL-3)	R	2	0	0	0	2	2	NIL
4	OEGN0011	NATIONAL CADET CORPS (NCC)-4	R	2	0	0	0	2	2	NIL
5	OEGN0012	CAMP-1	R	2	0	0	0	2	2	NIL
6	OEGN0013	CAMP-2	R	2	0	0	0	2	2	NIL

List of Campus Recruitment & Career Adavancement Training Courses							
Sl No	**COURSE CODE**	**COURSE TITLE**	**L**	**T**	**P**	**S**	**Cr**
1	22UCCOD1	CAMPUS RECRUITMENT: LOGIC BUILDING SKILLS TRAINING (LEVEL 1)	0	0	0	8	0
2	22UCCOD2	CAMPUS RECRUITMENT: CODING SKILLS TRAINING - DATA STRUCTURES (LEVEL 2)	0	0	0	8	0
3	22UCCOD3	CAMPUS RECRUITMENT: CODING SKILLS TRAINING - ALGORITHMS (LEVEL 3)	0	0	0	8	0
4	22UCSSS1	CAMPUS RECRUITMENT: SOFT SKILLS TRAINING	0	0	0	8	0
5	22UCVQR1	CAMPUS RECRUITMENT: VERBAL APTITUDE TRAINING	0	0	0	8	0
6	22UCCSS1	CAMPUS RECRUITMENT: COMMUNICATION SKILLS TRAINING	0	0	0	8	0
7	22UCVQR2	CAMPUS RECRUITMENT: QUANTITATIVE APTITUDE TRAINING	0	0	0	8	0
8	22UCVQR3	CAMPUS RECRUITMENT: REASONING APTITUDE TRAINING	0	0	0	8	0
9	22UCIND1	CAMPUS RECRUITMENT: INDUSTRY-SPECIFIC TRAINING	0	0	0	8	0
10	22UCIND2	CAMPUS RECRUITMENT: INDUSTRY-SPECIFIC TRAINING	0	0	0	8	0
11	22UCCOR1	CAREER ADVANCEMENT: TRAINING IN CORE DOMAIN	0	0	0	8	0
12	22UCCOR2	CAREER ADVANCEMENT: TRAINING IN CORE DOMAIN	0	0	0	8	0
13	22UCCOR3	CAREER ADVANCEMENT: TRAINING IN CORE DOMAIN	0	0	0	8	0
14	22UCCOR4	CAREER ADVANCEMENT: TRAINING IN CORE DOMAIN	0	0	0	8	0
15	22UCTBL1	CAMPUS RECRUITMENT: TOOL BASED TRAINING	0	0	0	8	0
16	22UCTBL2	CAMPUS RECRUITMENT: TOOL BASED TRAINING	0	0	0	8	0
17	22UCUPS1	CAREER ADVANCEMENT: UPSC-CSE TRAINING	0	0	0	8	0
18	22UCUPS2	CAREER ADVANCEMENT: UPSC-CIVIL SERVICES EXAM TRAINING	0	0	0	8	0
19	22UCUPS3	CAREER ADVANCEMENT: UPSC-CIVIL SERVICES EXAM TRAINING	0	0	0	8	0
20	22UCGAT1	CAREER ADVANCEMENT: GATE TRAINING	0	0	0	8	0
21	22UCGAT2	CAREER ADVANCEMENT: GATE TRAINING	0	0	0	8	0
22	22UCGRE1	CAREER ADVANCEMENT: GRE, TOEFL & IELTS TRAINING	0	0	0	8	0
23	22UCGRE2	CAREER ADVANCEMENT: GRE, TOEFL & IELTS TRAINING	0	0	0	8	0
24	22UCGRE3	CAREER ADVANCEMENT: GRE, TOEFL & IELTS TRAINING	0	0	0	8	0
25	22UCCAT1	CAREER ADVANCEMENT: CAT, GMAT TRAINING	0	0	0	8	0
26	22UCCAT2	CAREER ADVANCEMENT: CAT, GMAT TRAINING	0	0	0	8	0

ENGINEERING PG COURSE STRUCTURES
M.Tech - Bio Technology

S.No	Course Code	Course Title	Category	L	T	P	S	Cr	CH	Pre-requisite
1	22BT5101	Mathematics and Biostatistics	PC	3	1	0	0	4	4	Nil
2	22BT5102	Biochemical Engineering	PC	3	0	2	0	4	5	Nil
3	22BT5103	Molecular Biology and r-DNA Technology	PC	3	0	2	0	4	5	Nil
4	22BT5104	Applied Bioinformatics	PC	3	0	2	0	4	5	Nil
5	22BT5105	Plant and Animal Biotechnology	PC	3	0	2	0	4	5	Nil
6	22BT5106	Immunotechnology	PC	3	0	2	0	4	5	Nil
7	22BT5107	Bioreactor modeling and Simulation	PC	3	1	0	0	4	4	Nil
8	22BT5108	Downstream Processing	PC	3	0	2	0	4	5	Nil
9		Elective -1	PE	3	0	0	0	3	3	Nil
10		Elective -2	PE	3	0	0	0	3	3	Nil
11		Elective -3	PE	3	0	0	0	3	3	Nil
12		Elective -4	PE	3	0	0	0	3	3	Nil
13	22IE5148	Seminar	PR	0	0	4	0	2	4	Nil
14	22IE5149	Term paper	PR	0	0	4	0	2	4	Nil
15	22IE6150	Dissertation	PR	0	0	36	0	18	36	Nil
16	22IE6250	Dissertation	PR	0	0	36	0	18	36	Nil
Grand Total Credits								**84**		
Elective -1										
1	22BT51A1	Protein Engineering	PE-1	3	0	0	0	3	3	NIL
2	22BT51A2	Enzyme Technology	PE-1	3	0	0	0	3	3	NIL
3	22BT51A3	Medical Biotechnology	PE-1	3	0	0	0	3	3	NIL
4	22BT51A4	Stem cell technology	PE-1	3	0	0	0	3	3	NIL
5	22BT51A5	Molecular Modeling and Drug Design	PE-1	3	0	0	0	3	3	NIL
Elective – 2										
1	22BT51B1	Food Technology	PE-2	3	0	0	0	3	3	NIL
2	22BT51B5	Bioreactor Operations	PE-2	3	0	0	0	3	3	NIL
3	22BT51B3	Bio mining	PE-2	3	0	0	0	3	3	NIL
4	22BT51B4	Bioprocess validation and cGMP	PE-2	3	0	0	0	3	3	NIL
Elective -3										
1	22BT52C6	Computational programming for Biologists	PE-3	3	0	0	0	3	3	NIL
2	22BT52C2	Bioprocess Technology	PE-3	3	0	0	0	3	3	NIL
3	22BT52C3	Environmental Biotechnology	PE-3	3	0	0	0	3	3	NIL

4	22BT52C4	Nano Biotechnology	PE-3	3	0	0	0	3	3	NIL
5	22BT52C7	Intellectual Property Rights, Biosafety and Bioethics	PE-3	3	0	0	0	3	3	NIL
Elective – 4										
1	22BT52D1	Regulatory affairs & Clinical trials	PE-4	3	0	0	0	3	3	NIL
2	22BT52D2	Bioprocess economics and plant design	PE-4	3	0	0	0	3	3	NIL
3	22BT52D5	Methods in genomics, transcriptomics, proteomics and metabolomics	PE-4	3	0	0	0	3	3	NIL
4	22BT52D6	Advanced Biocatalyst and Biocatalysis	PE-4	3	0	0	0	3	3	NIL

M.Tech - Construction Technology & Management

Sl No	Course Code	Course Title	Category	L	T	P	S	Cr	CH	Pre-requisite
1	22CE5121	Construction Planning Scheduling and Control	PC	3	0	2	0	4	5	Nil
2	22CE5122	Sustainable Construction Materials and Methods	PC	3	0	2	0	4	5	Nil
3	22CE5123	Lean Construction Practices	PC	3	1	0	0	4	4	Nil
4	22CE5124	Building Information Modelling	PC	3	0	2	0	4	5	Nil
5	22CE5225	Mechanized Construction and Machinery	PC	3	0	2	0	4	5	Nil
6	22CE5226	Project Formulation Appraisal	PC	3	1	0	0	4	4	Nil
7	22CE5227	Construction Laws and Regulations	PC	3	1	0	0	4	4	Nil
8	22CE5228	Quality Management and Safety Management Systems in Construction	PC	3	0	2	0	4	5	Nil
9		Elective-1	PE	3	0	0	0	3	3	Nil
10		Elective-2	PE	3	0	0	0	3	3	Nil
11		Elective-3	PE	3	0	0	0	3	3	Nil
12		Elective-4	PE	3	0	0	0	3	3	Nil
13	22IE5149	Seminar	PR	0	0	4	0	2	4	Nil
14	22IE5250	Term Paper	PR	0	0	4	0	2	4	Nil
15	22IE6150	Dissertation	PR	0	0	36	0	18	36	Nil
16	22IE6250	Dissertation	PR	0	0	36	0	18	36	Nil
Grand Total Credits								**84**		

Elective – 1										
1	22CE51E1	Material Procurement Management	PE-1	3	0	0	0	3	3	Nil
2	22CE51E2	Green Buildings	PE-1	3	0	0	0	3	3	Nil
Elective – 2										
3	22CE51F1	Construction Personnel Management	PE-2	3	0	0	0	3	3	Nil
4	22CE51F2	Pre-Engineering Construction and Technology	PE-2	3	0	0	0	3	3	Nil
Elective – 3										
5	22CE52G1	Statistical Methods in Construction	PE-3	3	0	0	0	3	3	Nil
6	22CE52G2	Project Risk Management	PE-3	3	0	0	0	3	3	Nil
Elective – 4										
7	22CE52H1	Emerging Construction Technologies	PE-4	3	0	0	0	3	3	Nil
8	22CE52H2	Resource Management and Control in Construction	PE-4	3	0	0	0	3	3	Nil

M.Tech - Geo Technical Engineering

Sl No	Course Code	Course Title	Category	L	T	P	S	Cr	CH	Pre-requisite
1	22CE5161	Advanced Soil Mechanics	PC	3	0	2	0	4	5	Nil
2	22CE5162	Sub Surface Investigations	PC	3	0	2	0	4	5	Nil
3	22CE5163	Geo Environmental Engineering	PC	3	0	2	0	4	5	Nil
4	22CE5164	Ground Improvement Techniques	PC	3	0	2	0	4	5	Nil
5	22CE5265	Soil Dynamics and Geotechnical Earthquake Engineering	PC	3	0	2	0	4	5	Nil
6	22CE5266	Geo Synthetics and Design of Retaining Walls	PC	3	0	2	0	4	5	Nil
7	22CE5267	Design of Earth and Earth Retaining Structures	PC	3	0	2	0	4	5	Nil
8	22CE5268	Advanced Foundation Engineering	PC	3	0	2	0	4	5	Nil
9		Elective-1	PE	3	0	0	0	3	3	Nil
10		Elective-2	PE	3	0	0	0	3	3	Nil
11		Elective-3	PE	3	0	0	0	3	3	Nil
12		Elective-4	PE	3	0	0	0	3	3	Nil
13	22IE5149	Seminar	PR	0	0	4	0	2	4	Nil

14	22IE5250	Term Paper	PR	0	0	4	0	2	4	Nil
15	22IE6150	Dissertation	PR	0	0	36	0	18	36	Nil
16	22IE6250	Dissertation	PR	0	0	36	0	18	36	Nil
Grand Total Credits								**84**		
Elective – 1										
1	22CE51M1	Soil structure interaction	PE-1	3	0	0	0	3	3	Nil
2	22CE51M2	Finite Element Methods	PE-1	3	0	0	0	3	3	Nil
Elective – 2										
3	22CE51N1	Stability Analysis of Slopes	PE-2	3	0	0	0	3	3	Nil
4	22CE51N2	Design of Highways and Airfiled Pavements	PE-2	3	0	0	0	3	3	Nil
Elective – 3										
5	22CE52O1	Solid Waste Management and Landfills	PE-3	3	0	0	0	3	3	Nil
6	22CE52O2	Offshore Geotechnical engineering	PE-3	3	0	0	0	3	3	Nil
Elective – 4										
7	22CE52P1	RS and GIS Applications in Civil Engineering	PE-4	3	0	0	0	3	3	Nil
8	22CE52P2	Constitutive Modeling in Geo-techniques	PE-4	3	0	0	0	3	3	Nil

M.Tech - Structural Engineering

Sl No	Course Code	Course Title	Category	L	T	P	S	Cr	CH	Pre-requisite
1	22CE5101	Advanced Mechanics of Solids	PC	3	1	0	0	4	4	Nil
2	22CE5102	Advanced Pre-stressed Concrete Design	PC	3	1	0	0	4	4	Nil
3	22CE5103	Advanced Concrete Technology	PC	3	0	2	0	4	5	Nil
4	22CE5104	Structural Dynamics	PC	3	0	2	0	4	5	Nil
5	22CE5205	Theory of Plates and Shells	PC	3	1	0	0	4	4	Nil
6	22CE5206	Finite Element Analysis	PC	3	0	2	0	4	5	Nil
7	22CE5207	Bridge Engineering	PC	3	1	0	0	4	4	Nil
8	22CE5208	Earthquake resistant design of structures	PC	3	0	2	0	4	5	Nil
9		Elective-1	PE	3	0	0	0	3	3	Nil
10		Elective-2	PE	3	0	0	0	3	3	Nil
11		Elective-3	PE	3	0	0	0	3	3	Nil

12		Elective-4	PE	3	0	0	0	3	3	Nil
13	22IE5149	Seminar	PR	0	0	4	0	2	4	Nil
14	22IE5250	Term Paper	PR	0	0	4	0	2	4	Nil
15	22IE6150	Dissertation	PR	0	0	36	0	18	36	Nil
16	22IE6250	Dissertation	PR	0	0	36	0	18	36	Nil
Grand Total Credits								**84**		
Elective – 1										
1	20CE51A1	Pre Engineered Structures	PC	3	0	0	0	3	3	Nil
2	20CE51A2	Design of Offshore Structures	PC	3	0	0	0	3	3	Nil
Elective – 2										
3	20CE51B1	Design and Detailing of Structures	PC	3	0	0	0	3	3	Nil
4	20CE51B2	Repair and Rehabilitation of Structures	PC	3	0	0	0	3	3	Nil
Elective – 3										
5	20CE52C1	Fracture Mechanics	PC	3	0	0	0	3	3	Nil
6	20CE52C2	Design of Tall Structures	PC	3	0	0	0	3	3	Nil
Elective – 4										
7	20CE52D1	Green Buildings	PC	3	0	0	0	3	3	Nil
8	20CE52D2	Stability of structures	PC	3	0	0	0	3	3	Nil

M.Tech – Computer Science & Engineering

Sl No	Course Code	Course Title	Category	L	T	P	S	Cr	CH	Pre-requisite
1	22CS5101	Mathematical Foundations for Computer Science	PC	3	2	0	0	5	5	Nil
2	22CS5102	Computer Organization & Architecture	PC	3	2	0	0	5	5	Nil
3	22CS5103	Data Structures & Algorithms	PC	3	0	2	0	4	5	Nil
4	22CS5104	Machine Learning & Reinforcement Learning	PC	3	0	2	0	4	5	Nil
5	22CS5205	Operating System Design	PC	3	2	0	0	5	5	Nil
6	22CS5206	Computer Networks & Security	PC	3	2	0	0	5	5	Nil
7	22CS5207	Object Oriented Analysis and Design	PC	3	0	2	0	4	5	Nil
8	22CS5208	Enterprise Programming	PC	3	0	2	0	4	5	Nil
9		Elective-1	PE	2	0	2	4	4	8	Nil
10		Elective-2	PE	2	0	2	0	3	4	Nil
11		Elective-3	PE	3	0	4	4	6	11	Nil
12		Elective-4	PE	3	0	4	4	6	11	Nil

13	22IE5149	Seminar	PR	0	0	4	0	2	4	Nil
14	22IE5250	Term Paper	PR	0	0	4	0	2	4	Nil
15	22IE6150	Dissertation	PR	0	0	36	0	18	36	Nil
16	22IE6250	Dissertation	PR	0	0	36	0	18	36	Nil
Grand Total Credits								**95**		
Elective-1										
1	22CS51A1	Soft Computing	PE-1	2	0	2	4	4	8	Nil
2	22CS51A2	Machine Learning	PE-1	2	0	2	4	4	8	Nil
3	22CS51A3	Data Mining	PE-1	2	0	2	4	4	8	Nil
4	22CS51A4	Natural Language Processing	PE-1	2	0	2	4	4	8	Nil
Elective-2										
1	22CS51B1	Requirements Engineering	PE-2	2	0	2	0	3	4	Nil
2	22CS51B2	Principles of Programming Languages	PE-2	2	0	2	0	3	4	Nil
3	22CS51B3	Compiler Design	PE-2	2	0	2	0	3	4	Nil
4	22CS51B4	Software Verification & Validation	PE-2	2	0	2	0	3	4	Nil
Elective-3										
1	22CS52C1	Cryptography & Network Security	PE-3	3	0	4	4	6	11	Nil
2	22CS52C2	Mobile computing	PE-3	3	0	4	4	6	11	Nil
3	22CS52C3	High Performance Computing	PE-3	3	0	4	4	6	11	Nil
4	22CS52C4	Network management Systems	PE-3	3	0	4	4	6	11	Nil
5	22CS52C5	Continuous Delivery & Devops	PE-3	3	0	4	4	6	11	Nil
Elective-4										
1	22CS52D1	Service Oriented Architecture	PE-4	3	0	4	4	6	11	Nil
2	22CS52D2	Visual Programming	PE-4	3	0	4	4	6	11	Nil
3	22CS52D3	Digital Image Processing	PE-4	3	0	4	4	6	11	Nil
4	22CS52D4	Big Data Analytics	PE-4	3	0	4	4	6	11	Nil

M.Tech - Artificial Intelligence and Data Science

Sl No	Course Code	Course Name	Category	L	T	P	S	Cr	CH	Pre-requisite
1	22CS5109	Mathematical Programming - 1	PC	3	2	0	0	5	5	Nil
2	22CS5110	Computational Thinking For Object Oriented Design	PC	3	0	4	0	5	7	Nil
3	22CS5111	Big Data Analytics	PC	3	0	2	0	4	5	Nil
4	22CS5112	Machine Learning & Reinforcement Learning	PC	3	0	2	0	4	5	Nil
5	22CS5113	Mathematical Programming - 2	PC	2	2	0	0	4	4	Nil
6	22CS5114	Data Structures & Algorithms	PC	3	0	4	4	6	11	Nil
7	22CS5115	Advanced Databases	PC	3	0	2	0	4	5	Nil

8	22CS5116	Deep Learning	PC	3	0	4	4	6	11	Nil
9		Elective-1	PE	2	0	2	4	4	8	Nil
10		Elective-2	PE	2	0	2	0	3	4	Nil
11		Elective-3	PE	3	0	2	0	4	5	Nil
12		Elective-4	PE	3	0	2	0	4	5	Nil
13	22IE5149	Seminar	PR	0	0	4	0	2	4	Nil
14	22IE5250	Term Paper	PR	0	0	4	0	2	4	Nil
15	22IE6150	Dissertation	PR	0	0	36	0	18	36	Nil
16	22IE6250	Dissertation	PR	0	0	36	0	18	36	Nil
Grand Total Credits								**93**		
Elective-1										
1	22CS51E1	Cloud infrastructure & Services	PE-1	2	0	2	4	4	8	Nil
2	22CS51E2	Parallel & Distributed Computing	PE-1	2	0	2	4	4	8	Nil
3	22CS51E3	Cloud Devops	PE-1	2	0	2	4	4	8	Nil
Elective-2										
1	22CS51F1	Computer Vision and Perception	PE-2	2	0	2	0	3	4	Nil
2	22CS51F2	Soft Computing	PE-2	2	0	2	0	3	4	Nil
3	22CS51F3	Artificial Neural Networks	PE-2	2	0	2	0	3	4	Nil
Elective-3										
1	22CS51G1	Data Warehousing & Mining	PE-3	3	0	2	0	4	5	Nil
2	22CS51G2	Graph & Web Analytics	PE-3	3	0	2	0	4	5	Nil
3	22CS51G3	Big Data Optimization	PE-3	3	0	2	0	4	5	Nil
Elective-4										
1	22CS52H1	Cognitive Computing	PE-4	3	0	2	0	4	5	Nil
2	22CS52H2	Natural Language Processing	PE-4	3	0	2	0	4	5	Nil
3	22CS52H3	Edge Computing	PE-4	3	0	2	0	4	5	Nil

M.Tech – Robotics & Automation

Sl No	Course Code	Course Title	Category	L	T	P	S	Cr	CH	Pre-requisite
1	22RA5141	Non-linear systems and control optimization for robotics	PC	3	1	2	0	5	6	Nil
2	22RA5142	Robotics: Cyber Physical Systems	PC	3	0	2	0	4	5	Nil
3	22RA5143	IIoE 4.0 for Automation and Robotic systems	PC	3	0	2	0	4	5	Nil
4	22EC5104	Artificial intelligence & Machine learning	PC	3	0	2	0	4	5	Nil
5	22TS51A1	Technical Skilling (Huawei – AI and WC) , ADAMS	PC	0	0	0	8	2	8	Nil
6	22RA5244	Advanced Robotic Wireless Sensor Networks	PC	3	1	2	0	5	6	Nil
7	22RA5245	Autonomous mobile robots and Automotive Electronics	PC	3	1	2	0	5	6	Nil

8	22RA5246	Micro electro mechanical Sensors and Actuators for Robotics	PC	3	0	2	0	4	5	Nil
9	22RA5247	Algorithms for Robotics Sensor Fusion	PC	3	0	0	0	3	3	Nil
10	22TS52A2	Technical Skilling	PC	0	0	0	8	2	8	Nil
11		Elective-1	PE	3	0	0	0	3	3	Nil
12		Elective-2	PE	3	0	0	0	3	3	Nil
13		Elective-3	PE	3	0	0	0	3	3	Nil
14		Elective-4	PE	3	0	0	0	3	3	Nil
15	22IE5149	Seminar	PR	0	0	4	0	2	4	Nil
16	22IE5250	Term Paper	PR	0	0	4	0	2	4	Nil
17	22IE6150	Dissertation	PR	0	0	36	0	18	36	Nil
18	22IE6250	Dissertation	PR	0	0	36	0	18	36	Nil
Grand Total Credits								**90**		
Elective – 1										
1	22RA51A1	Robotics: Design of Sensors, Drives and Actuators	PE-1	3	0	0	0	3	3	Nil
2	22RA51A2	Autonomous mobile Robot systems	PE-1	3	0	0	0	3	3	Nil
3	22RA51A3	Deep Neural Network algorithm for Robotics	PE-1	3	0	0	0	3	3	Nil
4	22RA51A4	Swam Robotics Control Systems	PE-1	3	0	0	0	3	3	Nil
Elective – 2										
5	22RA51B1	Automated Dynamic Analysis of MEMS sensors & actuators	PE-2	3	0	0	0	3	3	Nil
6	22RA51B2	Human Machine Interface & Brain Machine Interface	PE-2	3	0	0	0	3	3	Nil
7	22EC51B1	LiDAR & RADAR System Control	PE-2	3	0	0	0	3	3	Nil
8	22EC51B3	Computer Vision & Applications	PE-2	3	0	0	0	3	3	Nil
Elective – 3										
9	22RA51C1	Adaptive motion control systems for automation and	PE-3	3	0	0	0	3	3	Nil
10	22RA51C2	FPGA-Based Wireless System Design	PE-3	3	0	0	0	3	3	Nil
11	22RA51C3	Signal Processing for Robotics	PE-3	3	0	0	0	3	3	Nil
12	22RA51C4	Cloud Robotics and Automation	PE-3	3	0	0	0	3	3	Nil
Elective – 4										
13	22RA51D1	Optimization algorithms for autonomous systems	PE-4	3	0	0	0	3	3	Nil

14	22RA51D2	Automotive Electronics & Avionics	PE-4	3	0	0	0	3	3	Nil
15	22RA51D3	Operation Research, System Engineering, Design &	PE-4	3	0	0	0	3	3	Nil
16	22RA51D4	Design of automation systems and Assistive Robotic systems	PE-4	3	0	0	0	3	3	Nil

M.Tech - Radar & Communications

Sl No	Course Code	Course Title	Category	L	T	P	S	Cr	CH	Pre-requisite
1	22EC5101	Wireless Communication and Data Networks	PC	3	1	2	0	5	6	Nil
2	22EC5102	Modern Radars & Autonomous Vehicles	PC	3	1	0	0	4	4	Nil
3	22EC5103	Smart Antennas	PC	3	0	2	0	4	5	Nil
4	22EC5104	Artificial Intelligence & Machine Learning	PC	3	0	2	0	4	5	Nil
5	22TS51R1	Technical Skilling - I	PC	0	0	0	8	2	8	Nil
6	22EC5205	5G NR - Next Generation Wireless Technologies	PC	3	1	2	0	5	6	Nil
7	22EC5206	RF System Design	PC	3	0	2	0	4	5	Nil
8	22EC5207	EMI/EMC & Electronic Warfare	PC	3	1	0	0	4	4	Nil
9	22EC5208	Modern Satellite Communication Systems	PC	3	0	2	0	4	5	Nil
10	22TS52R2	Technical Skilling - II	PC	0	0	0	8	2	8	Nil
11		Elective-1	PE	3	0	0	0	3	3	Nil
12		Elective-2	PE	3	0	0	0	3	3	Nil
13		Elective-3	PE	3	0	0	0	3	3	Nil
14		Elective-4	PE	3	0	0	0	3	3	Nil
15	22IE5149	Seminar	PR	0	0	4	0	2	4	Nil
16	22IE5250	Term Paper	PR	0	0	4	0	2	4	Nil
17	22IE6150	Dissertation	PR	0	0	36	0	18	36	Nil
18	22IE6250	Dissertation	PR	0	0	36	0	18	36	Nil
Grand Total Credits								**90**		
Elective – 1										
1	22EC51A1	GPS & Global Navigation Satellite System	PE-1	3	0	0	0	3	3	Nil
2	22EC51A2	Wireless multimedia Communications	PE-1	3	0	0	0	3	3	Nil
3	22EC51A3	Microwave and Millimetric wave Circuits	PE-1	3	0	0	0	3	3	Nil
4	22EC51A4	Radiation Systems	PE-1	3	0	0	0	3	3	Nil
Elective – 2										
5	22EC51B1	LiDAR & RADAR System Control	PE-2	3	0	0	0	3	3	Nil

6	22EC51B2	Internet of Things Architecture and Protocols	PE-2	3	0	0	0	3	3	Nil
7	22EC51B3	Computer Vision & Video Surveillance Systems	PE-2	3	0	0	0	3	3	Nil
8	22EC51B4	Remote Sensing & Sensors	PE-2	3	0	0	0	3	3	Nil
Elective – 3										
9	22EC51C1	Machine Learning for Wireless Communications	PE-3	3	0	0	0	3	3	Nil
10	22EC51C2	Phased array systems	PE-3	3	0	0	0	3	3	Nil
11	22EC51C3	High Performance Communication Networking	PE-3	3	0	0	0	3	3	Nil
12	22EC51C4	Estimation & Detection Theory	PE-3	3	0	0	0	3	3	Nil
Elective – 4										
13	22EC51D1	FPGA-Based Wireless System Design	PE-4	3	0	0	0	3	3	Nil
14	22EC51D2	Optical Wireless Communications	PE-4	3	0	0	0	3	3	Nil
15	22EC51T1	RF Mixed Signal IC Design	PE-4	3	0	0	0	3	3	Nil
16	22EC51D4	Block Chain & Cyber Security	PE-4	3	0	0	0	3	3	Nil

M.Tech – Internet of Things

Sl No	Course Code	Course Title	Category	L	T	P	S	Cr	CH	Pre-requisite
1	22EC51R2	Internet of Things Architecture and Protocols	PC	3	0	0	0	3	3	Nil
2	22IN5101	Embedded Controllers & SoCs	PC	3	1	2	0	5	6	Nil
3	22EC5101	Wireless Communication and Data Networks	PC	3	1	2	0	5	6	Nil
4	22EC5104	Artificial Intelligence and Machine Learning	PC	3	0	2	0	4	5	Nil
5	22TS51I1	Technical Skilling-I	PC	0	0	0	8	2	8	Nil
6	22IN5202	Wireless Sensor Network and Security	PC	3	1	2	0	5	6	Nil
7	22IN5203	IoT Cloud computing	PC	3	0	2	0	4	5	Nil
8	22IN5204	Big data Analytics for IoT	PC	3	0	0	0	3	3	Nil
9	22IN5205	IoT System Design Techniques	PC	3	1	2	0	5	6	Nil
10	22TS52I2	Technical Skilling-II	PC	0	0	0	8	2	8	Nil
11		Elective-1	PE	3	0	0	0	3	3	Nil
12		Elective-2	PE	3	0	0	0	3	3	Nil
13		Elective-3	PE	3	0	0	0	3	3	Nil
14		Elective-4	PE	3	0	0	0	3	3	Nil
15	22IE5149	Seminar	PR	0	0	4	0	2	4	Nil
16	22IE5250	Term Paper	PR	0	0	4	0	2	4	Nil

17	22IE6150	Dissertation	PR	0	0	36	0	18	36	Nil
18	22IE6250	Dissertation	PR	0	0	36	0	18	36	Nil
Grand Total Credits								**90**		
Elective – 1										
1	22IN51A1	IIoT 4.0 for Automation in Industries	PE-1	3	0	0	0	3	3	Nil
2	22IN51A2	Energy Harvesting Technologies for IoT	PE-1	3	0	0	0	3	3	Nil
3	22IN51A3	Advanced Embedded System Design	PE-1	3	0	0	0	3	3	Nil
4	22IN51A4	Data Management and Security	PE-1	3	0	0	0	3	3	Nil
Elective – 2										
5	22EC51B3	Computer Vision & Applications	PE-2	3	0	0	0	3	3	Nil
6	22RA51B2	Human Machine Interface & Brain-Machine Interface (HMIBMI)	PE-2	3	0	0	0	3	3	Nil
7	22IN51B2	Data Bases, Data Modelling & Data Structure	PE-2	3	0	0	0	3	3	Nil
8	22EC51Q2	System on Chip Design	PE-2	3	0	0	0	3	3	Nil
Elective – 3										
9	22IN51C1	Edge Computing and Mobile Applications	PE-3	3	0	0	0	3	3	Nil
10	22IN51C2	5G NR - Next Generation Wireless Technologies	PE-3	3	0	0	0	3	3	Nil
11	22RA51D1	Optimization algorithms for autonomous systems	PE-3	3	0	0	0	3	3	Nil
12	22RA51C1	Adaptive motion control systems for automation and robotics	PE-3	3	0	0	0	3	3	Nil
Elective – 4										
13	22EC51D4	Block chain & Cyber Security	PE-4	3	0	0	0	3	3	Nil
14	22RA51D2	Automotive Electronics & Avionics	PE-4	3	0	0	0	3	3	Nil
15	22EC51D1	FPGA-Based Wireless System Design	PE-4	3	0	0	0	3	3	Nil
16	22IN51D4	Cyber-Physical Systems	PE-4	3	0	0	0	3	3	Nil

M.Tech – VLSI

Sl No	Course Code	Course Title	Category	L	T	P	S	Cr	CH	Pre-requisite
1	22EC5128	MOS Circuit Design	PC	3	1	2	0	5	6	Nil
2	22EC5129	Digital VLSI Design	PC	3	0	2	0	4	5	Nil
3	22EC5130	Low power VLSI System Design	PC	3	1	0	0	4	4	Nil
4	22EC5104	Artificial Intelligence & Machine Learning	PC	3	0	2	0	4	5	Nil
5	22TS51V1	Technical Skilling-I (HDL)	PC	0	0	0	8	2	8	Nil
6	22EC5232	Analog IC Design	PC	3	1	2	0	5	6	Nil
7	22EC5233	Testing of VLSI Circuits	PC	3	1	2	0	5	6	Nil
8	22EC5234	Algorithms for VLSI Design Automation	PC	3	0	2	0	4	5	Nil
9	22EC5235	ASIC and FPGA Design	PC	3	0	0	0	3	3	Nil
10	22TS52V2	Technical Skilling-II (DFT)	PC	0	0	0	8	2	8	Nil
11		Elective-1	PE	3	0	0	0	3	3	Nil
12		Elective-2	PE	3	0	0	0	3	3	Nil
13		Elective-3	PE	3	0	0	0	3	3	Nil
14		Elective-4	PE	3	0	0	0	3	3	Nil
15	22IE5149	Seminar	PR	0	0	4	0	2	4	Nil
16	22IE5250	Term Paper	PR	0	0	4	0	2	4	Nil
17	22IE6150	Dissertation	PR	0	0	36	0	18	36	Nil
18	22IE6250	Dissertation	PR	0	0	36	0	18	36	Nil
Grand Total Credits								**90**		
Elective – 1										
1	22EC51Q1	IC Fabrication Technology	PE-1	3	0	0	0	3	3	Nil
2	22EC51Q2	System on Chip Design	PE-1	3	0	0	0	3	3	Nil
3	22EC51Q3	Nano Electronics	PE-1	3	0	0	0	3	3	Nil
4	22EC51Q4	Semiconductor Device Modeling	PE-1	3	0	0	0	3	3	Nil
Elective – 2										
5	22EC51R1	VLSI Signal Processing	PE-2	3	0	0	0	3	3	Nil
6	22EC51R2	Internet of Things Architecture and Protocols	PE-2	3	0	0	0	3	3	Nil
7	22EC51R3	VLSI Circuits for Bio-Medical Applications	PE-2	3	0	0	0	3	3	Nil
8	22EC51R4	Optimization Techniques in VLSI Design	PE-2	3	0	0	0	3	3	Nil
Elective – 3										
9	22EC51S1	Advanced Digital IC Design	PE-3	3	0	0	0	3	3	Nil
10	22EC51S2	Embedded System Design	PE-3	3	0	0	0	3	3	Nil
11	22EC51S3	CAD Tools for VLSI	PE-3	3	0	0	0	3	3	Nil
12	22EC51S4	Memory Design and Testing	PE-3	3	0	0	0	3	3	Nil

Elective – 4										
13	22EC51T1	FPGA-Based Wireless System Design	PE-4	3	0	0	0	3	3	Nil
14	22EC51T2	RF Mixed Signal IC Design	PE-4	3	0	0	0	3	3	Nil
15	22EC51T3	MEMS System Design	PE-4	3	0	0	0	3	3	Nil
16	22EC51T4	Block Chain & Cyber Security	PE-4	3	0	0	0	3	3	Nil

M.Tech - Electric Vehicle Technology

Sl No	Course Code	Course Title	Category	L	T	P	S	Cr	CH	Pre-requisite
1	22EE5101	Electric Vehicle Power Train Design	PC	3	1	0	0	4	4	Nil
2	22EE5102	Battery Modelling and State Estimation	PC	3	1	2	0	5	6	Nil
3	22EE5103	Mechanical Design of Vehicle	PC	3	0	2	0	4	5	Nil
4	22EE5104	Embedded Controllers and Applications	PC	3	0	2	0	4	5	Nil
5	22EE5201	Electric Vehicle Drives	PC	3	1	2	0	5	6	Nil
6	22EE5202	Fault Diagnosis and Control of Electric Vehicle	PC	3	1	0	0	4	4	Nil
7	22EE5203	Charging Station Design	PC	3	0	2	0	4	5	Nil
8	22EE5204	AI and IOT for Modern Electrical Systems	PC	3	1	0	0	4	4	Nil
9		Elective-1	PE	3	0	0	0	3	3	Nil
10		Elective-2	PE	3	0	0	0	3	3	Nil
11		Elective-3	PE	3	0	0	0	3	3	Nil
12		Elective-4	PE	3	0	0	0	3	3	Nil
13	22IE5149	Seminar	PR	0	0	4	0	2	4	Nil
14	22IE5250	Term Paper	PR	0	0	4	0	2	4	Nil
15	22IE6150	Dissertation	PR	0	0	36	0	18	36	Nil
16	22IE6250	Dissertation	PR	0	0	36	0	18	36	Nil
Grand Total Credits								**86**		
Elective – 1										
1	22EE51A1	Reliability Engineering	PE-1	3	0	0	0	3	3	Nil
2	22EE51A2	Applications of Python Programming for Electrical Systems	PE-1	3	0	0	0	3	3	Nil
3	22EE51A3	Energy Management Systems	PE-1	3	0	0	0	3	3	Nil
Elective – 2										
4	22EE51B1	Optimization Techniques	PE-2	3	0	0	0	3	3	Nil
5	22EE51B2	Advanced Control Theory	PE-2	3	0	0	0	3	3	Nil

6	22EE51B3	Model based Design for Electrical Systems	PE-2	3	0	0	0	3	3	Nil
Elective – 3										
7	22EE52A1	Digital Simulation of Power Electronic Systems	PE-3	3	0	0	0	3	3	Nil
8	22EE52A2	Switched Mode Power Supply and PWM Techniques	PE-3	3	0	0	0	3	3	Nil
9	22EE52A3	Adaptive Control Systems	PE-3	3	0	0	0	3	3	Nil
Elective – 4										
10	22EE52B1	Green Energy for Electric Vehicle Technology	PE-4	3	0	0	0	3	3	Nil
11	22EE52B2	Autonomous Vehicular Technology	PE-4	3	0	0	0	3	3	Nil
12	22EE52B3	Hybrid and Fuel Cell Vehicles	PE-4	3	0	0	0	3	3	Nil

M.Tech - Power Electronics Power Systems

Sl No	Course Code	Course Title	Category	L	T	P	S	Cr	CH	Pre-requisite
1	22EE5111	Analysis of Power Converters	PC	3	1	2	0	5	6	Nil
2	22EE5112	Advanced Power System Analysis and Protection	PC	3	1	0	0	4	4	Nil
3	22EE5113	Modelling and Analysis of Electrical Machines	PC	3	0	2	0	4	5	Nil
4	22EE5104	Embedded Controllers and Applications	PC	3	0	2	0	4	5	Nil
5	22EE5211	Advanced Electrical Drives	PC	3	0	2	0	4	5	Nil
6	22EE5212	Power System Stability and Control	PC	3	1	2	0	5	6	Nil
7	22EE5213	Grid Integration of Renewable Energy systems	PC	3	0	2	0	4	5	Nil
8	22EE5204	AI and IOT for Modern Electrical Systems	PC	3	1	0	0	4	4	Nil
9		Elective-1	PE	3	0	0	0	3	3	Nil
10		Elective-2	PE	3	0	0	0	3	3	Nil
11		Elective-3	PE	3	0	0	0	3	3	Nil
12		Elective-4	PE	3	0	0	0	3	3	Nil
13	22IE5149	Seminar	PR	0	0	4	0	2	4	Nil
14	22IE5250	Term Paper	PR	0	0	4	0	2	4	Nil
15	22IE6150	Dissertation	PR	0	0	36	0	18	36	Nil
16	22IE6250	Dissertation	PR	0	0	36	0	18	36	Nil
Grand Total Credits								**86**		

Elective – 1										
1	22EE51A1	Reliability Engineering	PE-1	3	0	0	0	3	3	Nil
2	22EE51A2	Applications of Python Programming for Electrical Systems	PE-1	3	0	0	0	3	3	Nil
3	22EE51A3	Energy Management Systems	PE-1	3	0	0	0	3	3	Nil
Elective – 2										
4	22EE51B1	Optimization Techniques	PE-2	3	0	0	0	3	3	Nil
5	22EE51B2	Advanced Control Theory	PE-2	3	0	0	0	3	3	Nil
6	22EE51D3	Deregulated Power Systems	PE-2	3	0	0	0	3	3	Nil
Elective – 3										
7	22EE52A1	Digital Simulation of Power Electronic Systems	PE-3	3	0	0	0	3	3	Nil
8	22EE52A2	Switched Mode Power Supply and PWM Techniques	PE-3	3	0	0	0	3	3	Nil
9	22EE52C3	FACTS & Power Quality	PE-3	3	0	0	0	3	3	Nil
Elective – 4										
10	22EE52D1	Smart Grid Technologies	PE-4	3	0	0	0	3	3	Nil
11	22EE52D2	Energy Conservation & Audit	PE-4	3	0	0	0	3	3	Nil
12	22EE52D3	Smart Appliances and Smart Cities	PE-4	3	0	0	0	3	3	Nil

M.Tech – Thermal Engineering

Sl No	Course Code	Course Title	Category	L	T	P	S	Cr	CH	Pre-requisite
1	22ME5109	Numerical Methods in Thermal Engineering	PC	3	0	2	0	4	5	Nil
2	22ME5110	Advanced Thermodynamics	PC	3	1	0	0	4	4	Nil
3	22ME5111	Design of Thermal Systems	PC	3	1	0	0	4	4	Nil
4	22ME5112	Advanced Heat and Mass Transfer	PC	3	1	0	0	4	4	Nil
5	22ME5213	Incompressible and Compressible Flows	PC	3	1	0	0	4	4	Nil
6	22ME5214	Computational Fluid Dynamics	PC	3	0	2	0	4	5	Nil
7	22ME5215	Refrigeration and Cryogenics	PC	3	1	0	0	4	4	Nil
8	22ME5216	Measurements in Thermal Engineering	PC	3	1	0	0	4	4	Nil
9		Elective-1	PE	3	0	0	0	3	3	Nil
10		Elective-2	PE	3	0	0	0	3	3	Nil

11		Elective-3	PE	3	0	0	0	3	3	Nil
12		Elective-4	PE	3	0	0	0	3	3	Nil
13	22IE5149	Seminar	PR	0	0	4	0	2	4	Nil
14	22IE5250	Term Paper	PR	0	0	4	0	2	4	Nil
15	22IE6150	Dissertation	PR	0	0	36	0	18	36	Nil
16	22IE6250	Dissertation	PR	0	0	36	0	18	36	Nil
Grand Total Credits								**84**		
Elective – 1										
1	22ME51E1	Heat Exchanger Design	PE-1	3	0	0	0	3	3	Nil
2	22ME51E2	Convection and Two-Phase Flow	PE-1	3	0	0	0	3	3	Nil
3	22ME51E3	Compact Heat Exchangers	PE-1	3	0	0	0	3	3	Nil
Elective – 2										
4	22ME51F1	Engine Performance and Emission Control	PE-2	3	0	0	0	3	3	Nil
5	22ME51F2	Thermal management of electric and electronic systems	PE-2	3	0	0	0	3	3	Nil
6	22ME51F3	Alternative Fuels	PE-2	3	0	0	0	3	3	Nil
Elective – 3										
7	22ME52G1	Principles of Turbo-machinery	PE-3	3	0	0	0	3	3	Nil
8	22ME52G2	Gas Turbine Engineering	PE-3	3	0	0	0	3	3	Nil
9	22ME52G3	Turbo-Compressors	PE-3	3	0	0	0	3	3	Nil
Elective – 4										
10	22ME52H1	Energy Conservation, Management & Audit	PE-4	3	0	0	0	3	3	Nil
11	22ME52H2	Renewable Energy Technology	PE-4	3	0	0	0	3	3	Nil
12	22ME52H3	Solar Energy and Wind Energy	PE-4	3	0	0	0	3	3	Nil

M.Tech - Machine Design

Sl No	Course Code	Course Title	Category	L	T	P	S	Cr	CH	Pre-requisite
1	22ME5117	Design Methods	PC	4	0	0	0	4	4	Nil
2	22ME5118	Design with Advanced materials	PC	3	0	0	0	3	3	Nil
3	22ME5119	Theory of Elasticity and Plasticity	PC	3	1	0	0	4	4	Nil
4	22ME5120	Modeling & Analysis-1 (CAD)	PC	4	0	2	0	5	6	Nil
5	22ME5221	Mechanical Vibrations	PC	3	0	0	0	3	3	Nil
6	22ME5222	Design for Optimization	PC	3	1	0	0	4	4	Nil
7	22ME5223	Advanced strength of materials	PC	3	1	0	0	4	4	Nil

8	22ME5224	Modeling & Analysis-2 (FEM)	PC	4	0	2	0	5	6	Nil
9		Elective-1	PE	3	0	0	0	3	3	Nil
10		Elective-2	PE	3	0	0	0	3	3	Nil
11		Elective-3	PE	3	0	0	0	3	3	Nil
12		Elective-4	PE	3	0	0	0	3	3	Nil
13	22IE5149	Seminar	PR	0	0	4	0	2	4	Nil
14	22IE5250	Term Paper	PR	0	0	4	0	2	4	Nil
15	22IE6150	Dissertation	PR	0	0	36	0	18	36	Nil
16	22IE6250	Dissertation	PR	0	0	36	0	18	36	Nil
Grand Total Credits								**84**		
Elective – 1										
1	22ME51I1	Precision and Quality Engineering	PE-1	3	0	0	0	3	3	Nil
2	22ME51I2	Advanced Mechanisms & Manipulator Kinematics	PE-1	3	0	0	0	3	3	Nil
3	22ME51I3	Concurrent Engineering	PE-1	3	0	0	0	3	3	Nil
Elective – 2										
4	22ME51J1	Design of Pressure Vessels and Plates	PE-2	3	0	0	0	3	3	Nil
5	22ME51J2	Tribological System Design	PE-2	3	0	0	0	3	3	Nil
6	22ME51J3	Product Design and Development	PE-2	3	0	0	0	3	3	Nil
Elective – 3										
7	22ME52K1	Mechanics of Composite Materials	PE-3	3	0	0	0	3	3	Nil
8	22ME52K2	Machine Tool Design	PE-3	3	0	0	0	3	3	Nil
9	22ME52K3	Fracture Mechanics	PE-3	3	0	0	0	3	3	Nil
Elective – 4										
10	22ME52L1	Engineering Noise & Control	PE-4	3	0	0	0	3	3	Nil
11	22ME52L2	Engineering Failure Analysis and prevention	PE-4	3	0	0	0	3	3	Nil
12	22ME52L3	Design for Manufacturing, Assembly and Environment	PE-4	3	0	0	0	3	3	Nil

Name of the Program: B.Arch										
Sl No	**Course Code**	**Course Title**	**Category**	**L**	**T**	**P**	**S**	**Cr**	**CH**	**Pre-requisite**
1	22AR1101	Theory of Architecture	PC	3	0	0	0	3	3	Nil
2	22AR1102	History of Architecture - I	PC	3	0	0	0	3	3	Nil
3	22AR1152	Architectural Drawing - I	PC	0	0	6	0	3	6	Nil
4	22AR1153	Architectural Design Studio – 1 (Basic Design)	PC	0	8	0	0	12	8	Nil
5	22AR1205	History of Architecture - II	PC	3	0	0	0	3	3	Nil
6	22AR1254	Model Making Workshop	PC	0	0	4	0	2	4	Nil
7	22AR1256	Architectural Drawing - II	PC	0	0	4	0	2	4	Nil
8	22AR1257	Architectural Design Studio -II	PC	0	8	0	0	12	8	22AR1153
9	22AR2108	History of Architecture - III	PC	3	0	0	0	3	3	Nil
10	22AR2138	Architectural Design Studio -III	PC	0	8	0	0	12	8	22AR1257
11	22AR2212	Site Analysis and Planning	PC	2	0	0	0	2	2	Nil
12	22AR2241	Architectural Design Studio -IV	PC	0	8	0	0	12	8	22AR2138
13	22AR2213	Contemporary Indian Architecture	PC	2	0	0	0	2	2	Nil
14	22AR3144	Architectural Design Studio -V	PC	0	8	0	0	12	8	22AR2241
15	22AR3116	Contemporary Western Architecture	PC	2	0	0	0	2	2	Nil
16	22AR3218	Specification, Estimation and Costing	PC	3	0	0	0	3	3	Nil
17	22AR3220	Human Settlements and Planning	PC	2	0	0	0	2	2	Nil
18	22AR3247	Architectural Design Studio -VI	PC	0	8	0	0	12	8	22AR3144
19	22AR4150	Architectural Design Studio -VII	PC	0	10	0	0	15	10	22AR3247
20	22AR4253	Urban Design Studio	PC	0	8	0	0	12	8	22AR4150
21	22AR5255	Architectural Thesis	PC	0	12	0	0	18	12	22AR5154
21	22UC0009	Ecology & Environment	BS&AE	2	0	0	0	2	2	Nil
22	22AR1103	Building Materials - I	BS&AE	2	0	0	0	2	2	Nil
23	22AR1204	Mechanics of Structures - I	BS&AE	3	0	0	0	3	3	Nil
24	22AR1206	Building Materials - II	BS&AE	2	0	0	0	2	2	Nil
25	22AR2107	Mechanics of Structures - II	BS&AE	3	0	0	0	3	3	Nil
26	22AR2137	Building Construction - I	BS&AE	0	4	0	0	6	4	Nil
27	22AR2135	Surveying and Levelling	BS&AE	0	0	4	0	2	4	Nil
28	22AR2109	Climate Responsive Architecture	BS&AE	3	0	0	0	3	3	Nil
29	22AR2210	Design of Structures - I	BS&AE	3	0	0	0	3	3	Nil
30	22AR2211	Building Services - I	BS&AE	3	0	0	0	3	3	Nil
31	22AR2240	Building Construction - II	BS&AE	0	4	0	0	6	4	Nil
32	22AR3114	Design of Structures -II	BS&AE	3	0	0	0	3	3	Nil
33	22AR3115	Building Services - II	BS&AE	3	0	0	0	3	3	Nil
34	22AR3143	Building Construction - III	BS&AE	0	4	0	0	6	4	Nil
35	22AR3219	Building Services - III	BS&AE	3	0	0	0	3	3	Nil
36	22AR3246	Building Construction - IV	BS&AE	0	4	0	0	6	4	Nil
37	22AR4123	Building Services - IV	BS&AE	3	0	0	0	3	3	Nil
38	22AR4148	Working Drawing - I	BS&AE	0	0	4	0	2	4	Nil
39	22AR4251	Working Drawing - II	BS&AE	0	0	4	0	2	4	Nil
40	22AR3118A	Interior Design Studio	PE	0	0	4	0	2	4	Nil
41	22AR3118B	Furniture Design Studio	PE							
42	22AR3117A	Vernacular Architecture	PE	2	0	0	0	2	2	Nil
43	22AR3117B	Sustainable Architecture - I	PE							
44	22AR3222A	Landscape Design Studio	PE	0	0	4	0	2	4	Nil
45	22AR3222B	Modular Construction Studio	PE							
46	22AR3221A	Appropriate Construction Technologies	PE	2	0	0	0	2	2	Nil
47	22AR3221B	Sustainable Architecture - II	PE							
48	22AR4125A	Advanced Building Techniques	PE	0	0	4	0	2	4	Nil
49	22AR4125B	Architecture Photography	PE							
50	22AR4126A	Housing	PE	2	0	0	0	2	2	Nil
51	22AR4126B	Intelligent Buildings	PE							
52	22AR4124A	Architectural Conservation	PE	3	0	0	0	3	3	Nil
53	22AR4124B	Set Design	PE							
54	22AR4228A	Dissertation	PE	0	4	0	0	6	4	Nil
55	22AR4228B	Thesis Seminar	PE							

56	22AR4229A	Urban Design	PE	2	0	0	0	2	2	Nil
57	22AR4229B	Transportation Planning	PE							
58	22AR4227A	Behavioral Architecture	PE	3	0	0	0	3	3	Nil
59	22AR4227B	Disaster Mitigation and Management	PE							
60	22AR4226	Building Construction and Management	PAECC	3	0	0	0	3	3	Nil
61	22AR5228	Architecture Professional Practice	PAECC	3	0	0	0	3	3	Nil
62	22AR5154	Practical Training / Internship	PAECC	0	0	40	0	20	40	22AR4253
63	22AR1151	Art and Visual Graphic Studio	SEC	0	0	6	0	3	6	Nil
64	22AR2136	Computer Studio - I	SEC	0	0	4	0	2	4	Nil
65	22AR2239	Computer Studio - II	SEC	0	0	4	0	2	4	Nil
66	22UC1101	Integrated Professional English	SEC	0	0	4	0	2	4	Nil
67	22UC1202	English Proficiency	SEC	0	0	4	0	2	4	Nil
69	21UC2103	Design Thinking and Innovation	OE	1	0	0	4	2	4	Nil
70	22MB52C3	Human Resource Management	OE	3	0	0	0	3	3	Nil
71	22BB32C3	Innovation and Entrepreneurship	OE							Nil
Total Credits								**278**		

Name of the Program: BCA										
Sl No	**Course Code**	**Course Title**	**Category**	**L**	**T**	**P**	**S**	**Cr**	**CH**	**Pre-requisite**
1	22UC1101	Integrated Professional English	HSS	0	0	4	0	2	4	NIL
2	22UC1202	English Proficiency	HSS	0	0	4	0	2	4	NIL
3	22UC2103	Design Thinking & Innovation	HSS	0	0	4	0	2	4	NIL
4	22UC2105	Essential Life Skills	HSS	0	0	4	0	2	4	NIL
5	22UC0010	Universal Human Values & Professional Ethics	HSS	2	0	0	0	2	2	NIL
6		Foreign Language Elective	HSS	2	0	0	0	2	2	NIL
7	22UC2204	Corporate Readiness Skills	HSS	0	0	4	0	2	4	NIL
8	22CA1104	Mathematics for Computer Science	BS	3	1	0	0	4	4	NIL
9	22UC0009	Ecology & Environment	BS	2	0	0	0	2	2	NIL
10	22CA1101	Problem Solving through Programming	PC	3	0	2	4	5	9	NIL
11	22CA1102	Computer Organization & Architecture	PC	3	1	0	0	4	4	NIL
12	22CA1103	Essentials of Information Technology	PC	3	0	2	0	4	5	NIL
13	22CA1205	Operating System	PC	3	1	0	0	4	4	NIL
14	22CA1206	Data Structures	PC	3	0	2	0	4	5	NIL
15	22CA1207	Object Oriented Programming	PC	3	0	2	4	5	9	NIL
16	22CA1210	Database Management Systems	PC	3	0	2	4	5	9	NIL
17	22CA1209	Web and Social Media Technologies	PC	0	0	4	0	2	4	NIL
18	22CA2109	Software Engineering	PC	2	1	0	0	3	3	NIL
19	22CA2110	Mobile Application Development	PC	3	0	2	4	5	9	NIL
20	22CA2111	Computer Networks	PC	3	0	0	0	3	3	NIL
21	22CA2112	Web Development using Python	PC	3	0	2	4	5	9	NIL
22	22CA2213	Java Full Stack Development	PC	3	0	2	4	5	9	NIL
23	22CA2214	Object Oriented Analysis & Design	PC	3	0	2	4	5	9	NIL
24	22CA21C1	Cloud Architecture	PE	2	0	2	0	3	4	NIL
25	22CA21D1	Data Warehousing & Mining	PE	2	0	2	0	3	4	NIL
26	22CA21A1	Artificial Intelligence	PE	2	0	2	0	3	4	NIL
27	22CA21S1	Fundamentals of Cyber Security and Ethical Hacking	PE	2	0	2	0	3	4	NIL
28	22CA22C2	Cloud Information Security	PE	2	0	2	0	3	4	NIL
29	22CA22D2	Statistics for Data Science	PE	2	0	2	0	3	4	NIL
30	22CA22A2	Data Mining in Business Intelligence	PE	2	0	2	0	3	4	NIL
31	22CA22S2	Cyber Forensics	PE	2	0	2	0	3	4	NIL
32	22CA31C3	Ethical Hacking	PE	2	0	2	0	3	4	NIL
33	22CA31D3	Machine Learning	PE	2	0	2	0	3	4	NIL
34	22CA31S3	Malware Analysis	PE	2	0	2	0	3	4	NIL
35	22CA32C4	Cloud Web Services	PE	2	0	2	0	3	4	NIL
36	22CA32D4	Big Data Analytics	PE	2	0	2	0	3	4	NIL
37	22CA32A4	Robotic Process Automation	PE	2	0	2	0	3	4	NIL
38	22CA32S4	E-Governance	PE	2	0	2	0	3	4	NIL
39	22CA32C5	Design and Development of Cloud Application	PE	2	0	2	4	4	8	NIL

40	22CA32D5	Data Visualization	PE	2	0	2	4	4	8	NIL
41	22CA32A5	Deep Learning	PE	2	0	2	4	4	8	NIL
42	22CA32S5	Cloud Security	PE	2	0	2	4	4	8	NIL
43		Open Elective - 1	OE	3	0	3	0	3	3	Nil
44		Open Elective - 2	OE	3	0	3	0	3	3	Nil
45		Open Elective - 3	OE	3	0	3	0	3	3	Nil
55	22CA21N0	Internship-1	PR	0	0	4	0	2	4	NIL
56	22CA22E1	Term Paper	PR	2	0	0	0	2	2	NIL
57	22CA31N1	Internship-2	PR	0	0	4	0	2	4	NIL
58	22CA32E2	Major Project	PR	0	0	20	0	10	20	NIL
Total Credits								**120**		

Name of the Program: Bachelor of Business Adminstration (BBA)										
S.No	**course code**	**course title**	**category**	**L**	**T**	**P**	**S**	**Cr**	**CH**	**Pre-requisite**
1	22UC1101	Integrated professional English	HSS	0	0	4	0	2	4	NIL
2	22UC009	Ecology & Environment	HSS	2	0	0	0	2	2	NIL
3	22UC1202	English Proficiency	HSS	0	0	4	0	2	4	NIL
4	22BB11K1	Foreign Language	HSS	2	0	2	0	3	4	NIL
5	22UC2103	Essential Skills for Employability	HSS	0	0	4	0	2	4	NIL
6	21UC1203	DesignThinking and Innovation	HSS	0	0	4	0	2	4	NIL
7	21UC2204	Corporate Readiness Skills	HSS	0	0	4	0	2	2	NIL
8	22HS115	Soft Skills for Managers	HSS	2	0	2	0	3	4	NIL
9	22BS114	Business Mathematics	BS	3	1	0	0	4	4	NIL
10	22BS115	Business Statistics	BS	3	1	0	0	4	4	NIL
11	22BB11C2	Business Environment	PC	3	0	0	0	3	3	NIL
12	22BB11C3	Business Economics	PC	3	0	0	0	3	3	NIL
13	22BB11C4	Perspectives of Management	PC	3	0	0	0	3	3	NIL
14	22BB11C5	IT for Business Managers	PC	2	0	2	0	3	3	NIL
15	22BB12C1	Introduction to Financial Accounting	PC	3	1	0	0	4	4	NIL
16	22BB12C3	Organizational Behaviour	PC	3	0	0	0	3	3	NIL
17	22BB22C2	Management Information Systems	PC	3	0	0	0	3	3	NIL
18	22BB21C2	Marketing Management	PC	3	0	0	0	3	3	NIL
19	22BB21C1	Management Accountancy	PC	3	1	0	0	4	4	NIL
20	22BB21C3	Human Resource Management	PC	3	0	0	0	3	3	NIL
21	22BB21C4	Business Research Methods	PC	3	0	0	0	3	3	NIL
22	22BB21C5	Macro Economics	PC	3	0	0	0	3	3	NIL
23	22BB21C6	Fundamentals of LSCM	PC	3	0	0	0	3	3	NIL
24	22BB22C0	Cost Accountancy	PC	3	1	0	0	4	4	NIL
25	22BB22C1	Production and Operations Management	PC	3	1	0	0	4	4	NIL
26	22BB22C3	Business Law	PC	3	0	0	0	3	3	NIL
27	22BB22C4	Financial Management	PC	3	1	0	0	4	4	NIL
28	22BB22C5	Business Model Generation	PC	3	0	0	0	3	3	NIL
29	22BB22C7	Dynamics of Capital Markets	PC	3	0	0	0	3	3	NIL
30	22BB31C0	Business analytics	PC	2	0	2	0	3	4	NIL
31	22BB31C2	Fundamentals of Digital Marketing	PC	3	0	0	0	3	3	NIL
32	22BB31C7	Research Paper Writing	PC	1	0	0	8	3	9	NIL
33	22BB32C0	Entrepreneurship	PC	3	0	0	0	3	3	NIL
34	22BB32C4	Strategic Management	PC	3	0	0	0	3	3	NIL
35	22BB32C2	Enterprise Resource Planning	PC	3	0	0	0	3	3	NIL
36	22BB32C3	Income Tax & GST	PC	3	0	0	0	3	3	NIL
37	22BB31M0	Consumer Behaviour	PE	3	0	0	0	3	3	NIL
38	22BB31F0	Banking & Insurance Management	PE	3	0	0	0	3	3	NIL
39	22BB31H0	Personal Effectiveness and Self-Leadership	PE	3	0	0	0	3	3	NIL
40	22BB31D0	E-Commerce and Strategy	PE	3	0	0	0	3	3	NIL
41	22BB31E0	Introduction to Software Engineering	PE	3	0	0	0	3	3	NIL
42	22BB31M1	Product and Brand Management	PE	3	0	0	0	3	3	NIL
43	22BB31F1	Investment Management	PE	3	0	0	0	3	3	NIL
44	22BB31H1	Dynamics of industrial relations	PE	3	0	0	0	3	3	NIL

45	22BB31D1	Search Engine Optimisation	PE	3	0	0	0	3	3	NIL
46	22BB31E1	ERP Systems Design and Implementation	PE	3	0	0	0	3	3	NIL
47	22BB31M2	Advertising and Sales Promotion	PE	3	0	0	0	3	3	NIL
48	22BB31F2	Financial Services	PE	3	0	0	0	3	3	NIL
49	22BB31H2	Human Resource Development	PE	3	0	0	0	3	3	NIL
50	22BB31D2	Social Media Management	PE	3	0	0	0	3	3	NIL
51	22BB31E2	ERP System Administration	PE	3	0	0	0	3	3	NIL
52	22BB31M3	Customer Relationship Management	PE	3	0	0	0	3	3	NIL
53	22BB31F3	Financial Markets	PE	3	0	0	0	3	3	NIL
54	22BB31H3	Performance Management & Reward System	PE	3	0	0	0	3	3	NIL
55	22BB31L3	Digital Branding and Planning	PE	3	0	0	0	3	3	NIL
56	22BB31B3	CRM in ERP Environment	PE	3	0	0	0	3	3	NIL
57	22BB31M4	Services Marketing	PE	3	0	0	0	3	4	NIL
58	22BB31F4	Managing personal finance	PE	3	0	0	0	3	4	NIL
59	22BB31H4	Labour Legislation	PE	3	0	0	0	3	4	NIL
60	22BB31D4	Web Analytics and Affiliate Marketing	PE	3	0	0	0	3	4	NIL
61	22BB31E4	ERP in MSMEs	PE	3	0	0	0	3	4	NIL
62	22BB31M5	RURAL MARKETING	PE	3	0	0	0	3	4	NIL
63	22BB31F5	Financial Derivatives	PE	3	0	0	0	3	4	NIL
64	22BB31H5	Training & Development	PE	3	0	0	0	3	4	NIL
65	22BB31D5	DigitaL Marketing Strategy	PE	3	0	0	0	3	4	NIL
66	22BB31E5	Information Systems	PE	3	0	0	0	3	3	NIL
67	22BB10P0	Summer Internship Programme - 1	PRI	0	0	0	24	6	24	NIL
68	22BB20P1	Summer Internship Programme - 2	PRI	0	0	0	24	6	24	NIL
69	22BB30P2	Summer Internship Programme - 3	PRI	0	0	0	24	6	24	NIL
		Total Credits						**145**		

Name of the Program: B.Com										
Sl No	**Course Code**	**Course Title**	**Category**	**L**	**T**	**P**	**S**	**Cr**	**CH**	**Pre-requisite**
1	22CM1101	Business Technology	PC	3	2	0	0	5	5	Nil
2	22CM1102	Fundamentals of Cost Accounting	PC	3	2	0	0	5	5	Nil
3	22CM1103	Principles of Management	PC	3	0	0	0	3	3	Nil
4	22CM1104	Basics of Excel	PC	2	0	2	0	3	4	Nil
5	22CM1211	Introduction to income tax	PC	3	2	0	0	5	5	Nil
6	22CM1212	Corporate and Business law	PC	4	0	0	0	4	4	Nil
7	22CM1213	Advanced Excel	PC	2	0	2	0	3	4	22CM1104
8	22CM2121	Introduction to Corporate Accounting	PC	3	2	0	0	5	5	Nil
9	22CM2122	Banking Law and Practice	PC	3	0	0	0	3	3	Nil
10	22CM2231	Advanced Corporate Accounting	PC	3	2	0	0	5	5	22CM2121
11	22CM2232	Corporate Financial Reportinng	PC	3	0	0	0	3	3	Nil
12	22CM2233	Introduction to Business Analytics	PC	2	0	2	0	3	4	Nil
13	22CM3141	Goods and Service Tax	PC	3	2	0	0	5	5	Nil
14	22CM3142	Business Strategy	PC	3	0	0	0	3	3	Nil
15	22CM3143	Financial Analytics	PC	2	0	2	0	3	4	Nil
16	22CM3144	Security Analysis & Portfolio Management	PC	3	2	0	0	5	5	Nil
17	22CM2123	Business Mathematics & Statistics	BS	3	2	0	0	5	5	Nil
18	22UC0009	Ecology & Environment	BS	2	0	0	0	2	2	Nil
19	22UC1101	Integrated Professional English	HSS	0	0	4	0	2	4	Nil
20	22UC1202	English Proficiency	HSS	0	0	4	0	2	4	Nil
21	22UC0010	Universal Human values and professional Ethics	HSS	2	0	0	0	2	2	Nil
22	22UC2103	Essential Skills for Employability	HSS	0	0	4	0	2	4	Nil
23	22FL3103	Foreign Language (German)	HSS	2	0	0	0	2	2	Nil
24	22CM1105	Principles of Accounting (B.Com(H))	PE 1	3	2	0	0	5	5	Nil
25	22CM1106	Financial Accounting (ACCA)	PE 1	3	2	0	0	5	5	Nil
26	22CM1107	International Financial Accounting & Reporting - I (CPA)	PE 1	3	2	0	0	5	5	Nil
27	22CM1214	Advanced Cost Accounting (B.com(H))	PE 2	3	2	0	0	5	5	22CM1102
28	22ACCAF7	Financial Reporting (ACCA)	PE 2	3	2	0	0	5	5	Nil

29	22CM1215	International Financial Accounting&Reporting - II (CPA)	PE 2	3	2	0	0	5	5	Nil
30	22CM2124	Business Valuation (B.Com(H) & CPA)	PE 3	3	2	0	0	5	5	Nil
31	22ACCAF9	Financial Management (ACCA)	PE 3	3	2	0	0	5	5	Nil
32	22CM2125	Cost and Management Accounting (B.Com(H))	PE 4	3	2	0	0	5	5	Nil
33	22CM2126	Management Accounting (ACCA)	PE 4	3	2	0	0	5	5	Nil
34	22CM2127	Internationa finance (CPA)	PE 4	3	2	0	0	5	5	Nil
35	22CM2234	Project Management ((B.Com(H) & CPA)	PE 5	3	2	0	0	5	5	Nil
36	22CM2235	Peroformance Management (ACCA)	PE 5	3	2	0	0	5	5	Nil
37	22CM2236	Assessement of Direct Taxes (B.Com(H))	PE 6	3	2	0	0	5	5	22CM1211
38	22CM2237	Taxation (ACCA)	PE 6	3	2	0	0	5	5	Nil
39	22CM2238	International Taxation(CPA)	PE 6	3	2	0	0	5	5	Nil
40	22CM3145	Principles of Auditing (B.com(H))	PE 7	4	0	0	0	4	4	Nil
41	22ACCAF8	Audit and Assurance (ACCA)	PE 7	4	0	0	0	4	4	Nil
42	22CM3146	International Auditing (CPA)	PE 7	4	0	0	0	4	4	Nil
43	22ACCAP1	Strategic Business Leader (ACCA)	PE 8	3	2	0	0	5	5	Nil
44	22ACCAP2	Strategic Business Reporting (ACCA)	PE 8	3	2	0	0	5	5	Nil
45	22ACCAP4	Advanced Financial Management(ACCA)	PE 8	3	2	0	0	5	5	22ACCAF9
46	22ACCAP7	Advanced Audit & Assurance (ACCA)	PE 8	4	0	0	0	4	4	22ACCAF8
47	22PT3230	Industrial Training (B.Com(H) &CPA)	PE 8	0	0	38	0	19	38	Nil
48		Open Elective - 1	OE	3	0	3	0	3	3	Nil
49		Open Elective - 2	OE	3	0	3	0	3	3	Nil
50		Open Elective - 3	OE	3	0	3	0	3	3	Nil
51	22PT1101	Practice School / SIP	Skill	0	0	12	0	6	12	Nil
52	22PT2101	Practice School / SIP	Skill	0	0	12	0	6	12	Nil
Total Credits								**140**		

Name of the Program: B. Pharmacy										
Sl No	**Course Code**	**Course Title**	**Category**	**L**	**T**	**P**	**S**	**Cr**	**CH**	**Pre-requisite**
1	22PY1105T	Communication skills (Theory)	HAS	2	0	0	0	2	2	Nil
2	22PY1105P	Communication skills (Practical)	HAS	0	0	2	0	1	2	Nil
3	22UC1101	Integrated Professional English	HAS	0	0	4	0	2	4	Nil
4	22UC1202	English Proficiency	HAS	0	0	4	0	2	4	Nil
5	22UC1203	Design Thinking and Innovation	HAS	1	0	0	4	2	4	Nil
6	22UC0010	Universal Human Values and Professional Ethics	HAS	2	0	0	0	2	2	Nil
7	22PY1106RBT	Remedial Biology (Theory)	BSC	2	0	0	0	2	2	Nil
8	22PY1106RMT	Remedial Mathematics (Theory)	BSC	2	0	0	0	2	2	Nil
9	22PY1106RBP	Remedial Biology (Practical)	BSC	0	0	2	0	1	2	Nil
10	22PY1211T	Computer Applications in Pharmacy (Theory)	BSC	3	0	0	0	3	3	Nil
11	22PY1211P	Computer Applications in Pharmacy (Practical)	BSC	0	0	2	0	1	2	Nil
12	22PY1212T	Environmental sciences (Theory)	BSC	3	0	0	0	3	3	Nil
13	22PY1101T	Human Anatomy and Physiology I (Theory)	PCC	3	1	0	0	4	4	Nil
14	22PY1101P	Human Anatomy and Physiology I (Practical)	PCC	0	0	4	0	2	4	Nil
15	22PY1102T	Pharmaceutical Analysis I (Theory)	PCC	3	1	0	0	4	4	Nil
16	22PY1102P	Pharmaceutical Analysis I (Practical)	PCC	0	0	4	0	2	4	Nil
17	22PY1103T	Pharmaceutics (Theory)	PCC	3	1	0	0	4	4	Nil
18	22PY1103P	Pharmaceutics (Practical)	PCC	0	0	4	0	2	4	Nil
19	22PY1104T	Pharmaceutical Inorganic Chemistry (Theory)	PCC	3	1	0	0	4	4	Nil
20	22PY1104P	Pharmaceutical Inorganic Chemistry (Practical)	PCC	0	0	4	0	2	4	Nil
21	22PY1207T	Human Anatomy and Physiology II (Theory)	PCC	3	1	0	0	4	4	Nil
22	22PY1207P	Human Anatomy and Physiology II (Practical)	PCC	0	0	4	0	2	4	Nil
23	22PY1208T	Pharmaceutical Organic Chemistry I (Theory)	PCC	3	1	0	0	4	4	Nil
24	22PY1208P	Pharmaceutical Organic Chemistry I (Practical)	PCC	0	0	4	0	2	4	Nil
25	22PY1209T	Biochemistry (Theory)	PCC	3	1	0	0	4	4	Nil
26	22PY1209P	Biochemistry (Practical)	PCC	0	0	4	0	2	4	Nil
27	22PY1210T	Pathophysiology (Theory)	PCC	3	1	0	0	4	4	Nil
28	22PY2113T	Pharmaceutical Organic Chemistry II (Theory)	PCC	3	1	0	0	4	4	Nil
29	22PY2113P	Pharmaceutical Organic Chemistry II (Practical)	PCC	0	0	4	0	2	4	Nil

30	22PY2114T	Physical Pharmaceutics I (Theory)	PCC	3	1	0	0	4	4	Nil
31	22PY2114P	Physical Pharmaceutics I (Practical)	PCC	0	0	4	0	2	4	Nil
32	22PY2115T	Pharmaceutical Microbiology (Theory)	PCC	3	1	0	0	4	4	Nil
33	22PY2115P	Pharmaceutical Microbiology (Practical)	PCC	0	0	4	0	2	4	Nil
34	22PY2116T	Pharmaceutical Engineering (Theory)	PCC	3	1	0	0	4	4	Nil
35	22PY2116P	Pharmaceutical Engineering (Practical)	PCC	0	0	4	0	2	4	Nil
36	22PY2217T	Pharmaceutical Organic Chemistry III (Theory)	PCC	3	1	0	0	4	4	Nil
37	22PY2218T	Medicinal Chemistry I (Theory)	PCC	3	1	0	0	4	4	Nil
38	22PY2218P	Medicinal Chemistry I (Practical)	PCC	0	0	4	0	2	4	Nil
39	22PY2219T	Physical Pharmaceutics II (Theory)	PCC	3	1	0	0	4	4	Nil
40	22PY2219P	Physical Pharmaceutics II (Practical)	PCC	0	0	4	0	2	4	Nil
41	22PY2220T	Pharmacology I (Theory)	PCC	3	1	0	0	4	4	Nil
42	22PY2220P	Pharmacology I (Practical)	PCC	0	0	4	0	2	4	Nil
43	22PY2221T	Pharmacognosy and Phytochemistry I (Theory)	PCC	3	1	0	0	4	4	Nil
44	22PY2221P	Pharmacognosy and Phytochemistry I (Practical)	PCC	0	0	4	0	2	4	Nil
45	22PY3122T	Medicinal Chemistry II (Theory)	PCC	3	1	0	0	4	4	Nil
46	22PY3123T	Industrial Pharmacy I (Theory)	PCC	3	1	0	0	4	4	Nil
47	22PY3123P	Industrial Pharmacy I (Practical)	PCC	0	0	4	0	2	4	Nil
48	22PY3124T	Pharmacology II (Theory)	PCC	3	1	0	0	4	4	Nil
49	22PY3124P	Pharmacology II (Practical)	PCC	0	0	4	0	2	4	Nil
50	22PY3125T	Pharmacognosy and Phytochemistry II (Theory)	PCC	3	1	0	0	4	4	Nil
51	22PY3125P	Pharmacognosy and Phytochemistry II (Practical)	PCC	0	0	4	0	2	4	Nil
52	22PY3126T	Pharmaceutical Jurisprudence (Theory)	PCC	3	1	0	0	4	4	Nil
53	22PY3227T	Medicinal Chemistry III (Theory)	PCC	3	1	0	0	4	4	Nil
54	22PY3227P	Medicinal chemistry III (Practical)	PCC	0	0	4	0	2	4	Nil
55	22PY3228T	Pharmacology III (Theory)	PCC	3	1	0	0	4	4	Nil
56	22PY3228P	Pharmacology III (Practical)	PCC	0	0	4	0	2	4	Nil
57	22PY3229T	Herbal Drug Technology (Theory)	PCC	3	1	0	0	4	4	Nil
58	22PY3229P	Herbal Drug Technology (Practical)	PCC	0	0	4	0	2	4	Nil
59	22PY3230T	Biopharmaceutics and Pharmacokinetics (Theory)	PCC	3	1	0	0	4	4	Nil
60	22PY3231T	Pharmaceutical Biotechnology (Theory)	PCC	3	1	0	0	4	4	Nil
61	22PY3232T	Quality Assurance (Theory)	PCC	3	1	0	0	4	4	Nil
62	22PY4133T	Instrumental Methods of Analysis (Theory)	PCC	3	1	0	0	4	4	Nil
63	22PY4133P	Instrumental Methods of Analysis (Practical)	PCC	0	0	4	0	2	4	Nil
64	22PY4134T	Industrial Pharmacy II (Theory)	PCC	3	1	0	0	4	4	Nil
65	22PY4135T	Pharmacy Practice (Theory)	PCC	3	1	0	0	4	4	Nil
66	22PY4136T	Novel Drug Delivery System (Theory)	PCC	3	1	0	0	4	4	Nil
67	22PY4137PS	Practice School	PCC	0	0	12	0	6	12	Nil
68	22PY4238T	Biostatistics and Research Methodology (Theory)	PCC	3	1	0	0	4	4	Nil
69	22PY4239T	Social and Preventive Pharmacy (Theory)	PCC	3	1	0	0	4	4	Nil
70	22PY4240ET	Pharma Marketing Management	PE	3	1	0	0	4	4	Nil
71	22PY4242ET	Pharmacovigilance	PE	3	1	0	0	4	4	Nil
72	22PY4243ET	Quality Control and Standardization of Herbals	PE	3	1	0	0	4	4	Nil
73	22PY4246ET	Cosmetic Science	PE	3	1	0	0	4	4	Nil
74	22PY4248ET	Advanced Instrumentation Techniques	PE	3	1	0	0	4	4	Nil
75	22PY4241ET	Pharmaceutical Regulatory Science	PE	3	1	0	0	4	4	Nil
76	22PY4244ET	Computer Aided Drug Design	PE	3	1	0	0	4	4	Nil
77	22PY4245ET	Cell and Molecular Biology	PE	3	1	0	0	4	4	Nil
78	22PY4247ET	Experimental Pharmacology	PE	3	1	0	0	4	4	Nil
79	22PY4249ET	Dietary Supplements and Nutraceuticals	PE	3	1	0	0	4	4	Nil
80		Open Elective - 1	OE	3	0	3	0	3	3	Nil
81		Open Elective - 2	OE	3	0	3	0	3	3	Nil
82		Open Elective - 3	OE	3	0	3	0	3	3	Nil
83	22PY4250PW	Project Work	PRI	0	0	12	0	6	12	Nil
84	22PY3123S	Production process for API/Bulk drug/Intermediates	Skill	0	0	0	4	1	4	Nil
85	22PY4133S	Operation of Analytical Instruments	Skill	0	0	0	4	1	4	Nil
		Total Credits	**230/232**							

Name of the Program: Bachelor of Arts										
Sl No	**Course Code**	**Course Title**	**Category**	**L**	**T**	**P**	**S**	**Cr**	**CH**	**Pre-requisite**
1	22UC1101	Integrated Professional English	HSS	0	0	4	0	2	4	NIL
2	22UC0010	Universal Human Values and Professional Ethics	HSS	2	0	0	0	2	2	NIL
3	22UC1202	English Proficiency	HSS	0	0	4	0	2	4	NIL
4	22UC0008	Indian Constitution	HSS	2	0	0	0	0	2	NIL
5	22UC2103	Essential skills for Employability	HSS	0	0	4	0	2	4	NIL
6	22UC3105	Problem Solving Skills-I	HSS	0	0	4	0	2	4	NIL
7	22UC3206	Problem Solving Skills-II	HSS	0	0	4	0	2	4	NIL
8	22UC1203	Design Thinking and Innovation	HSS	0	0	4	0	2	4	NIL
9	22UC2204	Corporate Readiness Skills	HSS	0	0	4	0	2	4	NIL
10	22BA1101	Ancient Indian History	PC	4	0	0	0	4	4	NIL
11	22BA1103	Introduction to Public Administration	PC	4	0	0	0	4	4	NIL
12	22BA1201	Medieval Indian History	PC	4	0	0	0	4	4	NIL
13	22BA1203	Administrative Theory	PC	4	0	0	0	4	4	NIL
14	22GN1201	Science and Technology	PC	3	0	0	0	3	3	NIL
15	22BA2101	Indian History & Culture 1526 – 1857	PC	4	0	0	0	4	4	NIL
16	22BA2103	Union Administration	PC	4	0	0	0	4	4	NIL
17	22BA2201	History of Modern India (1858-1947)	PC	4	0	0	0	4	4	NIL
18	22BA2203	State and Local Administration	PC	4	0	0	0	4	4	NIL
19	22GN3101	International Relations	PC	3	0	0	0	3	3	NIL
20	22GN3102	Disaster Management	PC	3	0	0	0	3	3	NIL
21	22GN3103	Internal Security	PC	2	0	0	0	2	2	NIL
22	22GN3202	Social Problems and Programs in India	PC	3	0	0	0	3	3	NIL
23	22UC0009	Ecology and Environment	BS	2	0	0	0	2	2	NIL
24	22GN11T1	Telugu – 1	PE	3	0	0	0	3	3	NIL
25	22GN11H1	Hindi – 1	PE							NIL
26	22BA1102	Physical Geography	PE	4	0	0	0	4	4	NIL
27	22BA1104	Introduction to Microeconomics	PE							NIL
28	22BA1106	Telugu traditional Poetry	PE							NIL
29	22GN12T2	Telugu – 2	PE	3	0	0	0	3	3	NIL
30	22GN12H2	Hindi -2	PE							NIL
31	22BA1202	Human Geography	PE	4	0	0	0	4	4	NIL
32	22BA1204	Introduction to Macroeconomics	PE							NIL
33	22BA1206	Modern Telugu Poetry	PE							NIL
34	22GN21T3	Telugu – 3	PE	3	0	0	0	3	3	NIL
35	22GN21H3	Hindi -3	PE							NIL
36	22BA2102	Physical & Industrial Geography of India	PE	4	0	0	0	4	4	NIL
37	22BA2104	Indian Economy-Problems and Policies	PE							NIL
38	22BA2106	Kavyamu, Prabandha Sataka Litt and Lekha Litrature.	PE							NIL
39	22BA2202	Social Geography of India	PE	4	0	0	0	4	4	NIL
40	22BA2204	Economic Development & Planning	PE							NIL
41	22BA2206	Telugu Novel, Drama & Letters and translation A Special	PE							NIL
42	22BA3101	History of Modern World	PE	4	0	0	0	4	4	NIL
43	22BA3102	History of East Asia (From 19th Century A.D. to 1950 A.D	PE							NIL
44	22BA3103	Contemporary Issues in Geography	PE	4	0	0	0	4	4	NIL
45	22BA3104	Remote Sensing and Geographic Information System	PE							NIL
46	22BA3107	History of Telugu Language I	PE							NIL
47	22BA3108	International Economic Order	PE							NIL
48	22BA3109	Environmental Economics	PE							NIL
49	22BA3110	History of Telugu Traditional Literature I	PE							NIL
50	22BA3105	Rural and Urban Goverance	PE	4	0	0	0	4	4	NIL
51	22BA3106	E-Governance	PE							NIL
52	22BA3201	History and Culture of Andhra Pradesh	PE	4	0	0	0	4	4	NIL
53	22BA3202	Archeology	PE							NIL
54	22BA3203	Regional Planning and Development	PE	4	0	0	0	4	4	NIL
55	22BA3204	Environmental Geography	PE							NIL
56	22BA3208	Economics of Health and Education	PE	4	0	0	0	4	4	NIL

57	22BA3209	Public Finance	PE	4	0	0	0	4	4	NIL
58	22BA3210	Literacy Criticism	PE							NIL
59	22BA3211	History of Traditional Telugu Literature II	PE							NIL
60	22BA3205	Indian Polity and Governance	PE	4	0	0	0	4	4	NIL
61	22BA3206	Public Policy	PE							NIL
62	22GN3201	Project Work	PR	0	0	12	0	6	12	NIL
63	22GN2101	Computer Skills	SK	2	0	2	0	3	4	NIL
64	22GN2207	Statistics with R Programme	SK	2	0	2	0	3	4	NIL
Total Credits								**125**		

Name of the Program: B.Sc.(Hons) Agriculture										
Sl No	**Course Code**	**Course Title**	**Category**	**L**	**T**	**P**	**S**	**Cr**	**CH**	**Pre-requisite**
1	22ENGL101	Comprehension and Communication Skills in English	HSS	1	0	2	0	2	3	Fundamental course
2	22AEXT190	Human Values and Ethics (non gradial)	HSS	1	0	0	0	1	1	Fundamental course
3	22COCA100	NSS/NCC/Physical Education and Yoga Practices	HSS	0	0	4	0	2	4	Fundamental course
4	22AEXT391	Communication Skills and PersonalityDevelopment	HSS	1	0	2	0	2	3	Fundamental course
5	22AGRO101	Agriculture Heritage	PC	1	0	0	0	1	1	Fundamental course
6	22AGRO102	Fundamentals of Agronomy	PC	2	0	2	0	3	4	Fundamental course
7	22BICM101	Fundamentals of Plant Biochemistry and Biotechnology	PC	2	0	2	0	3	4	Fundamental course
8	22SSAC121	Fundamentals of Soil Science	PC	2	0	2	0	3	4	Fundamental course
9	22AECO141	Fundamentals of Economics	PC	3	0	0	0	3	3	Fundamental course
10	22HORT181	Fundamentals of Horticulture	PC	1	0	2	0	2	3	Fundamental course
11	22AEXT191	Rural Sociology and Educational Psychology	PC	1	0	2	0	2	3	Fundamental course
12	22AMBE101	Agricultural Microbiology	PC	1	0	2	0	2	3	Fundamental course
13	22AGRO103	Introductory Agrometeorology and Climate Change	PC	1	0	2	0	2	3	Fundamental course
14	22AGRO104	Introduction to Forestry	PC	1	0	2	0	2	3	Fundamental course
15	22GPBR111	Fundamentals of Genetics	PC	2	0	2	0	3	4	Fundamental course
16	22ENTO131	Fundamentals of Entomology I(Insect Morphology and Taxonomy)	PC	2	0	2	0	3	4	Fundamental course
17	22AENG151	Soil and Water Conservation Engineering	PC	1	0	2	0	2	3	Fundamental course
18	22CPHY162	Fundamentals of Crop Physiology	PC	2	0	2	0	3	4	Fundamental course
19	22PATH171	Fundamentals of Plant Pathology I (Plant Pathogens - An Introduction)	PC	2	0	2	0	3	4	Fundamental course
20	22HORT182	Production Technology of Fruits and Plantation Crops	PC	1	0	2	0	2	3	Fundamental course
21	22AGRO201	Crop Production Technology - I *(Cereals, Millets and Pulses)*	PC	2	0	2	0	3	4	22AGRO101
22	22GPBR211	Fundamentals of Plant Breeding	PC	2	0	2	0	3	4	22AGRO101

23	22ENTO231	Fundamentals of Entomology II (Insect Ecology and Concepts of IPM)	PC	1	0	2	0	2	3	Fundamental course
24	22AECO241	Agricultural Finance and Co-operation	PC	1	0	2	0	2	3	22ENTO131
25	22AENG251	Farm Machinery and Power	PC	1	0	2	0	2	3	22AECO141
26	22CPHY261	Eco-physiology	PC	1	0	2	0	2	3	Fundamental course
27	22PATH271	Fundamentals of Plant PathologyII(PlantPathologyPrinciples)	PC	1	0	2	0	2	3	22CPHY162
28	22HORT281	Production Technology for Vegetables and Spices	PC	1	0	2	0	2	3	22PATH171
29	22AEXT291	Fundamentals of Agricultural Extension	PC	2	0	2	0	3	4	22HORT181
30	22CPHY161	Introductory biology (Remedial)	PC	1	0	2	0	2	3	Fundamental course
31	22COCA200	Education Tour**	PC	0	0	4	0	2	4	Nil
32	22AGRO202	Crop Production Technology - II(Oilseeds, Fibre, Sugar, Tobacco and Fodder crops)	PC	2	0	2	0	3	4	22AGRO101
33	22AGRO203	Farming Systems and Sustainable Agriculture	PC	1	0	0	0	1	1	22AGRO101
34	22AGRO204	Irrigation Water Management	PC	1	0	2	0	2	3	22AGRO101
35	22SMCA201	Statistical Methods	PC	1	0	2	0	2	3	22CPHY161/ 22SMCA101
36	22LSPM201	Live-stock and Poultry Management	PC	2	0	2	0	3	4	Fundamental course
37	22SSAC221	Manures, Fertilizers and Soil Fertility Management	PC	2	0	2	0	3	4	22SSAC121
38	22AECO242	Agricultural Marketing, Trade and Prices	PC	2	0	2	0	3	4	22AECO141
39	22AENG252	Renewable Energy and Green Technology	PC	1	0	2	0	2	3	22AENG151
40	22HORT282	Production Technology for Ornamental Crops, Medicinal and Aromatic Plants and Landscaping	PC	1	0	2	0	2	3	22HORT181
41	22AEXT292	Entrepreneurship Development and Business Communication	PC	1	0	2	0	2	3	22AEXT291
42	22AGRO301	Geoinformatics and Nanotechnology for Precision Farming	PC	1	0	2	0	2	3	22AGRO101
43	22AGRO302	Practical Crop Production	PC	0	0	2	0	1	2	22AGRO101
44	22BICM300	Principles of Food Science and Nutrition	PC	2	0	0	0	2	2	Fundamental course
45	22GPBR311	Crop Improvement - I *(Cereals, Millets, Pulses and Oilseeds)*	PC	1	0	2	0	2	3	22GPBR111
46	22GPBR313	Intellectual Property Rights	PC	1	0	0	0	1	1	Value added Course
47	22SSAC321	Problematic Soils and their Management	PC	1	0	2	0	2	3	22SSAC121
48	22ENTO331	Pests of Field crops and Stored Grain and their Management	PC	2	0	2	0	3	4	22ENTO131
49	22AENG351	Protected Cultivation and Post-harvest technologies	PC	1	0	2	0	2	3	22AENG151
50	22CPHY361	Environmental Studies and Disaster Management	PC	1	0	2	0	2	3	22CPHY261
51	22PATH371	Diseases of Field and Horticultural Crops and their Management - I (Field Crops)	PC	2	0	2	0	3	4	22PATH171
52	22PATH373	Principles of Integrated Pest and Disease Management	PC	1	0	2	0	2	3	22PATH171
53	22AGRO303	Rainfed Agriculture and Watershed Management	PC	1	0	2	0	2	3	22AGRO101
54	22AGRO304	Principles of Organic Farming	PC	1	0	2	0	2	3	22AGRO101
55	22SMCA301	Agriculture Informatics	PC	1	0	2	0	2	3	22SSAC121
56	22GPBR312	Crop Improvement-II *(Fibre, Sugar,Starches,Narcotics,Vegetables, Fruits and Flowers)*	PC	1	0	2	0	2	3	22GPBR111
57	22GPBR314	Principles of Seed Technology	PC	2	0	2	0	3	4	Fundamental course
58	22ENTO332	Pest of Horticultural Crops and their Management and Beneficial insects	PC	2	0	2	0	3	4	22ENTO131
59	22AECO341	Farm Management, Production and ResourceEconomics	PC	1	0	2	0	2	3	22AECO141

60	22PATH372	Diseases of Field and Horticultural Crops and their Management -II (Horticultural Crops)	PC	1	0	2	0	2	3	22PATH171
61	22HORT381	Post-harvest Management and Value Addition of Fruits and Vegetables	PC	1	0	2	0	2	3	22HORT181
62	22ELCT222	Soil, Plant, Water and Seed Testing	PE	1	0	4	0	3	5	Applied course
63	22ELCT272	Food Safety Issues	PE	2	0	2	0	3	4	Applied course
64	22ELCT283	Hi-tech. Horticulture	PE	2	0	2	0	3	4	Applied course
65	22ELCT305	Agricultural Waste Management	PE	2	0	2	0	3	4	Applied course
66	22ELCT306	Weed Management	PE	2	0	2	0	3	4	Applied course
67	22ELCT315	Commercial Plant Breeding	PE	1	0	4	0	3	5	Applied course
68	22ELCT333	Biopesticides and Biofertilizers	PE	2	0	2	0	3	4	Applied course
69	22ELCT334	Agrochemicals	PE	2	0	2	0	3	4	Applied course
70	22ELCT342	Agribusiness Management	PE	2	0	2	0	3	4	Applied course
71	22ELCT362	Micro propagation Technologies	PE	1	0	4	0	3	5	Applied course
72	22ELCT382	Landscaping	PE	2	0	2	0	3	4	Applied course
73	22ELCT383	Protected Cultivation	PE	2	0	2	0	3	4	Applied course
74	22RAWE	Crop Production	Project	0	0	8	0	4	8	Nil
75	22RAWE	Crop Protection	Project	0	0	6	0	3	6	Nil
76	22RAWE	Rural Economics	Project	0	0	4	0	2	4	Nil
77	22RAWE	Extension Programme	Project	0	0	8	0	4	8	Nil
78	22RAWE	Research Station / KVK /DAATT Centre activities and attachment to Agro based industries	Project	0	0	2	0	1	2	Nil
79	22RAWE	Internship	Project	0	0	12	0	6	12	Nil
80	22ELP	Experiential Learning Programme (ELP)	Project	0	0	40	0	20	40	Nil
Total Credits								**188**		

Name of the Program: B.Sc. Food Technology										
Sl No	**Course Code**	**Course Title**	**Category**	**L**	**T**	**P**	**S**	**Cr**	**CH**	**Pre-requisite**
1	22FT11K1	Information & Communication Technology	PC	2	0	2	0	3	4	NIL
2	22FT11C1	Food Chemistry	PC	3	0	2	0	4	5	NIL
3	22FT11C2	Human Physiology and Nutrition	PC	3	0	0	0	3	3	NIL
4	22FT11C3	Introduction to Food Science and Technology	PC	3	0	2	0	4	5	NIL
5	22FT12C1	Food Biochemistry	PC	3	0	2	0	4	5	NIL
6	22FT12C1	Principles of Food Preservation	PC	3	0	0	0	3	3	NIL
7	22FT12C2	Bakery, Confectionery & Snacks Technology	PC	2	0	4	0	4	6	NIL
8	22FT12C3	Food Microbiology	PC	3	0	2	0	4	5	NIL
9	22FT21C1	Data and Statistical Analysis	PC	3	1	0	0	4	4	NIL
10	22FT21C2	Processing of Horticultural Produce	PC	3	0	2	0	4	5	NIL
11	22FT21C3	Food Engineering	PC	3	0	2	0	4	6	NIL
12	22FT22C1	Food Analysis and Quality Assurance	PC	3	0	2	0	4	5	NIL
13	22FT22C2	Food Safety and Regulations	PC	3	0	0	0	3	3	NIL
14	22FT22C3	Processing of Aquatic Foods	PC	3	0	2	0	4	5	NIL
15	22FT22C4	Fermented and Therapeutic Foods	PC	3	0	0	0	3	3	NIL
16	22FT31C1	Bioethics and Bio safety	PC	3	0	0	0	3	3	NIL
17	22FT32C1	Food Product Development and Sensory Evaluation	PC	3	0	2	0	4	5	NIL
18	22FT32C2	Food Packaging Technology	PC	3	0	2	0	4	5	NIL
19	22FT32C3	Technology of Meat and Poultry	PC	3	0	2	0	4	5	NIL
20	22UC0009	Ecology & Environment	AUC	2	0	0	0	0	2	NIL
21	22UC0009	Ecology & Environment	AUC	2	0	0	0	0	2	NIL
22	23UC1101	Integrated Professional English	HAS	0	0	4	0	2	4	NIL
23	22FL3055	German	HAS	2	0	0	0	2	2	NIL
24	23UC1203	Design Thinking and Innovation	HAS	0	0	4	0	2	4	NIL
25	23UC1202	English Proficiency	HAS	0	0	4	0	2	4	NIL
26	23UC0010	Universal Human Values & Professional Ethics	HAS	2	0	0	0	2	2	NIL
27	22UC3201	Indian Heritage and Culture	HAS	2	0	0	0	0	2	NIL
28	22UC0012	Innovation Management	HAS	0	0	4	0	2	4	NIL
29	22FT12EX	Instrumentation in Food Analysis	PEC	3	0	2	0	4	5	NIL
30	22FT21EX	Ice-cream &Frozen Desserts	PEC	3	0	2	0	4	5	NIL

31	22FT22EX	Mathematics for Biologists	PEC	3	1	0	0	4	4	NIL
32	22FT31EX	Brewing and Beverage Technology	PEC	3	0	2	0	4	5	NIL
33	22FT22N1	Summer Internship	PRI	0	0	0	16	4	16	NIL
34	22FT32N2	Industry Project	PRI	0	0	0	24	6	24	NIL
35		Term Paper	PRI	0	0	6	0	3	6	NIL
36		Open Elective - I	OE	3	0	0	0	3	3	NIL
37		Open Elective - II	OE	3	0	0	0	3	3	NIL
38		Open Elective - III	OE	3	0	0	0	3	3	NIL
		TOTAL CREDITS						**120**		

Name of the Program: BBA-LLB										
Sl No	**Course Code**	**Course Title**	**Category**	**L**	**T**	**P**	**S**	**Cr**	**CH**	**Pre-requisite**
1	22UC1101L	General English and Legal Language	HSS	1	0	4	0	3	5	NIL
2	22UC2103L	Legal Professional Communication Skills (English – II)	HSS	1	0	4	0	3	5	NIL
3	22BL12C3	Sociology	HSS	3	1	0	0	4	4	NIL
4	22BL11C1	Principles of Management	MNG	2	1	0	0	3	3	NIL
5	22BL11C2	Business Environment	MNG	2	1	0	0	3	3	NIL
6	22BL12C1	Human Resource Management	MNG	2	1	0	0	3	3	NIL
7	22BL12C2	Principles of Economics and Managerial Economics	MNG	2	1	0	0	3	3	NIL
8	22BL21C1	Marketing Management	MNG	3	0	0	0	3	3	NIL
9	22BL21C2	Macro Economics	MNG	3	0	0	0	3	3	NIL
10	22BL22C1	Foundations to Management Accounting	MNG	3	1	0	0	4	4	NIL
11	22BL22C2	Management Information Systems	MNG	3	0	0	0	3	3	NIL
12	22BL31C1	Organizational Behaviour	MNG	3	0	0	0	3	3	NIL
13	22BL31C2	Financial Management	MNG	3	1	0	0	4	4	NIL
14	22BL32C1	Business Statistics	MNG	3	1	0	4	4	4	NIL
15	22BL32C2	Financial and Cost Accountancy	MNG	3	0	0	0	3	3	NIL
16	22BL11C3	Law of Contracts - I	PC	3	1	0	0	4	4	NIL
17	22BL11C4	Introduction to Law and Legal System	PC	3	1	0	0	4	4	NIL
18	22BL12C4	Law of Contracts – II	PC	3	1	0	0	4	4	NIL
19	22BL21C3	Law of Torts including MV Accident and Consumer Protection Laws	PC	3	0	2	0	4	5	NIL
20	22BL21C4	Constitutional Law - I	PC	3	0	2	0	4	5	NIL
21	22BL21C5	Law of Crimes – I	PC	3	0	2	0	4	5	NIL
22	22BL21C6	Family Law - I	PC	3	0	2	0	4	5	NIL
23	22BL22C3	Interpretation of Statutes and Principle of Legislation	PC	3	0	2	0	4	5	NIL
24	22BL22C4	Constitutional Law – II	PC	3	0	2	0	4	5	NIL
25	22BL22C5	Jurisprudence	PC	3	0	2	0	4	5	NIL
26	22BL22C6	Family Law – II	PC	3	0	2	0	4	5	NIL
27	22BL31C3	Company Law - I	PC	3	0	2	0	4	5	NIL
28	22BL31C4	Law of Crimes - II	PC	3	0	2	0	4	5	NIL
29	22BL31C5	Law of Evidence	PC	3	0	2	0	4	5	NIL
30	22BL31C6	Administrative Law	PC	3	0	2	0	4	5	NIL
31	22BL32C3	Company Law - II	PC	3	0	2	0	4	5	NIL
32	22BL32C4	Code of Civil Procedure and Law of Limitation	PC	3	0	2	0	4	5	NIL
33	22BL32C5	Law of Property	PC	3	0	2	0	4	5	NIL
34	22BL32C6	Labour Law - I	PC	3	0	2	0	4	5	NIL
35	22BL41C1	Intellectual Property Rights	PC	3	0	2	0	4	5	NIL
36	22BL41C2	Law of Insurance	PC	3	0	2	0	4	5	NIL
37	22BL41C3	Public International Law	PC	3	0	2	0	4	5	NIL
38	22BL41C4	Labour Law - II	PC	3	0	2	0	4	5	NIL
39	22BL42C1	Law of Banking and N.I. Act	PC	3	0	2	0	4	5	NIL
40	22BL42C2	Law of Taxation	PC	3	0	2	0	4	5	NIL
41	22BL42C3	Environmental Law	PC	3	0	2	0	4	5	NIL
42	22BL42C4	Private International Law	PC	3	0	2	0	4	5	NIL
43	22BL51C4	I.T. Offences and Cyber Law	PC	3	0	2	0	4	5	NIL

44	22BL51C5	Land Laws	PC	3	0	2	0	4	5	NIL
45	22BL51C1	Mediation and Conciliation and Arbitration	Clinical	3	0	2	0	4	5	NIL
46	22BL51C2	Drafting, Pleading and Conveyance	Clinical	2	0	4	0	4	6	NIL
47	22BL51C3	Professional Ethics and Professional Accountancy system	Clinical	2	0	4	0	4	6	NIL
48	22BL52C3	Moot Court Exercises and Internship	Clinical	0	0	8	0	4	8	NIL
49	22BL52C4	Experiential Learning and Access to Justice	Clinical	0	0	4	0	2	4	NIL
50	22BL41C5	Media Law and Right to Information Act	PE-1	3	0	2	0	4	5	NIL
51	22BL41C6	International Trade and Investment Law								NIL
52	22BL41C7	Maritime Law								NIL
53	22BL41C8	Aviation Law								NIL
54	22BL41C9	Competition Law								NIL
55	22BL42C5	International Human Rights Law	PE-2	3	0	2	0	4	5	NIL
56	22BL42C6	Humanitarian and Refugee Law								NIL
57	22BL42C7	Citizenship and Emigration Law								NIL
58	22BL42C8	Infrastructure Law								NIL
59	22BL42C9	Health Law								NIL
60	22BL11C5	Introduction to Information Technology	SKILL	2	0	2	0	3	4	NIL
61	22BL12C5	Moot Court Training-I	SKILL	0	0	0	4	1	4	NIL
62	22BL12C6	Summer Internship Programme I	SKILL	0	0	0	8	2	8	NIL
63	22BL21C7	Moot Court Training – II	SKILL	0	0	0	4	1	4	NIL
64	22BL22C7	Summer Internship Programme II	SKILL	0	0	0	8	2	8	NIL
65	22BL31C7	Moot Court Training - III	SKILL	0	0	0	4	1	4	NIL
66	22BL32C7	Summer Internship Programme III	SKILL	0	0	0	8	2	8	NIL
67	22BL41C10	Soft Skills	SKILL	1	0	4	0	3	5	NIL
68	22BL41C11	Moot Court Training - IV	SKILL	0	0	0	4	1	4	NIL
69	22BL42C10	Seminar Paper - I	SKILL	0	0	4	0	2	4	NIL
70	22BL42C11	Summer Internship Programme IV	SKILL	0	0	0	8	2	8	NIL
71	22BL51C6	Seminar Paper - II	SKILL	0	0	4	0	2	4	NIL
72	22BL51C7	Moot Court Training - V	SKILL	0	0	0	4	1	4	NIL
73	22BL52C1	Seminar Paper - III	SKILL	0	0	4	0	2	4	NIL
		Grand Total Credits						**216**		

Name of the Program: M.Sc Chemistry										
S.No	**Course Code**	**Course Title**	**Category**	**L**	**T**	**P**	**S**	**Cr**	**CH**	**Pre-requisite**
1	22UC1203	Design Thinking and Innovation	HSS	0	0	4	0	2	4	NIL
2	22UC2106	Communication and Logical Skills	HSS	0	0	0	2	2	2	NIL
3	22CY5101	Theoretical Chemistry-I	PC	4	0	0	0	4	4	NIL
4	22CY5102	Inorganic Chemistry- I	PC	4	0	6	0	7	10	NIL
5	22CY5103	Organic Chemistry-I	PC	4	0	6	0	7	10	NIL
6	22CY5104	Physical Chemistry-I	PC	4	0	6	0	7	10	NIL
7	22CY5201	Theoretical Chemistry-II	PC	4	0	0	0	4	4	NIL
8	22CY5202	Inorganic Chemistry- II	PC	4	0	6	0	7	4	NIL
9	22CY5203	Organic Chemistry-II	PC	4	0	6	0	7	10	NIL
10	22CY5204	Physical Chemistry-II	PC	4	0	6	0	7	10	NIL
11	22CY5301	Instrumental Methods of Analysis-I	PC	4	0	6	0	7	10	NIL
12	22CY5302	Quality Control and Classical Methods of Analysis	PC	4	0	0	0	4	4	NIL
13	22CY5303	Applied Chemical Analysis	PC	4	0	6	0	7	10	NIL
14	22CY5310	Organic Synthesis-I	PC	4	0	6	0	7	10	NIL
15	22CY5311	Natural Products and Bio-molecules	PC	4	0	6	0	7	10	NIL
16	22CY5312	Organic Spectroscopy	PC	4	0	0	0	4	4	NIL
17	22CY5401	Instrumental Methods of Analysis-II	PC	4	0	6	0	7	10	NIL
18	22CY5402	Advance Applied Chemical Analysis	PC	4	0	6	0	7	10	NIL
19	22CY5407	Organic Synthesis-II	PC	4	0	6	0	7	10	NIL
20	22CY5408	Advance Heterocyclic chemistry	PC	4	0	6	0	7	10	NIL
21	22CY5304	Separation Techniques	PE	3	0	0	0	3	3	NIL
21	22CY5305	Applications of Chemical Spectroscopy	PE	3	0	0	0	3	3	NIL
22	22CY5306	Bio analytical Chemistry	PE	3	0	0	0	3	3	NIL

23	22CY5307	Environmental Chemistry	PE	3	0	0	0	3	3	NIL
24	22CY5308	Surface Analytical Techniques	PE	3	0	0	0	3	3	NIL
25	22CY5309	Analysis of Food and Drugs	PE	3	0	0	0	3	3	NIL
26	22CY5313	Photo Chemistry and Pericyclic reactions	PE	3	0	0	0	3	3	NIL
27	22CY5314	Organometallic Chemistry	PE	3	0	0	0	3	3	NIL
28	22CY5315	Bio Organic Chemistry	PE	3	0	0	0	3	3	NIL
29	22CY5316	Green & Sustainable Chemistry	PE	3	0	0	0	3	3	NIL
30	22CY5317	Supra molecular Chemistry	PE	3	0	0	0	3	3	NIL
31	22CY5318	Medicinal chemistry	PE	3	0	0	0	3	3	NIL
32	22CY5404	Chromatographic Techniques & Method Validation	PE	3	0	0	0	3	3	NIL
33	22CY5405	Classical Methods of Analysis	PE	3	0	0	0	3	3	NIL
34	22CY5406	Chemo Sensors and body fluid analysis	PE	3	0	0	0	3	3	NIL
35	22CY5410	Drug Design & Development	PE	3	0	0	0	3	3	NIL
36	22CY5411	Chemistry of Drugs and Pharmaceuticals	PE	3	0	0	0	3	3	NIL
37	22CY5412	Nano Chemistry	PE	3	0	0	0	3	3	NIL
38	22CY5403	Dissertation with Research Publication	PR	0	0	12	0	6	12	NIL
39	22CY5409	Dissertation with Research Publication	PR	0	0	12	0	6	12	NIL
Total Credits								**101**		

Name of the Program: M.Sc Applied Mathematics										
S.No	**Course Code**	**Course Title**	**Category**	**L**	**T**	**P**	**S**	**Cr**	**CH**	**Pre-requisite**
1	20UC1101	Integrated Professional English	HSS	0	0	4	0	2	4	NIL
2	21UC1103	Design Thinking and Innovation	HSS	1	0	0	4	2	5	NIL
3	21AM1101	Real Analysis	PC	4	0	0	0	4	4	NIL
4	21AM1102	Ordinary Differential Equations	PC	3	0	2	0	4	3	NIL
5	21AM1103	Discrete Mathematics	PC	3	1	0	0	4	4	NIL
6	21AM1104	Introduction to Computer Programming	PC	3	0	2	0	4	5	NIL
7	21AM1105	Mathematical Statistics	PC	3	1	0	0	4	4	NIL
8	21AM1201	Abstract Algebra	PC	3	0	0	0	3	3	NIL
9	21AM1202	Data Structures	PC	3	0	2	0	4	5	NIL
10	21AM1203	Statistical Inference	PC	3	1	0	0	4	4	NIL
11	21AM1204	Numerical Analysis	PC	3	0	2	0	4	5	NIL
12	21AM1205	Complex Analysis	PC	3	1	0	0	4	4	NIL
13	21AM2101	Topology	PC	3	0	0	0	3	3	NIL
14	21AM2102	Partial Differential Equations	PC	3	1	0	0	4	4	NIL
15	21AM2103	Continuum Mechanics	PC	3	1	0	0	4	4	NIL
16	21AM2104	Statistics with R Programming	PC	3	0	2	0	4	5	NIL
17	21AM2201	Fluid Dynamics	PC	3	0	2	0	4	5	NIL
18	21AM2202	Transform Techniques	PC	3	0	2	0	4	5	NIL
19	21AM2106	Operations Research	PE	3	1	0	0	4	4	NIL
20	21AM2107	Functional Analysis	PE	3	1	0	0	4	4	NIL
21	21AM2108	Fuzzy mathematics and applications	PE	3	1	0	0	4	4	NIL
22	21AM2204	Mathematical Modelling	PE	3	1	0	0	4	4	NIL
23	21AM2205	Mathematical Control Theory	PE	3	1	0	0	4	4	NIL
24	21AM2206	Dynamical Systems	PE	3	1	0	0	4	4	NIL
25	21AM2207	Advanced Numerical Analysis	PE	3	0	2	0	4	5	NIL
26	21AM2208	Number Theory	PE	3	1	0	0	4	4	NIL
27	21AM2209	Applied Stochastic Processes	PE	3	1	0	0	4	4	NIL
28	21AM1206	Technical Skills	Skill	0	0	0	4	1	4	NIL
29	21AM1106	Seminar-1	PRI	0	0	2	0	1	1	NIL
30	21AM1207	Seminar-2	PRI	0	0	2	0	1	2	NIL
31	21AM2105	Seminar-3	PRI	0	0	2	0	1	2	NIL
32	21AM2203	Dissertation with Research Publication	PRI	0	0	24	0	12	24	NIL
Total Credits								**94**		

Name of the Program: M.Sc Physics										
Sl No	**Course Code**	**Course Title**	**Category**	**L**	**T**	**P**	**S**	**Cr**	**CH**	**Pre-requisite**
1	22UC1101	Integrated Professional English	HSS	0	0	4	0	2	4	Nil

2	22UC1203	Design Thinking for Innovation	HSS	1	0	0	4	2	5	Nil
3	22PH5101	Mathematical Physics	PC	4	0	0	0	4	4	Nil
4	22PH5102	Classical Mechanics	PC	4	0	0	0	4	4	Nil
5	22PH5103	Electrodynamics	PC	4	0	0	0	4	4	Nil
6	22PH5104	Analog Electronics	PC	4	0	0	0	4	4	Nil
7	22PH5105	Computational Physics	PC	4	0	0	0	4	4	Nil
8	22PH5106	Analog Electronics Lab	PC	0	0	6	0	3	6	Nil
9	22PH5107	Computational Physics Lab	PC	0	0	4	0	2	4	Nil
10	22PH5201	Statistical Mechanics	PC	4	0	0	0	4	4	Nil
11	22PH5202	Quantum Mechanics – 1	PC	4	0	0	0	4	4	Nil
12	22PH5203	Fiber Optics and Non- linear optics	PC	4	0	0	0	4	4	Nil
13	22PH5204	Solid State Physics-1	PC	4	0	0	0	4	4	Nil
14	22PH5205	Digital Electronics	PC	4	0	0	0	4	4	Nil
15	22PH5206	Solid State Physics-1 lab	PC	0	0	6	0	3	6	Nil
16	22PH5207	Digital Electronics Lab	PC	0	0	6	0	3	6	Nil
17	22PH5208	Seminar	PC	0	0	2	0	1	2	Nil
18	22PH5301	Quantum Mechanics-2	PC	4	0	0	0	4	4	QM-1
19	22PH5302	Atomic and Molecular Spectroscopy	PC	4	0	0	0	4	4	Nil
20	22PH5303	Nuclear Physics	PC	3	0	0	0	3	3	Nil
21	22PH5304	Particle Physics	PC	2	0	0	0	2	2	Nil
22	22PH5305	Solid State Physics -2	PC	4	0	0	0	4	4	Nil
23	22PH5306	Lasers and Photonics	PC	4	0	0	0	4	4	Nil
24	22PH5308	Solid State Physics 2 Lab	PC	0	0	6	0	3	6	Nil
25	22PH54E1	Experimental Techniques	PE	3	0	0	0	3	3	Nil
26	22PH54E2	Basic Communication Theory	PE	3	0	0	0	3	3	Nil
27	22PH54E3	Nano Photonics	PE	3	0	0	0	3	3	Nil
28	22PH54E4	Physics of Nanomaterials	PE	3	0	0	0	3	3	Nil
29	22PH54E5	Radar Systems and Satellite communication	PE	3	0	0	0	3	3	Nil
30	22PH54E6	Nano Electronics	PE	3	0	0	0	3	3	Nil
31	22PH54E7	Thin-film Technology	PE	3	0	0	0	3	3	Nil
32	22PH54E8	Antenna theory and Radio wave Propagation	PE	3	0	0	0	3	3	Nil
33	22PH54E9	Nanotechnology for Renewable Energy Materials	PE	3	0	0	0	3	3	Nil
34	22PH5401	Dissertation with Research Publication	PR	0	0	16	0	8	16	Nil
35	22PH5307	Term paper	PR	0	0	4	0	2	4	Nil
Total Credits								**99**		

Name of the Program: Master of Business Administration (MBA)										
Sl No	**Course Code**	**Course Title**	**Category**	**L**	**T**	**P**	**S**	**Cr**	**CH**	**Pre-requisite**
1	22MB51C0	Quantitative Methods	BS	3	0	0	0	3	3	Nil
2	22MB51C1	Principles of Management and Organizational Behaviour	PC	3	0	0	0	3	3	Nil
3	22MB51C2	Business Economics	PC	3	0	0	0	3	3	Nil
4	22MB51C3	Financial and Management Accounting	PC	2	1	0	0	3	3	Nil
5	22MB51C4	Marketing Management	PC	3	0	0	0	3	3	Nil
6	22MB51C5	Business Environment	PC	3	0	0	0	3	3	Nil
7	22MB51C6	Business Legislation	PC	3	0	0	0	3	3	Nil
8	22UC2109	Logical Thinking Skills for Managers	HSS	0	0	4	0	2	4	Nil
9	22UC1203	Design Thinking and Innovation	HSS	0	0	4	0	2	4	Nil
10	22MB52C1	Introduction to Business Analytics and R Programming	PC	3	0	2	0	4	5	Nil
11	22MB52C2	Business Research Methodology	BS	4	0	0	0	4	4	Nil
12	22MB52C3	Human Resource Management	PC	3	0	0	0	3	3	Nil
13	22MB52C4	Financial Management	PC	2	1	0	0	3	3	Nil
14	22MB52C5	Operations Management	PC	3	0	0	0	3	3	Nil
15	22MB52C6	Information Systems and ERP	PC	3	0	0	0	3	3	Nil
16	22UC2107	Professional Skills for Managers	HSS	0	0	4	0	2	4	Nil
17	22MB61C0	Strategic Management	PC	3	0	0	0	3	3	Nil
18	22MB61C1	Entrepreneurship and Family Business	PC	3	0	0	0	3	3	Nil

19	22MB62C0	Leadership in Organisations	PC	3	0	0	0	3	3	Nil
20	22MB62C1	Business Ethics and Corporate Governance	PC	3	0	0	0	3	3	Nil
21	22MB61XX	Professional Elective – 1 (FM/HR/MM/BA/SCM)	PE	3	0	0	0	3	3	Nil
21	22MB61XX	Professional Elective – 2 (FM/HR/MM/BA/SCM)	PE	3	0	0	0	3	3	Nil
22	22MB61XX	Professional Elective – 3 (FM/HR/MM/BA/SCM)	PE	3	0	0	0	3	3	Nil
23	22MB61XX	Professional Elective – 4 (FM/HR/MM/BA/SCM)	PE	3	0	0	0	3	3	Nil
24	22MB61XX	Professional Elective – 5 (Sectoral Specialization I)	PE	3	0	0	0	3	3	Nil
25	22MB62XX	Professional Elective – 6 (FM/HR/MM/BA/SCM)	PE	3	0	0	0	3	3	Nil
26	22MB62XX	Professional Elective – 7 (FM/HR/MM/BA/SCM)	PE	3	0	0	0	3	3	Nil
27	22MB62XX	Professional Elective – 8 (FM/HR/MM/BA/SCM)	PE	3	0	0	0	3	3	Nil
28	22MB62XX	Professional Elective – 9 (FM/HR/MM/BA/SCM)	PE	3	0	0	0	3	3	Nil
29	22MB62XX	Professional Elective – 10 (Sectoral Specialization II)	PE	3	0	0	0	3	3	Nil
30	22MB50N0	Summer Internship Program	INT	0	0	18	0	9	18	Nil
31	22MB62E8	Management Research Project	PR	0	0	12	0	6	12	Nil
Total Credits								**104**		
		List of Professional Electives with Specializations								
		Operations & Supply Chain Management								
32	22MB61L1	Materials Management	PE	3	0	0	0	3	3	Nil
33	22MB61L2	Fundamentals of Supply Chain Management	PE	3	0	0	0	3	3	Nil
34	22MB61L3	Operations Strategy	PE	3	0	0	0	3	3	Nil
35	22MB61L4	Total Quality Management	PE	3	0	0	0	3	3	Nil
36	22MB62L5	Lean Management	PE	3	0	0	0	3	3	Nil
37	22MB62L6	Warehouse Management	PE	3	0	0	0	3	3	Nil
38	22MB62L7	Supply Chain Analytics	PE	2	0	2	0	3	4	Nil
39	22MB62L8	International Logistics Management	PE	3	0	0	0	3	3	Nil
		Marketing Management								
40	22MB61M1	Product and Brand Management	PE	3	0	0	0	3	3	Nil
41	22MB61M2	Promotion and Distribution Management	PE	3	0	0	0	3	3	Nil
42	22MB61M3	Global Marketing Management	PE	3	0	0	0	3	3	Nil
43	22MB61M4	Advertisement and Sales Promotion	PE	3	0	0	0	3	3	Nil
44	22MB61M5	Consumer Behaviour	PE	3	0	0	0	3	3	Nil
45	22MB61M6	Digital Marketing	PE	3	0	0	0	3	3	Nil
46	22MB62M7	Services Marketing	PE	3	0	0	0	3	3	Nil
47	22MB62M8	Customer relationship Management	PE	3	0	0	0	3	3	Nil
48	22MB62M9	Rural and Agricultural Marketing	PE	3	0	0	0	3	3	Nil
49	22MB62M10	Event and Entertainment Management	PE	3	0	0	0	3	3	Nil
50	22MB62M11	Sales and Promotion Management	PE	3	0	0	0	3	3	Nil
51	22MB62M12	Logistics and Supply Chain Management	PE	3	0	0	0	3	3	Nil
		Financial Management								
52	22MB61F1	Wealth Management	PE	3	0	0	0	3	3	Nil
53	22MB61F2	Financial Markets and Services	PE	3	0	0	0	3	3	Nil
54	22MB61F3	Security Analysis and Portfolio Management	PE	2	1	0	0	3	3	Nil
55	22MB61F4	Behavioural Finance	PE	3	0	0	0	3	3	Nil
56	22MB62F5	Strategic Financial Management	PE	2	1	0	0	3	3	Nil
57	22MB62F6	Financial Risk Management	PE	2	1	0	0	3	3	Nil
58	22MB62F7	Project Management	PE	3	0	0	0	3	3	Nil
59	22MB62F8	Infrastructure Finance	PE	3	0	0	0	3	3	Nil
60	22MB62F9	International Financial Management	PE	2	1	0	0	3	3	Nil
61	22MB62F10	Blockchain Technology	PE	3	0	0	0	3	3	Nil
		Human Resource Management								
62	22MB61H1	Talent and Competency Management	PE	3	0	0	0	3	3	Nil
63	22MB61H2	Dynamics of Employee Relations	PE	3	0	0	0	3	3	Nil
64	22MB61H3	Performance Management and Reward Systems	PE	3	0	0	0	3	3	Nil
65	22MB61H4	Labour Legislation	PE	3	0	0	0	3	3	Nil
66	22MB61H5	Performance Management	PE	3	0	0	0	3	3	Nil
67	22MB61H6	Human Resource Planning	PE	3	0	0	0	3	3	Nil
68	22MB62H7	International Human Resource Management	PE	3	0	0	0	3	3	Nil
69	22MB62H8	Organizational Change and Change Management	PE	3	0	0	0	3	3	Nil

70	22MB62H9	Strategic Human Resource Management	PE	3	0	0	0	3	3	Nil
71	22MB62H10	Compensation Management	PE	3	0	0	0	3	3	Nil
72	22MB62H11	Training and Development	PE	3	0	0	0	3	3	Nil
73	22MB62H12	Conflict Management and Negotiation	PE	3	0	0	0	3	3	Nil
		Business Analytics								
74	22MB61U1	Introduction to Advanced Technologies	PE	2	0	2	0	3	4	Nil
75	22MB61U2	Data Visualization using Tableau	PE	2	0	2	0	3	4	Nil
76	22MB61U3	Econometrics with Business Applications Using R	PE	2	0	2	0	3	4	Nil
77	22MB61U4	Data Warehousing and Data Mining	PE	2	0	2	0	3	4	Nil
78	22MB61U5	Advanced Business Analytics	PE	2	0	2	0	3	4	Nil
79	22MB61U6	Advanced Excel	PE	2	0	2	0	3	4	Nil
80	22MB62U7	People Analytics	PE	2	0	2	0	3	4	Nil
81	22MB62U8	Business Analytics in Marketing	PE	2	0	2	0	3	4	Nil
82	22MB62U9	Business Analytics in Finance	PE	2	0	2	0	3	4	Nil
83	22MB62U10	Business Forecasting with R	PE	2	0	2	0	3	4	Nil
84	22MB62U11	Big Data Analysis and Its Application	PE	2	0	2	0	3	4	Nil
85	22MB62U12	Machine Learning with Business Applications (with R and Python)	PE	2	0	2	0	3	4	Nil
86	22MB62U13	Data Visualization using R/Excel/Phython	PE	2	0	2	0	3	4	Nil
		SECTORAL ELECTIVES								
		BANKING								
87	22MB61B0	Overview of Banking	PE	3	0	0	0	3	3	Nil
88	22MB62B1	Banking Service Operations	PE	3	0	0	0	3	3	Nil
		HEALTHCARE & HOSPITAL MANAGEMENT								
89	22MB61D0	Overview of Healthcare Management	PE	3	0	0	0	3	3	Nil
90	22MB62D1	Management of Healthcare Operations	PE	3	0	0	0	3	3	Nil
		RETAIL MANAGEMENT								
91	22MB61R0	Overview of Retailing	PE	3	0	0	0	3	3	Nil
92	22MB62R1	Management of Retail Operations	PE	3	0	0	0	3	3	Nil
		INFORMATION TECHNOLOGY								
93	22MB61I0	IT Enabled Services	PE	3	0	0	0	3	3	Nil
94	22MB62I1	Marketing of Software Solutions	PE	3	0	0	0	3	3	Nil
		RURAL & AGRICULTURAL MARKETING								
95	22MB61G0	Overview of Agriculture and Rural Sectors in India	PE	3	0	0	0	3	3	Nil
96	22MB62G1	Management of Agricultural and Rural Development in India	PE	3	0	0	0	3	3	Nil
		PHARMACEUTICAL MARKETING								
97	22MB61P0	Pharmaceutical Marketing Management	PE	3	0	0	0	3	3	Nil
98	22MB62P1	Advanced Pharmaceutical Marketing Management	PE	3	0	0	0	3	3	Nil

Name of the Program: M.Pharmacy										
Sl No	**Course Code**	**Course Title**	**Category**	**L**	**T**	**P**	**S**	**Cr**	**CH**	**Pre-requisite**
1	22PY5101	Modern Pharmaceutical Analytical Techniques	PCC	4	0	0	0	4	4	Nil
2	22PY5102	Drug Delivery Systems	PCC	4	0	0	0	4	4	Nil
3	22PY5103	Modern Pharmaceutics	PCC	4	0	0	0	4	4	Nil
4	22PY5104	Regulatory Affairs	PCC	4	0	0	0	4	4	Nil
5	22PY5105	Pharmaceutics Practical I	PCC	0	0	12	0	6	12	Nil
6	22PY5107	Molecular Pharmaceutics (Nano Tech and Targeted DDS)	PCC	4	0	0	0	4	4	Nil
7	22PY5108	Advanced Biopharmaceutics & Pharmacokinetics	PCC	4	0	0	0	4	4	Nil
8	22PY5109	Computer Aided Drug Delivery System	PCC	4	0	0	0	4	4	Nil
9	22PY5110	Cosmetic and Cosmeceuticals	PCC	4	0	0	0	4	4	Nil
10	22PY5111	Pharmaceutics Practical II	PCC	0	0	12	0	6	12	Nil
11	22PY5113	Research Methodology and Biostatistics	PCC	4	0	0	0	4	4	Nil
12	22PY5106	Seminar/Assignment	Skill	0	0	8	0	4	8	Nil
13	22PY5112	Seminar/Assignment	Skill	0	0	8	0	4	8	Nil
14	22PY5114	Journal club	Skill	0	0	2	0	1	2	Nil
15	22PY5115	Discussion / Presentation (Proposal Presentation)	Skill	0	0	4	0	2	4	Nil

16	22PY5117	Journal Club	Skill	0	0	2	0	1	2	Nil
17	22PY5119	Discussion/Final Presentation	Skill	0	0	6	0	3	6	Nil
18	22PY5120	Co-curricular Activities (Attending Conference, Scientific Presentations and Other Scholarly Activities)	Skill	0	0	8	0	4	8	Nil
19	22PY5116	Research Work	PR	0	0	28	0	14	28	Nil
20	22PY5118	Research Work	PR	0	0	33	0	16	33	Nil
Total Credits								**97**		

Name of the Program: MCA										
Sl No	**Course Code**	**Course Title**	**Category**	**L**	**T**	**P**	**S**	**Cr**	**CH**	**Pre-requisite**
1	22UC2106	Communication and Logical Skills	HSS	0	0	4	0	2	4	NIL
2	22CA4100	Computer Networks	PC	3	1	0	0	4	4	NIL
3	22CA4101	Computational Thinking and Data Structures	PC	3	0	2	4	5	9	NIL
4	22CA4102	Research Exploration	PC	2	1	0	0	3	3	NIL
5	22CA4103	Operating Systems	PC	3	1	0	0	4	4	NIL
6	22CA4104	Database Management System	PC	3	0	2	4	5	9	NIL
7	22CA4205	Data Analytics	PC	3	0	2	4	5	9	NIL
8	22CA4206	Object Oriented Programming	PC	3	0	2	4	5	9	NIL
9	22CA4207	Software Engineering	PC	2	1	0	0	3	3	NIL
10	22CA4209	IOT Technology and Applications	PC	3	1	0	0	4	4	NIL
11	22CA5110	Web Technologies	PC	3	0	2	4	5	9	NIL
12	22CA5111	Automation and Intelligence	PC	3	0	0	0	3	3	NIL
13	22CA5112	Intellectual Property Rights	PC	3	0	0	0	3	3	NIL
14	22CA5115	Machine Learning	PE	3	0	2	0	4	5	NIL
15	22CA5123	Cloud Computing	PE							
16	22CA5116	Soft Computing	PE	3	0	2	0	4	5	NIL
17	22CA5120	BigData Analytics	PE							
18	22CA5124	Cloud Information Security	PE							
19	22CA5217	Pattern Recognition	PE	3	0	2	0	4	5	NIL
20	22CA5221	Data Visualisation	PE							
21	22CA5225	Cloud Architectures	PE							
22	22CA5218	Deep Learning	PE	3	0	2	4	5	9	NIL
23	22CA5222	Cognitive Computing	PE							
24	22CA5226	Cloud Web Services	PE							
25	22CA5113	Internship / Research Work	PR	0	0	4	0	2	4	NIL
26	22CA5214	Project / Dissertation Work	PR	0	0	20	0	10	20	NIL
Total Credits								**80**		

Name of the Program: Pharm. D										
Sl No	**Course Code**	**Course Title**	**Category**	**L**	**T**	**P**	**S**		**CH**	**Pre-requisite**
1	22PY610B6T	Remedial Biology	BSC	3	1	0	0		4	Nil
2	22PY610M6T	Remedial Mathematics	BSC	3	1	0	0		4	Nil
3	22PY610B6P	Remedial Biology	BSC	0	0	3	0		3	Nil
4	22PY6101T	Human Anatomy and Physiology	PCC	3	1	0	0		4	Nil
5	22PY6101P	Human Anatomy and Physiology	PCC	0	0	3	0		3	Nil
6	22PY6102T	Pharmaceutics	PCC	2	1	0	0		3	Nil
7	22PY6102P	Pharmaceutics	PCC	0	0	3	0		3	Nil
8	22PY6103T	Medicinal Biochemistry	PCC	3	1	0	0		4	Nil
9	22PY6103P	Medicinal Biochemistry	PCC	0	0	3	0		3	Nil
10	22PY6104T	Pharmaceutical Organic Chemistry	PCC	3	1	0	0		4	Nil
11	22PY6104P	Pharmaceutical Organic chemistry	PCC	0	0	3	0		3	Nil
12	22PY6105T	Pharmaceutical Inorganic Chemistry	PCC	2	1	0	0		3	Nil
13	22PY6105P	Pharmaceutical Inorganic Chemistry	PCC	0	0	3	0		3	Nil
14	22PY6201T	Pathophysiology	PCC	3	1	0	0		4	Nil
15	22PY6202T	Pharmaceutical Microbiology	PCC	3	1	0	0		4	Nil
16	22PY6202P	Pharmaceutical Microbiology	PCC	0	0	3	0		3	Nil
17	22PY6203T	Pharmacognosy&Phytopharmaceuticals	PCC	3	1	0	0		4	Nil

18	22PY6203P	Pharmacognosy&Phytopharmaceuticals	PCC	0	0	3	0		3	Nil
19	22PY6204T	Pharmacology-I	PCC	3	1	0	0		4	Nil
20	22PY6205T	Community Pharmacy	PCC	2	1	0	0		3	Nil
21	22PY6206T	Pharmacotherapeutics-I	PCC	3	1	0	0		4	Nil
22	22PY6206P	Pharmacotherapeutics-I	PCC	0	0	3	0		3	Nil
23	22PY6301T	Pharmacology-II	PCC	3	1	0	0		4	Nil
24	22PY6301P	Pharmacology-II	PCC	0	0	3	0		3	Nil
25	22PY6302T	Pharmaceutical Analysis	PCC	3	1	0	0		4	Nil
26	22PY6302P	Pharmaceutical Analysis	PCC	0	0	3	0		3	Nil
27	22PY6303T	Pharmacotherapeutics-II	PCC	3	1	0	0		4	Nil
28	22PY6303P	Pharmacotherapeutics-II	PCC	0	0	3	0		3	Nil
29	22PY6304T	Pharmaceutical Jurisprudence	PCC	2	0	0	0		2	Nil
30	22PY6305T	Medicinal Chemistry	PCC	3	1	0	0		4	Nil
31	22PY6305P	Medicinal Chemistry	PCC	0	0	3	0		3	Nil
32	22PY6306T	Pharmaceutical Formulations	PCC	2	1	0	0		3	Nil
33	22PY6306P	Pharmaceutical Formulations	PCC	0	0	3	0		3	Nil
34	22PY6401T	Pharmacotherapeutics-III	PCC	3	1	0	0		4	Nil
35	22PY6401P	Pharmacotherapeutics-III	PCC	0	0	3	0		3	Nil
36	22PY6402T	Hospital Pharmacy	PCC	2	1	0	0		3	Nil
37	22PY6402P	Hospital Pharmacy	PCC	0	0	3	0		3	Nil
38	22PY6403T	Clinical Pharmacy	PCC	3	1	0	0		4	Nil
39	22PY6403P	Clinical Pharmacy	PCC	0	0	3	0		3	Nil
40	22PY6404T	Biostatistics & Research Methodology	PCC	2	1	0	0		3	Nil
41	22PY6405T	Biopharmaceutics & Pharmacokinetics	PCC	3	1	0	0		4	Nil
42	22PY6405P	Biopharmaceutics & Pharmacokinetics	PCC	0	0	3	0		3	Nil
43	22PY6406T	Clinical Toxicology	PCC	2	1	0	0		3	Nil
44	22PY6501T	Clinical Research	PCC	3	1	0	0		4	Nil
45	22PY6502T	Pharmacoepidemiology and Pharmacoeconomics	PCC	3	1	0	0		4	Nil
46	22PY6503T	Clinical Pharmacokinetics & Pharmacotherapeutic Drug Monitoring	PCC	2	1	0	0		3	Nil
47	22PY650N4	Clerkship	PCC	0	1	0	0		1	Nil
48	22PY660N1	Internship	PCC	0	0	40	0		40	Nil
49	22PY650E5	Project Work	PRI	0	0	20	0		20	Nil
Total Courses				**49**						