(DEEMED TO BE UNIVERSITY)

STUDENT handbook 2022-2023

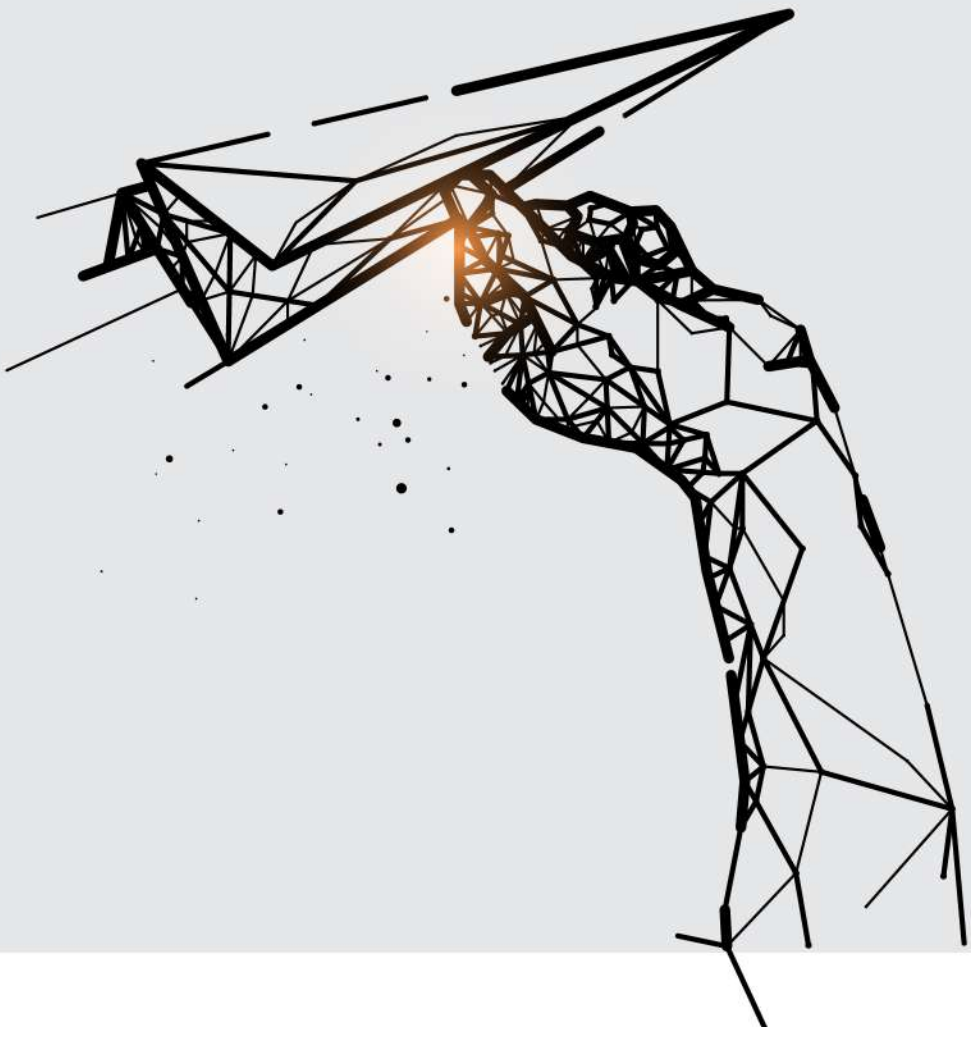
www.kluniversity.in

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
HoD - Agriculture - DR.P SENTHIL MURUGAN	agilanagri2008@gmail.com
HOD-BBA-Dr.VENKATESWARA RAO PODILE	vraopodile@kluniversity.in
HOD-COMMERCE-Dr.VEDANTAM VENU MADHAV	dr.v.v.madhav@kluniversity.in
HOD-MBA-DR.K. HEMA DIVYA	divya10_mba@kluniversity.in
HOD-ARTS-DR.K.S.VENKATESWARA KUMAR	venki@kluniversity.in
HOD-LAW-Dr.K I PAVAN KUMAR	indupavan73@kluniversity.in
HOD-FINE ARTS-DR.RAVINDRA BABU VEGURI	veguriravindrababu@kluniversity.in
HOD-ARCHITECTURE-Mr.GUNTAKA VIDYA SAGAR REDDY	kaddi.archi@kluniversity.in

HOD-HOTELMGMT-Dr.SUNDARI DADHABAI	sundaridadhabai@kluniversity.in
HOD-PHYSICS-Dr.G.SUNITA SUNDARI	gunturisunita@kluniversity.in
HOD-CHEMISTRY-Dr.V.SHANMUKHKUMAR JAGARLAPUDI	shanmukh_fed@kluniversity.in
HOD-MATHEMATICS-Dr.B.V.APPA RAO	bvardr2010@kluniversity.in
HOD-ENGLISH-Dr.S.LAVANYA	slavanya_css@kluniversity.in
HOD-BES-I-Dr.D.HARITHA	haritha_donavalli@kluniversity.in
HOD-BES-2-Dr.MIRYALA SRIDHAR	sridhar.m@kluniversity.in
HOD-PHARMACY-Dr.G.CHAKRAVARTHI	chakra_varthi123@kluniversity.in
HOD-BCAKONDURI -BHAGAVAN	bhagavan@kluniversity.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 KoneruLakshmaiah 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 "KoneruLakshmaiah 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 ofuniversities 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 and32.98 lakhs eBooks. 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,10GIB HCA) 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 GirlsHostel

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 BoysHostel

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 mustintimate 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 InnerEngineering:

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(M.Tech)

THE PROGRAM EDUCATIONAL OBJECTIVES OF M.TECH PROGRAM:

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 a same an sof enhancing knowledge and skills necessary to contribute to the betterment of profession

M.TECHBIOTECHNOLOGY PROGRAM OUTCOMES:

PONO	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

PROGRAM OUTCOMES

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 PROGRAM OUTCOMES

PO NO	DESCRIPTION
PO1	Anabilitytoindependentlycarryoutresearch/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 PROGRAM OUTCOMES

PONO	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 PROGRAM OUTCOMES

PONO	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	Extractinformationrelevanttonovelproblemsandapplyappropriateresearchmethodologyt odevelopscientificknowledge.
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 PROGRAM OUTCOMES:

PONO	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 PROGRAM OUTCOMES:

PONO	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 in ELECTRIC VEHICLE TECHNOLOGY

Program Outcomes (POs):

PO	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 in POWER ELECTRONICS AND POWER SYSTEMS

Program Outcomes (POs):

PO	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

Program Outcome's

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 AUTOMETION

Program Outcomes

PO Number	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

Program Outcome's

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

Program Outcomes

PO Number	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. (SKILL)
PEO2	Strengthen intellectual growth and the capacity to develop creative andresponsible solutions to unique and changing problems. (EMPL)
PEO3	Acquireleadership capabilities necessary for the competentpracticeofarchitecture and lifelong learning. (ETPR)
PEO4	Pursue advanced education, research and development, and other creative andinnovative efforts in the field of Architecture. (SKILL).

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 coredisciplines 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 withintellectual 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 (H) 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 atnational and international level.

Bachelor of Science(Hotel Management)

Program Education Outcomes(PEOs)

PEO1	Make students to be leaders in hospitality industry through industry immersionand national and international linkages in order to support business in the field of relevance.
PEO2	To intensify student`s knowledge and skills with instruction based on international standards, to produce quality graduates with balanced knowledge,skills and industry exposure in catering, hotel and management.
PEO3	Inculcate leadership skills needed for integration of hotel and restaurant development, to demonstrate community involvement in travel and touroperation, airlines and other related industries to strengthen their knowledge and skills.

Program Outcomes (POs)

PONO.	**Description**
PO 1	Technical Knowledge of techniques and equipment for planting, growing, and harvesting food products (both plant and animal) for consumption, including storage/handlingtechniques.
PO 2	Quality / Cost control Knowledge of raw materials, production processes,quality control, costs, hygiene and sanitation and other techniques for maximizing the effective manufacture and distribution of goods.

PO 3	Strategic Planning Knowledge of business and management principles involved effectively in strategic planning, resource allocation, human resources modeling, leadership technique, production methods, and coordination ofpeople and resources.
PO 4	Customer Service Knowledge of principles and processes for providing customer and personal services. This includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction.
PO 5	Financial Principles Knowledge of economic and accounting principles andpractices, the financial markets, banking, analysis and reporting of financial data involved in industrialsectors.
PO 6	Individual and teamwork Knowledge of principles and procedures for personnel recruitment, selection, training, compensation and benefits, labor relations and negotiation, and personnel information systems.
PO 7	Communication Knowledge of the structure and content of differentlanguage including the meaning and spelling of words, rules of composition, and grammar.
PO 8	Marketing Strategy Knowledge of principles and methods for showing,promoting, and selling products or services. This includes marketing strategy and tactics, product demonstration, sales techniques, and sales control systems.
PO 9	Safety Measures Knowledge of principal methods of cleaning, controlling, recycling process, maintenance of equipment's, latest technology and its usage,safety measures to taken in hotel industry.
PO10	Tourism Industry Knowledge on Tourism, hospitality industry history,sales, promotions, Audit, general knowledge, share market, excellent skill to communicate and computer knowledge.

Bachelor of Science (VisualCommunication)

Programme Educational Objectives (PEOs)

PEO1	Graduate Apply appropriate communication skills across settings, purposes, and audiences.
PEO2	Graduates shall promote professionalism in the practice of Visual Communication.
PEO3	Graduates with sense of responsibility and rooted in community involvement with a global perspective.
PEO4	Participate as leaders in their fields of expertise and in activities that support service and economic development throughout the world.

Programme Outcomes (POs)

PO1	Building a solid foundation in the elements, principles and process of visual design.
PO2	Communicate effectively with clients and utilize the talents and strengths of design colleagues to develop the best design products.
PO3	Applying fundamentals to solve increasingly complex design problems in technologically innovative ways
PO4	Engage in critical analysis of their own and their peer's creative work.
PO5	Explore media, communication, and dissemination techniques to entertain via written, oral and visual media.
PO6	Apply design principles to software in a manner that provides the skills to adapt to the newest technologies in expectation for the technologies which will emerge in the future.
PO7	Understanding of and ability to develop strategies for planning, producing, and disseminating visual communications.
PO8	Understand and prepare production management for artworks for hassle free delivery of

	works.
PO9	Ability to carry out research study and fill in the void thus developing new dimensions in ommunications.
PO10	Engage in the practicing of ethical professionalism in the creative world.

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)

PO 1	Pharmacy Knowledge: Provide basic knowledge for understanding the principles and their applications in the area of Pharmaceutical Sciences and Technology.
PO 2	Technical Skills: Develop an ability to use various instrument and equipment with an in-depth knowledge on standard operating procedures for the same.
PO 3	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.
PO 4	Research and Development: To demonstrate knowledge of identifying a problem, critical thinking, analysis and provide rational solutions indifferent disciplines of Pharmaceutical Sciences and Technology
PO 5	Lifelong Learning: Develop an aptitude for continuous learning and professionaldevelopment with ability to engage in pharmacy practice and health education programs
PO 6	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.
PO 7	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.
PO 8	Ethics: Follow the code of ethics and commit to professional values andresponsibilities and norms of the pharmacy practice.
PO 9	Environment and Sustainability: Understand the impact of the professional pharmacy solutions in societal and environmental contexts, and demonstrate theknowledge ofand need for sustainable development.
PO 10	Pharmaceuticalproductdevelopment:Toapplytheknowledgeofmanufacturing, formulation andquality control of various pharmaceutical and cosmetic products
PO 11	Competitive skills: Develop problem-solving skills and aptitude to participateand succeed in competitive examinations.
PO 12	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 knowledgeinpractice
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;

Programme Specific Outcomes (PSOs)

5 Year BB.A, LL.B PROGRAMME	
PSO1	To equip skills required to deal with a fast-changing business environment andlegal arena;
PSO2	To acquaint with technological developments and to make suitable changes inthe field of law and legal profession.

B Sc 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 problem solving 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.

BSc Computer Science

Programme Educational Objectives (PEO)

PEO1	Serve as successful computing professional in science and technology with efficient and optimized Quality attributes
PEO2	Pursue life learning through higher studies, modern research and engagement through professional development and entrepreneurship
PEO3	Demonstrate professional standards and ethics as an individual and in team communication in the industrial, organizational and societal environment.

Program Outcomes (POs)

POs	Description
PO1	Apply knowledge of fundamental in computing sciences, Mathematics, Specialized technologies and programming principles to solve complex problems
PO2	Identify and analyzethe component of problems in industry, organization, and societal environment with computing science standards
PO3	Design and develop methodologies, coding principles and communication standards in solving problem and visualizingsolution for decision making in the area of computing Science
PO4	Investigate and validate scalable methodologies for effective, secure and optimized solutions with principles of evaluation strategies in computing science with higher level standards
PO5	Apply modern tools, research methods, advanced technologies and computing science pedagogies for optimized solution in the dynamic requirement
PO6	Promote leadership and project management abilities as a member or in diverse teams in multi-disciplinary settings
PO7	Demonstrate the knowledge of solutions, related documents and their impacts on environmental contexts, leading towards sustainable development

PO8	Apply ethical principles and commit to professional ethics and responsibilities and norms of computing science principles
PO9	Recognize opportunities and use of innovative thoughts to build worth and means for the betterment of the Society
PO10	Communicate effectively the decision maker to deliver the solution and operational procedures

BSc ANIMATION and GAMING
Program Educational Objectives (PEO's)

PEO 1	To gain in depth theoretical knowledge of animation, art & design, visual effects and gaming for application in industry and academics.
PEO 2	To be able to create appealing artworks, graphic designs, concepts, script, storyboards, character animations, experimental animations, 2D & 3D animations, interactive games and visual effects.
PEO 3	Proficiency and understanding of mind- mapping processes such as story development, character design, script writing, storyboarding, life drawing for 2D and 3D animation; if needed with live action integration.
PEO4	To have logical and reasoning skills to a level where the student is able to work with any programming language and apply the same to any given game design.

Program Outcomes (PO's)

PO1	Building a solid foundation in the elements, principles and process of visual design.
PO2	Communicate effectively with clients and utilize the talents and strengths of design colleagues to develop the best design products.
PO3	Applying fundamentals to solve increasingly complex design problems in technologically innovative ways.
PO4	Engage in critical analysis of their own and their peer's creative work.
PO5	Explore media, communication and dissemination techniques to entertain via written, oral and visual media.

MHS PG Programs
Master of Arts (English)
Program Educational Objectives (PEOs)

PEO1	Introduce students to the professional conversation in English studies in various fields and to texts from diverse eras and cultures, with the intention of provoking and supporting their intellectual curiosity and valuing literature, language, and imagination: Students will develop a passion for literature and language. They will appreciate literature's ability to elicit feeling, cultivate the imagination, and call us to account as humans. They will cultivate their capacity to judge the aesthetic and ethical value of literary texts–and be able to articulate the standards behind their judgments.
PEO2	Critical Approaches: Students will develop the ability to read works of literary, rhetorical, and cultural criticism, and deploy ideas from these texts in their own reading and writing. They will express their own ideas as informed opinions thatare in dialogue with a larger community of interpreters and understand how their own approach compares to the variety of critical and theoretical approaches.

PEO3	Research Skills: Students will be able to identify topics and formulate questions for productive inquiry; they will identify appropriate methods and sources forresearch and evaluate critically the sources they find; and they will use their chosen sources effectively in their own writing, citing all sources appropriately.

Program Outcomes (POs)

PO	Description
PO1	Gain an introductory knowledge of some of the issues explored in influential works in English language and the stylistic strategies that writers used toexplore those issues.
PO2	Read complex texts actively: recognize key passages; raise questions;appreciate complexity and ambiguity; comprehend the literal and figurative uses of language.
PO3	Appreciate literary form: recognize how form and structure shape a text's meaning; appreciate how genre generates expectations and shapes meanings.
PO4	Interpret texts with an awareness of and curiosity for other viewpoints
PO5	Practice writing as a process of motivated inquiry, engaging other writers' ideas through the use of quotations, paraphrase, allusions and summary. Usesources well and cite them correctly.
PO6	Attend to a wider range of voices within inter culturation.
PO7	Enjoy the experience of reading challenging literature: appreciate literature's ability to elicit feeling, cultivate the imagination, and call us to account as humans

Master of Sciences (M.Sc Chemistry)

Program Education Outcomes(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)

PONO	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 AppliedMathematics)

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 employmentrequiring 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 Sciences (Finance &Control) Program Educational Objectives(PEOs)

PEO1	To produce best Postgraduates in Finance & Control 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 internshipand Finance Research project

Program Outcomes (POs):

PO NO	Description
PO1	Develop each Postgraduate student to be adept in identifying and understanding major trends inbusiness environmentboth locally and globally.
PO2	Develop Post-graduate student to be a critical thinker and strong decision maker.
PO3	Develop Post-graduate student to be an effective and professional communicator.
PO4	Create an atmosphere by which the student can become a professional entrepreneur.
PO5	Enhance the ability and skills of entering corporate world.
PO6	This program would open doors for the students to enter into research and development field.
PO7	Ability to create effective professionals in the area of accounting, finance and taxation.

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	025	B.Sc.(Visual Communications)
29	052	B.Com (Honors)
30	054	Bachelor of Business Administration
31	057	Bachelor of Arts
32	058	B.Sc(Hotel Management)
33	060	B.Com Computers
34	061	B.Sc Agriculture
35	064	BSc Food Technology
36	066	B.Sc Computer Science
37	067	BSc Animation and Gaming
38	055	BBA-LLB
39	2018	Pharm D

40	2019	M Pharmacy
41	2060	M.Sc (Finance and Control)
42	2210	M.Sc.(Applied Mathematics)
43	2220	M.Sc.(Physics)
44	2230	M.Sc.(Chemistry)
45	2240	M.A(English)
46	2510	Master of Business Administration
47	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	4	
10	B.Tech in Internet of Things	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 application (BCA)	3	10+2 or equivalent with at least 50% and must have qualified in KL entrance exam
3	Bachelor of science in Visual Communication (B.ScVc)	3	10+2 or equivalent with at least 55 % and must qualify in KL Entrance Exam or qualified any State Level Examsacross India

4	Bachelor of science in Animation and Gaming	3	10+2 or equivalent with at least 55 % and must qualify in KL Entrance Exam or qualified any State Level Examsacross India
5	Bachelor of Computer Science	3	10+2 or equivalent with at least 50% and must have qualified in KL entrance exam
6	Master of Arts (MA English)	2	Any Bachelor's degree excluding Bachelor of Fine Arts, with minimum of50% marks or equivalentCGPA
7	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.
8	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.
9	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.
10	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 ofBusiness 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	B.Sc Hotel Management	3	10+2 or equivalent with at least 55%.
4	B.Sc Food Technology	3	10+2 or equivalent with at least 55%.
5	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
6	Master of Science (Finance and Control)	2	Bachelor's degree with 55% marks or equivalent CGPA and Mathematics /Statistics as one of the course at 10+2 /UG.

College of Agriculture

S.no	Program	Duration (Years)	Eligibility
1	B.Sc 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	PHARMA. 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 7^{th} or 8^{th} 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

5.1General 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 WorkingHours

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

ClassEnvironment

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.

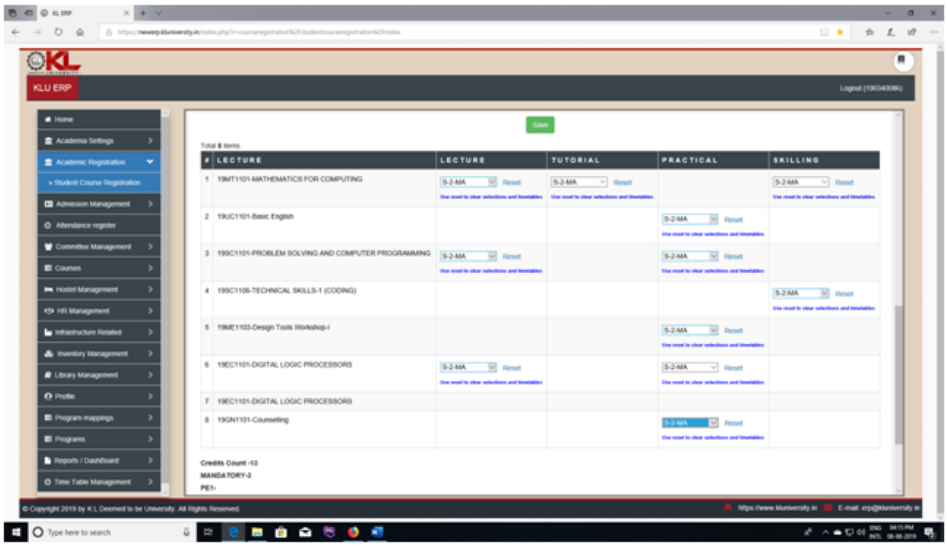
Students should always conduct themselves in a responsible and cautious manner. Risky behaviors such as pushing, running, jumping etc., are unwarranted.
Only materials required to complete and record the experiment instructions, (e.g. pencils or graph paper, etc.) should be brought into thelaboratory.
Equipment must be carefully handled to prevent breakage or damage, otherwise appropriate penalties/disciplinary-actionmaybelieved/imposed.
Lab station must be cleaned prior to leaving alab.
Any accident, no matter how small or big, must be reported to the concerned facultyimmediately.

RegistrationProcess

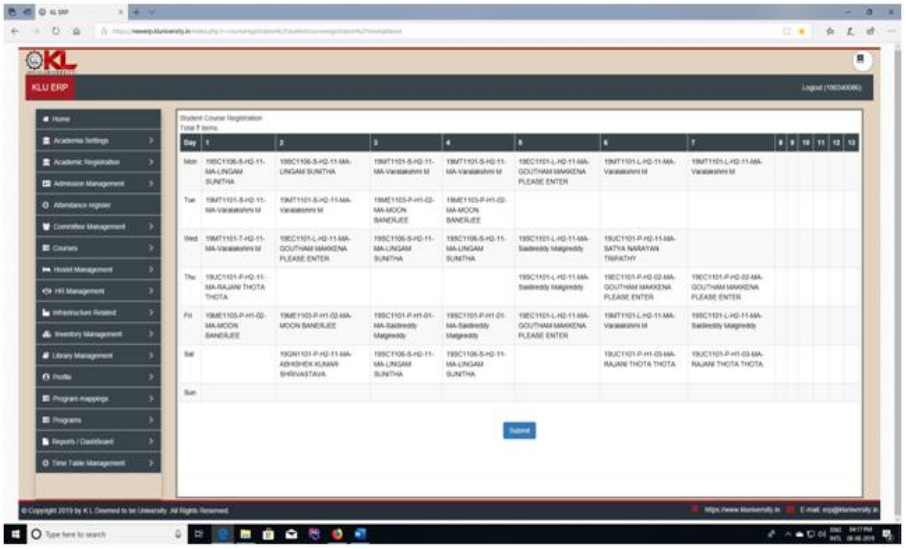
For every course, the student mustundertake the registration process prior to commencement of the coursework, based on the following conditions.
Registration into a course will be permitted only for such courses, which are offered by KLEF in thatsemester.
A student must clear the pre-requisite(s) if 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:

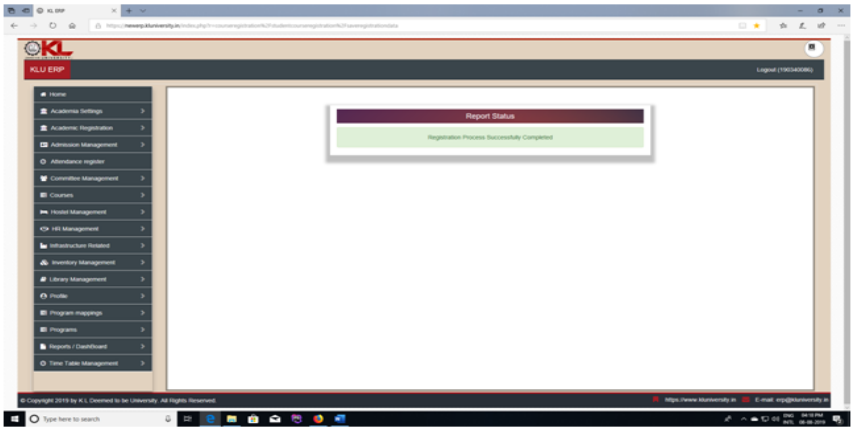
To complete the student registration, student login to new ERP portal with their valid login credentials. After login student should click on Academic Registrations Student Course Registration. Now Student can view the courses and sections in dropdown menus. Student can select the sections against the 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 students are admitted into 4- year full time B. Tech Programs as enlisted in this section. However, these academic regulations provide various flexibility in earning

a) Honors

b) Specialization and

c) Minor Degrees.

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 complete a minimum of five (5) Professional Elective Courses,out of which three (3) must be from 3 different specialization areas offered by the program. However, in case of the program offering less than 3 specialization areas, s/he can complete more than one professional elective course from each of the specialization area but must ensure that s/he has completed a minimum of one course from each specialization area offered by the program.
- Must successfully complete Minimum two (2) open electives courses
- Must successfully undertake specific trainings 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 students) in discipline domain areas, in addition to one from yoga / sports & games / fine arts.
- Must successfully complete the term paper
- Must successfully complete Social Internship and Technical Internship for minimum of 4 weeks duration.
- Must successfully complete project or practice school or Internship.
- Must have successfully taken social service activities for a minimum duration of 40 hours starting from 3rd semester onwards
- Must have successfully obtained a minimum CGPA of4.5 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.
- **B.Tech with Minors** can be awarded if students complete additional courses apart from their Core program and earn 20 credits.
- **B.Tech with Honors** 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. Students who have 8.5 CGPA and maintain the same in all consecutive semesters from their II year II semester are eligible for the degree award. In case a student fails to meet the CGPA requirement for Degree with Honors at any point after registration, s/he will be dropped from the list of students eligible for Degree with Honors and they will receive B.Tech Degree only. However such students will receive a separate grade sheet mentioning the additional courses completed by them.

The following are the list of B.Tech(Honors) programs offered by the University

1. Bachelor of Technology (Honors) in Biotechnology (BT)
2. Bachelor of Technology (Honors) in Civil Engineering (CE)
3. Bachelor of Technology (Honors) in Computer Science & Engineering (CSE)
4. Bachelor of Technology (Honors) in Electronics and Communication Engineering (ECS)
5. Bachelor of Technology (Honors) in Electrical and Electronics Engineering (EEE)

6. Bachelor of Technology (Honors) in Electronics and Computer Engineering (ECM)
7. Bachelor of Technology (Honors) in Mechanical Engineering (ME)

B.TECH DEGREE WITH SPECIALIZATION

B.Tech with Specialization degree can be awarded it Student completes five professional electives in the same track and/or earns minimum of 15 credits from the Professional elective courses. Must have completed term paper and Minor project in the same area of specialization; but this is to be done as part of the B. Tech Degree program requirement only. Attain a minimum CGPA of 6.75 at the end of the Program.

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

S. No.	Area of Specialization	Offered to the Department of
1	Genetic Engineering	BT
2	Industrial Biotechnology	BT
3	Bioinformatics	BT
4	Medical Biotechnology	BT
5	Structural Engineering	CE
6	Geotechnical Engineering	CE
7	Water & Environmental Engineering	CE
8	Construction Technology & Management	CE
9	Transportation Engineering	CE
10	Artificial Intelligence & Machine Learning	CS,EM, ME,AD,CI,EE
11	Cloud & Edge Computing	CS,EM, AD,CI
12	Network Security	CS,EC,EE,EM,AD,CI
13	Data Science And Big Data Analytics	CS,EC,EM,AD,CI,EE
14	Software Modelling &Devops	CS,EM, AD,CI
15	IOT	CS,CM,CI,AD,ME,EE
16	VlSI	EC,EE
17	Renewable energy & Smart cities	EC,ME,CE,EE
18	Signal Processing	EC
19	Robotics & Automation	EC,ME,EE
20	Bio-Medical Instrumentation	EC,EE,CM,ME
21	Rf & Microwave	EC
22	Data Communication	EC,EE,CM
23	Web Technologies	CS,CM,CI,AD
24	Industrial Automation	EE,ME
25	Green Energy Technologies	EC,CM,EE, ME
26	Smart Grid Technologies	EC,CM,EE
27	Electric Vehicle Technologies	EE,ME
28	Engineering Design	ME
29	Smart Manufacturing	ME
30	Automobile Engineering	ME
31	Autotronics	ME,EE, CS, EC
32	Product Design	ME
33	Autonomous Systems	AD,CI,ME
34	Geo-Spatial Data Analytics	AD,CI
35	Medical Intelligence	AD,CI
36	Iot Analytics	AD,CI
37	Distributed Ledger Analytics	AD,CI
38	Social & Digital Media Analytics	AD,CI

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

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

Degree Requirements for UG and PG programs

	PE	Skill	OE	ME	FL	Certificate on domain	Certificate on Sports	ITR/PS/PR/ termPaer	Stu dio	Hono rs	Speia lisati on	HS S	BS	ES	PC	FC	Total Credit s	Minimu m CGPA require d
Name of the program	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**		
Bachelor of Architecture	26	11	5	-	0	-	-	26		-	-			63	14		278	5.25
Bachelor of Arts	68	7						18		38		14	2		54		122	5.25
Bachelor of Computer	16	70	9					16				8			66		120	4.5
Bachelor of Business	18	21	3		0						7	8	2		29		144	4.75
Bachelor of Commerce (H)	40	33			2							16	5		84		149	5.25
B.Com with ACCA	40	15	6		2							12	5		11		181	5.25
Bachelor of Science(HM)	4	-			3			38		40		8			85		135	5.75
B Tech	15-18	0-8	3-9	3	2	3-4	1	13-19				12	23 -	18 -	38 -	0 -	160-164	4.75
Bachelor of Science –Visual Communications			4		2					40		6	4		109		121	5.0
Bachelor of Pharmacy	8	2	9					6				11	10		18		232	5
BSC Hons Agriculture	9											9			17		188	
B.Sc(Computer Science)	22							10				12	14		62		120	4.5
Master of Arts (English)	8							6				4			72		90	5
Master of Science (Chemistry)	9							6				2			82		99	5.5
Master of Science (Mathematics)	12	3	0	0				12				2			66		94	5.5
Master of Science (Physics)	9	9	0					10							69		99	5.5
Master of Science(Finance & Control)	42	6						6				2			99		112	5.5
Master of Business	30							15				6	7		46		104	5.5
M.Tech	12							42				32					84	5.5

Master of Pharmacy		19						30							48		97	5
Pharm.D								11				2	4		15		168	5
MCA	17							10				2			51		80	4.5

A. Professional electivecourses
B. Skillingcourse
C. Openelectives
D. Management electives
E. Foreign languageelective
F. Certificate course fordomain
G. Certificate course yoga /sports/finearts
H. Industrial training / term paper/ project / practiceschool
I. Studio
J. Honors
K. Specialization
L. Humanities & socialsciences
M. Basicsciences
N. Engineeringsciences
O. Professionalcore
P. Flexi-core

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. ProgramStructure

- An Academic Year is made of Two semesters each is of, approximately 16±1 week duration and each semester is classifiedas:
    - Odd Semester (July–December)
    - Even Semester (December –May).
- KLEF may offer summer term between May andJune.
- All courses are offered under three categories vis-à-vis. even, odd and dual semestercourses.
- Students have the flexibility to choose courses of their own choice prescribed by theKLEF.
- 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 degreeprogram/specialization).
- Every course has a Lecture-Tutorial-Practice-Skill (L-T/ST-P-S) component attached toit.
- Based upon the L-T-P-S structure the credits are allotted to a course using the followingcriteria.
    - Every Lecture / Tutorial hour is equivalent to onecredit.
    - Every Practical hour is equivalent to halfcredit.
    - Every skill-based practice hour is equivalent to quartercredit.
    - 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.

AuditCourses

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

InductionCourses:

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-Addedcourses:

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 professionalcourses.

CoursePrecedence

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.

7.2. Summer TermCourses

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 in
  clash in the 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 summerterm.
- 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.

PracticeSchool

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 SchoolDuration

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

a. Students who have not registered with placement (IRP) can only apply for PS- 1 in (VIIsemester).

b. 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.

7.4.3Guidelines

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.

Award of Degree

B.Tech, M.Tech, B.Arch, all B.sc and M.sc , Arts, B.com, BBA, MBA:

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

a. 5.5 ≤ CGPA < 5.75 will be awarded Passclass

b. 5.75 ≤ CGPA < 6.75 will be awardedSecond-class

c. 6.75 ≤ CGPA < 7.75 will be awarded Firstclass

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

5.0 ≤ CGPA < 5.5 will be awarded Passclass

5.5 ≤ CGPA < 6.5 will be awardedSecond-class

6.5≤ CGPA < 8.0 will be awarded Firstclass

CGPA ≥ 8.0 will be awarded First class withDistinction.

B.Pharmacy

5.0 ≤ CGPA ≤ 5.99 will be awardedSecond-class

6.0≤ CGPA ≤ 7.49 will be awarded Firstclass

CGPA ≥ 7.5 will be awarded First class withDistinction.

Architecture

5.5 ≤ CGPA ≤ 5.99. will be awarded Second-class

6.0≤ CGPA ≤ 7.49 will be awarded First class

CGPA≥ 7.5 will be awarded First class with Distinction

Agriculture

OGPA	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 Rules

The following Attendance Policy for promotion of every course

S.No	Program	Minimum Attendance % Required for promotion of every course
1	All Programs except BBA-LLB	85
	pharmacy	80
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.

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, >91is4marks 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.

AttendanceWaiver

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.

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.

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 followingreasons:
Shortfall ofattendance
Acts ofindiscipline
Withdrawal from acourse

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

RemedialClasses:
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 thePrincipal.
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 regularclasses held till the Sem-In exam-I.
Remedial classes MUST NOT be scheduled during regular class work hours. The following ALMs are

recommended for slowlearners:
One minutepaper
Think/Plan/Share
Role play
Focused listening and Listeningforspecifics
Just-in timeteaching
Models
Sheets
Hands onactivity
Course coordinators may also include alternate Active learning Methods 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 Exanimation (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 theVice-Chancellor.

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

Semester-InEvaluation

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

The process of evaluation is continuous throughout thesemester.

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/SchoolName	Semester-In Evaluation (Weightage %) (A)	Sem End Examination (Weightage %) (B)	Minimum equirement 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 B tech 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 thesemester.

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.

Semester EndExamination

f. 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.

g. 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.

h. 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 theresults.

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.

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.

AbsoluteGrading

The list of absolute grades and its connotation are given below for B.Tech,,M.Tech, M.Sc, BCA, BA, B.Sc HM, BBA, B.Com(Hon's), MBA programs

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
Pass	B	6	50 - 59
Fail	F	0	0 – 49
Fail	AB	0	Absent

School Of Architecture (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

Pass	B	6	50 - 59
Fail	C	5	46 - 50
Fail	F	0	0 – 49
Fail	AB	0	Absent

College of Pharmacy (B.Pharm)

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
Fail	AB	0	Absent

For BBA LL.B& LL.B

Grade	Qualitative Meaning	Grade Point attached
X	Excellent	10
A	Very Good	9
B	Good	8
C	Fair	7
D	Satisfactory	6
E	Pass	5
F	Fail	0

Other Programs

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
Failed	F	0	0 – 39
Absent	AB	0	Absent

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 from then.... <

Relative grading is not applicable for B.Arch& B. Pharmacy programs.

SGPA &CGPA

The SGPA is the ratio of sum of the product of the number of credits 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.

$$SGPA(S_i) = \frac{\sum C_i * G_i}{\sum C_i}$$

The CGPA is also calculated in the same manner taking into account all the courses undergone by a student over all the semesters of aprogram,

$$CGPA(S_i) = \frac{\sum C_i * S_i}{\sum C_i}$$

Where 'S'iis 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 thetranscripts.

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 has toreappear 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 grade sheet indicating the SGPA and CGPA of the student. However, grade sheet will not be issued to the student if he/she has any outstandingdues.

Illustration of Computation of SGPA AND CGPA

Computation of SGPA and CGPA Illustration for SGPA

COURSE	CREDITS	GRADE LETTER	GRADE POINT	CREDITPOINT (Credit xGrade)
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

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

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.

Course Based DetentionPolicy

In any course, a student mustmaintain a minimum attendance as per the attendance policy referred in Chapter 5.1 and 5.4, 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
PROMOTION

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:

a. Top 1% (based on CGPA until 2nd semester) students will be permittedto change to any branch of their choice within the programdiscipline.

b. 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.

c. All changes of Branch will be effective from third semester. Change ofbranch shall not be permittedthereafter.

d. 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.

e. Students in clause a and b may be permitted subject to the availability of seats in the desiredbranch.

Credit transfer

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,astudent,afterseekingtransferfromKLEFcanreturntoKLEF 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.

Credit Transfer ThroughMOOCs:

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.

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.

Promotion Policy

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

SlNo	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, MA- English, M.Sc Chemistry, M.Sc Applied Mathematics, M.Sc Physics)	**For BCA,** A student is eligible for provisional promotion to a higher semester if S/he: Earns a minimum of 28 credits prior to registration of III semester. For remaining programs, Promotion Policy is Not Applicable.
3	Business School (BBA, B.Com (H), B.Sc HM, MBA, M.Sc (Finance &Control)	**NA**

4	College of Engineering (B.Tech,M.Tech)	For B.Tech: A student is eligible for provisional promotion to a higher semester ifs/he: 1. Earns a minimum of 40 credits prior to registration of Vsemester 2. Earns a minimum of 70 credits prior to registration of VIIsemester. **Note:** 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. For M.Tech, there is no Promotion Policy.
5	Fine Arts (B.Sc-VC)	**NA**
6	College ofPharmacy (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)	NA
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

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.

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.

Backlog Courses

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

Rustication

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

Award ofMedals

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

CHAPTER 12
ENGINEERING UG PROGRAM STRUCTURE

B.Tech 2022-23 admitted batch Course Structure																						
S. No	**Course Code**	**Course Title**	**Category**	**L**	**T**	**P**	**S**	**Cr**	**CH**	**Pre-requisite**	**Offered by**	**Offered To**	**AI DS**	**BT**	**CE**	**CSE**	**CSIT**	**ECE**	**ECS**	**EEE**	**IOT**	**ME**
1	22UC1101	Integrated Professional English	HSS	0	0	4	0	2	4	Nil	English	AI&DS,BT,CE,CSE, CSIT,ECE,ECS,EEE, IOT,ME	2	2	2	2	2	2	2	2	2	2
2	22UC1202	English Proficiency	HSS	0	0	4	0	2	4	Nil	English	AI&DS,BT,CE,CSE, CSIT,ECE,ECS,EEE, IOT,ME	2	2	2	2	2	2	2	2	2	2
3	22UC2103	Essential Skills for Employability	HSS	0	0	4	0	2	4	Nil	English	AI&DS,BT,CE,CSE, CSIT,ECE,ECS,EEE, IOT,ME	2	2	2	2	2	2	2	2	2	2
4	22UC2204	Corporate Readiness Skills	HSS	0	0	4	0	2	4	Nil	English	AI&DS,BT,CE,CSE, CSIT,ECE,ECS,EEE, IOT,ME	2	2	2	2	2	2	2	2	2	2
5	22UC0010	Universal Human Values & Professional Ethics	HSS	2	0	0	0	2	2	Nil	BES-1	AI&DS,BT,CE,CSE, CSIT,ECE,ECS,EEE, IOT,ME	2	2	2	2	2	2	2	2	2	2
6	22UC0007	Indian Heritage and Culture	HSS	2	0	0	0	0	2	Nil	BA-IAS	AI&DS,BT,CE,CSE, CSIT,ECE,ECS,EEE, IOT,ME	0	0	0	0	0	0	0	0	0	0
7	22UC0008	Indian Constitution	HSS	2	0	0	0	0	2	Nil	LAW	AI&DS,BT,CE,CSE, CSIT,ECE,ECS,EEE, IOT,ME	0	0	0	0	0	0	0	0	0	0
8	22UC0009	Ecology & Environment	HSS	2	0	0	0	0	2	Nil	Chemistry	AI&DS,BT,CE,CSE, CSIT,ECE,ECS,EEE, IOT,ME	0	0	0	0	0	0	0	0	0	0
9	22UC0011	Gender Sensitization	HSS	2	0	0	0	2	2	Nil	FED	AI&DS,BT,CE,CSE, CSIT,ECE,ECS,EEE, IOT,ME	2	2	2	2	2	2	2	2	2	2
												Total Credits	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**

10	22MT2102	Discrete Structures	BS	2	1	0	0	3	3	Nil	Mathematics	AI&DS, CSIT,CSE	3			3	3					
11	22MT2109	Mathematics-3	BS	3	0	0	0	3	3	Nil	Mathematics	ECE,IOT						3			3	
12	22MT3101	Probability and Statistics	BS	2	0	2	0	3	4	Nil	Mathematics	ECS							3			
13	22MT1109	Probability, Statistics and Numerical Methods	BS	3	1	0	0	4	4	Nil	Mathematics	CE			4							
14	22MT1101	Mathematics for Computing	BS	2	2	0	2	4.5	6	Nil	Mathematics	AI&DS,BT,CE,CSE, CSIT,ECE,ECS,EEE, IOT,ME	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
15	22ME2209	Numerical Computation for Mechanical Engineers	BS	3	0	2	0	4	5	Nil	ME	ME										4
16	22MT2102	Mathematics for Engineers	BS	2	1	0	0	3	3	Nil	Mathematics	CE,ECE,ECS,EEE, IOT, ME			3			3	3	3	3	3
17	22PH1101	Science Elective - 1	BS	3	0	2	0	4	4	Nil	Physics	AI&DS,BT,CE,CSE, CSIT,ECE,ECS,EEE, IOT,ME	4	4	4	4	4	4	4	4	4	4
18	22UC1203	Design Thinking and Innovation	BS	1	0	0	4	2	5	Nil	DTI	AI&DS,BT,CE,CSE, CSIT,ECE,ECS,EEE, IOT,ME	2	2	2	2	2	2	2	2	2	2
19	22CY1001	Science Elective - 2	BS	3	0	2	0	4	5	Nil	Chemistry	AI&DS,BT,CE,CSE, CSIT,ECE,ECS,EEE, IOT,ME	4	4	4	4	4	4	4	4	4	4
20	22AD2104	Probability and Statistics for Data Science	BS	2	1	0	0	3	3	Nil	Mathematics	AI & DS	3									
21	22CI2102	Probability ,Statistics and Queing Theory	BS	2	2	0	0	4	4	Nil	Mathematics	CSIT, CSE				4	4					
22	22AD2206	Mathematical Programming	BS	2	1	0	0	3	3	Nil	Mathematics	AI & DS	3									
23	22CI2208	Mathematical Programming	BS	2	2	0	0	4	8	Nil	Mathematics	CSE, CSIT				4	4					
24	22MT2011	BioStatistics	BS	2	1	0	0	3	3	Nil	Mathematics	BT		3								

25	22MT1011	Mathematical Methods	BS	2	1	0	0	3	3	Nil	Mathematics	BT		3								
26	22EE2104	Mathematical transforms for Signal processing	BS	2	1	0	0	3	3	Nil	EEE	EEE								3		
27	22UC3105	Problem Solving Skills-I	BS	0	0	2	2	1.5	4	Nil	CSS	AI&DS,BT,CE,CSE, CSIT,ECE,ECS,EEE, IOT,ME	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
28	22UC3206	Problem Solving Skills-II	BS	0	0	2	2	1.5	4	Nil	CSS	AI&DS,BT,CE,CSE, CSIT,ECE,ECS,EEE, IOT,ME	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
												Total Credits	**26.5**	**23.5**	**24.5**	**28.5**	**28.5**	**23.5**	**23.5**	**23.5**	**23.5**	**24.5**
29	22PH1005	Engineering Physics	**SCIENCE ELECTIVE - 1**	3	0	2	0	4	5	Nil	Physics	BT, CSE										
30	22PH1004	Solid State Physics		3	0	2	0	4	5	Nil	Physics	ECM,ECE,IOT,CSE										
31	22PH1008	Physics For Electronics Engineering		3	0	2	0	4	5	Nil	Physics	ECE,IOT,CSE										
32	22PH1010	Mechanics		3	1	0	0	4	4	Nil	BES-2	ME,CE										
33	22EE2103	Electromagnetic Fields and Engineering Materials		3	1	0	0	4	4	Nil	EEE	EEE										
34	22PH4101	Quantum Physics for engineers		3	0	0	0	3	3	Nil	Physics	CSIT, CSE										
35	22PH1211	Semi Conductor Physics		3	1	0	0	4	4	Nil	Physics	ECS										
36	22PH2101	Quantum Mechanics for Engineers		3	1	0	0	4	4	Nil	Physics	ECE, IOT										
37	22CY1001	Engineering Chemistry	**SCIENCE ELECTIVE - 2**	3	0	2	0	4	5	Nil	Chemistry	CE,CSE,EEE,BT, ECS,ME,ECE,IOT										
38	22CY1003	Chemistry and Bioinformatics for Engineers		3	0	2	0	4	5	Nil	Chemistry	CSE,ECE,IOT										
39	22CY1004	Organic Electronics		3	0	2	0	4	5	Nil	Chemistry	CSE,ECE,IOT										

40	22CY1005	Chemistry for Engineers		3	0	0	0	3	3	Nil	Chemistry	CSIT										
41	22SC1101	Computational Thinking for Structured Design	ES	3	0	2	6	5.5	11	Nil	CSE (BES-II)	AI&DS,BT,CE,CSE, CSIT,ECE,ECS,EEE, IOT,ME	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
42	22SC2103E	Computational thinking for Object Oriented Programming	ES	2	0	4	0	4	6	Nil	EEE	EEE								4		
43	22EL2102	Object Oriented Programming through Java	ES	2	0	2	4	4	8	22SC 1101	ECS	ECS							4			
44	22SC2103B	Object Oriented Programming	ES	3	0	2	0	4	5	Nil	CSE (BES-2)	BT		4								
45	22AD1202	Object Oriented Programming System	ES	3	0	2	4	5	9	Nil	AI&DS	AI&DS	5									
46	22ME1103	Design Tools Workshop	ES	0	0	4	0	2	4	Nil	BES-II	AI&DS,BT,CE,CSE, CSIT,ECE,ECS,EEE, IOT,ME	2	2	2	2	2	2	2	2	2	2
47	22SC1209	IOT Workshop	ES	0	0	4	0	2	4	Nil	BES-I	AI&DS,BT,CE,CSE, CSIT,ECE,ECS,EEE, IOT,ME	2	2	2	2	2	2	2	2	2	2
48	22SC1202	Design of Data Structures	ES	3	0	2	4	5	9	22SC 1101	CSE (BES-2)	AI&DS,BT,CE,CSE, CSIT,ECE,EEE,IOT, ME	5	5	5	5	5	5		5	5	5
49	22SC1210	Data Structures	ES	3	0	2	4	5	9	22SC 1101	ECS	ECS							5			
50	22EC1101	Digital Logic & Processors	ES	3	0	2	0	4	5	Nil	ECE	AI&DS,CSE,CSIT, EEE, ECE,ECS,IOT	4			4	4	4	4	4	4	
51	22ME1002	Engineering Graphics and 2D Modeling	ES	1	0	4	0	3	5	Nil	ME	ME										3
52	22ME2104	3D Modeling and Physical Prototyping	ES	0	0	4	0	2	4	22ME 1002	ME	ME										2
53	22EE2205	Circuits and Electronics	ES	3	0	2	0	4	5	Nil	EEE	ME										4
54	22ME2105	Thermodynamics	ES	3	0	0	0	3	3	Nil	ME	ME										3

55	22ME2007	Material Technology	ES	2	0	0	0	2	2	Nil	ME	ME										2
56	22ES2103	Biochemical Thermodynamics	ES	3	1	0	0	4	3	Nil	BT	BT		4								
57	22ES2101	Process Engineering Principles	ES	2	1	2	0	4	5	Nil	BT	BT		4								
58	22ES2102	Transport Processes In Biological Systems	ES	3	0	2	0	4	4	Nil	BT	BT		4								
59	22CE1002	Engineering Graphics for Civil Engineers	ES	2	0	4	0	4	2	Nil	CE	CE			4							
60	22EC1202	Computer Organization & Architecture	ES	2	0	0	0	2	2	22EC 1101	ECE	AI&DS,CSE,CSIT, ECE,ECS,EEE,IOT	2			2	2	2	2	2	2	
61	22EC1203	Design of Basic Electronic Circuits	ES	3	0	0	0	3	3	Nil	ECE	ECE, IOT, ECS						3	3		3	
62	22EE1201	Basic Electrical and Electronic Engineering	ES	3	1	2	0	5	6	NIL	EEE	EEE								5		
63	22EC1102	Introduction to Electronic Systems and IOT	ES	1	0	2	0	2	3	Nil	ECE	CSE,CSIT				2	2					
												Total Credits	**25.5**	**30.5**	**18.5**	**22.5**	**22.5**	**23.5**	**27.5**	**29.5**	**23.5**	**28.5**
64	22AD2105	Software Engineering	PC	3	0	0	0	3	3	Nil	AIDS	AIDS	3									
65	22AD2103	Java Programming	PC	2	0	0	4	3	6	Nil	AIDS	AIDS	3									
66	22AD2109	Design and anlaysis of algorithms	PC	2	0	2	2	3.5	8	Nil	AIDS	AIDS	3.5									
67	22AD2101	Artificial Intelligence	PC	2	0	2	0	3	4	Nil	AIDS	AIDS	3									
68	22AD2107	Operating Systems	PC	3	0	0	2	3.5	5	Nil	AIDS	AIDS	3.5									
69	22AD2102	Data Management	PC	2	0	2	0	3	4	Nil	AIDS	AIDS	3									
70	22AD2203	Data Warehouse and Data Mining	PC	3	0	2	0	4	5	22SC 1202	AIDS	AIDS	4									
71	20AD2201	Computer Networks and Security	PC	3	0	2	0	4	5	Nil	AIDS	AIDS	4									
72	22AD2204	Enterprise Software Development	PC	2	0	2	2	3.5	6	Nil	AIDS	AIDS	3.5									

73	22AD2202	Data Science & Visualization	PC	3	0	0	2	3.5	5	22MT 1101	AIDS	AIDS	3.5									
74	22AD2205	Machine Learning	PC	3	0	0	2	3.5	5	22MT 1101	AIDS	AIDS	3.5									
75	22AD3102	Cloud Computing	PC	3	0	2	0	4	5	Nil	AIDS	AIDS	4									
76	22AD3101	Automata Theory and Compiler Design	PC	3	0	0	0	3	3	22MT 1101	AIDS	AIDS	3									
77	22AD3104	Deep Learning	PC	3	0	0	2	3.5	5	22AD 2205	AIDS	AIDS	3.5									
78	22BT1211	Cell Biology	PC	3	0	0	0	3	3	Nil	BT	BT		3								
79	22BT2105	Biochemistry	PC	3	0	2	0	4	5	Nil	BT	BT		4								
80	22BT2108	Molecular Biology	PC	3	0	0	0	3	3	Nil	BT	BT		3								
81	22BT2109	Immunology	PC	3	0	2	0	4	5	Nil	BT	BT		4								
82	22BT3110	Bioinformatics	PC	3	0	2	0	4	5	Nil	BT	BT		4								
83	22BT3111	Genetic Engineering	PC	3	0	2	0	4	5	Nil	BT	BT		4								
84	22BT3112	Fermentation Technology	PC	3	0	2	0	4	5	Nil	BT	BT		4								
85	22BT3113	Biochemical Reaction Engineering	PC	3	0	2	0	4	5	Nil	BT	BT		4								
86	22BT3211	Plant and Animal Biotechnology	PC	3	0	2	0	4	5	Nil	BT	BT		4								
87	22BT3212	Downstream Processing	PC	3	0	2	0	4	5	Nil	BT	BT		4								
88	22BT3213	Genetics	PC	3	0	0	0	3	3	Nil	BT	BT		3								
89	22BT2106	Microbiology	PC	3	0	2	0	4	5	Nil	BT	BT		4								
90	22BT2107	Bioanalytical Techniques	PC	3	0	2	0	4	5	Nil	BT	BT		4								
91	22CE2101	Solid Mechanics	PC	3	0	2	0	4	5	Nil	CE	CE			4							
92	22CE2102	Fluid Mechanics & Hydraulics	PC	3	0	2	0	4	5	Nil	CE	CE			4							

93	22CE2103	Surveying	PC	3	0	2	0	4	5	Nil	CE	CE			4							
94	22CE2201	Structural Analysis	PC	3	1	0	0	4	4	22CE 2101	CE	CE			4							
95	22CE2202	Building Planning, Drawing & Construction Management	PC	3	0	2	0	4	5	Nil	CE	CE			4							
96	22CE2203	Construction Materials & Concrete Technology	PC	3	0	2	0	4	5	Nil	CE	CE			4							
97	22CE2204	Environmental Engineering	PC	3	0	2	0	4	5	Nil	CE	CE			4							
98	22CE2205	Geology	PC	3	0	2	0	4	5	Nil	CE	CE			4							
99	22CE2206	Geotechnical Engineering	PC	3	0	2	0	4	5	Nil	CE	CE			4							
100	22CE3101	Design of Reinforced Concrete Structures	PC	3	0	2	0	4	5	Nil	CE	CE			4							
101	22CE3103	Transportation Engineering	PC	3	0	2	0	4	5	Nil	CE	CE			4							
102	22CE3102	Water Resources Engineering	PC	3	1	0	0	4	4	Nil	CE	CE			4							
103	22CE3201	Design Of Steel Structures	PC	3	1	0	0	4	4	Nil	CE	CE			4							
104	22CE3202	Quantity Surveying and Estimation	PC	3	0	2	0	4	5	Nil	CE	CE			4							
105	22CE4101	Comprehensive Exam	PC	0	0	6	0	3	6	Nil	CE	CE			3							
106	22CS2108	Enterprise Programming	PC	2	0	2	4	4	8	22SC 1101	CSE	CSE				4						
107	22CS2109	Operating Systems	PC	2	0	2	0	3	4	22EC 1202	CSE	CSE				3						
108	22CS2215	Automata Theory & Formal Languages	PC	2	1	0	0	3	3	22SC 1203	CSE	CSE				3						
109	22SC1203	Computational Thinking for Object Oriented Design	PC	2	0	2	4	4	8	22SC 1210	CSE	CSE				4						
110	22CS2116	Advanced Object Oriented Programming	PC	2	0	2	4	4	8	Nil	CSE	CSE				4						

111	22CS2110	Database Management Systems	PC	2	0	2	0	3	4	DCS	CSE	CSE				3						
112	22CS2111	Software Engineering	PC	2	1	0	0	3	3	Nil	CSE	CSE				3						
113	22CS2212	Computer Networks & Security	PC	2	2	0	0	4	4	22SC 1210	CSE	CSE				4						
114	22CS2213	AI for Data Science	PC	2	0	2	0	3	4	22SC 1210	CSE	CSE				3						
115	22CS2214	Design & Analysis of Algorithms	PC	2	0	2	4	4	8	22SC 1203	CSE	CSE				4						
116	22CS4115	Parallel & Distributed Computing	PC	2	1	0	0	3	3	22CS 2109	CSE	CSE				3						
117	22SC1203	Computational Thinking for Object Oriented Design	PC	2	0	2	4	4	8	22SC 1101	CSIT	CSIT					4					
118	22CI2101	Enterprise Programming	PC	2	0	2	4	4	8	Nil	CSIT	CSIT					4					
119	22CI2103	Operating Systems	PC	2	0	2	0	3	4	22EC 1203	CSIT	CSIT					3					
120	22CI2104	Software Engineering	PC	2	2	0	0	4	4	Nil	CSIT	CSIT					4					
121	22CI2105	Database Management Systems	PC	2	0	2	0	3	4	22SC 1202	CSIT	CSIT					3					
122	22CI2207	Design & Analysis of Algorithms	PC	2	0	2	4	4	8	22SC 1202	CSIT	CSIT					4					
123	22CI2209	Introduction to AI & DS	PC	2	0	2	0	3	4	22SC 1202	CSIT	CSIT					3					
124	22CI2210	Computer Networks & Security	PC	2	2	0	0	4	4	Nil	CSIT	CSIT					4					
125	22CI2211	Parallel & Distributed Computing	PC	2	1	0	0	3	3	22CI 2103	CSIT	CSIT					3					
126	22CI3113	Automata Theory & Formal Languages	PC	2	1	0	0	3	3	22MT 1202	CSIT	CSIT					3					
127	22CI3114	Management Information Systems	PC	2	2	0	0	4	4	Nil	CSIT	CSIT					4					
128	22EC2104	Electronic Devices & Circuit Design	PC	3	0	2	2	4.5	7	Nil	ECE	ECE, IOT						4.5			4.5	

129	22EC2105	Communication Signals & System Design	PC	3	1	0	0	4	4	Nil	ECE	ECE						4				
130	22EC2106	Embedded Systems Design	PC	3	0	2	2	4.5	7	Nil	ECE	ECE						4.5				
131	22EC2107	AI, ANN Tools and Applications	PC	3	0	0	2	3.5	3	Nil	ECE	ECE, IOT						3.5			3.5	
132	22EC2208	Analog and Digital Communication	PC	3	0	3	0	4.5	6	Nil	ECE	ECE, IOT						4.5			4.5	
133	22EC2209	Electomagnetic Waves & Transmission Lines	PC	3	1	0	0	4	4	Nil	ECE	ECE						4				
134	22EC2210	Data Networks & Protocols	PC	3	0	2	0	4	5	Nil	ECE	ECE, ECS, IOT						4	4		4	
135	22EC2211	VLSI Design	PC	3	0	2	0	4	5	Nil	ECE	ECE						4				
136	22EC3112	Digital Signal Processing	PC	3	0	2	0	4	5	Nil	ECE	ECE						4				
137	22EC3213	Control Systems	PC	3	1	0	0	4	4	Nil	ECE	ECE						4				
138	22CS3214	OOPS	PC	3	0	2	0	4	5	Nil	CSE	ECE, IOT						4			4	
139	22EC2104	Electronic Devices & Circuit Design	PC	3	0	2	2	4.5	7	22EC 1101	ECS	ECS							4.5			
140	22EL3201	Signal Analysis and Communication Systems	PC	2	0	2	0	3	4	Nil	ECS	ECS							3			
141	22EL2101	Operating Systems	PC	3	0	2	0	4	5	22EC 1202	ECS	ECS							4			
142	22EL2202	Embedded Systems Design	PC	2	0	2	0	3	4	Nil	ECS	ECS							3			
143	22EL2203	Database Management Systems	PC	2	0	2	4	4	8	Nil	ECS	ECS							4			
144	22EL3101	VLSI Design	PC	2	0	2	2	3.5	6	Nil	ECS	ECS							3.5			
145	22EL2104	Web application Development	PC	2	0	2	4	4	8	22EL 2102	ECS	ECS							4			
146	22EL3102	Data Science	PC	2	0	2	4	4	8	22MT 3101	ECS	ECS							4			
147	22EL3103	Software Engineering	PC	2	2	0	0	3	3	Nil	ECS	ECS							3			

148	22EL3104	Artificial Intelligence	PC	2	0	2	0	3	4	NIl	ECS	ECS							3			
149	22EL3202	Machine Learning	PC	2	0	2	2	3.5	6	22MT 3101	ECS	ECS							3.5			
150	22EL3204	Deep Learning	PC	2	0	2	2	3.5	6	Nil	ECS	ECS							3.5			
151	22EE2203	Electrical Power Generation, Transmission and Distribution	PC	3	0	0	0	3	3	Nil	EEE	EEE								3		
152	22EE2101	Electrical Circuits	PC	3	0	2	0	4	5	Nil	EEE	EEE								4		
153	22EE2102	Electrical Machines	PC	3	0	2	0	4	5	Nil	EEE	EEE								4		
154	22EE2201	Analog Electronics	PC	3	1	2	0	5	6	Nil	EEE	EEE								5		
155	22EE3103	Power System Analysis	PC	3	0	0	0	3	3	Nil	EEE	EEE								3		
156	22EE2202	Industrial Applications of Electrical Machines	PC	3	0	2	0	4	5	22EE 2102	EEE	EEE								4		
157	22EE2204	Power Electronics	PC	3	0	2	0	4	5	22EE 2101	EEE	EEE								4		
158	22EE3101	Control Systems	PC	3	0	2	0	4	5	Nil	EEE	EEE								4		
159	22EE3202	Power System Protection and Control	PC	3	0	2	0	4	5	Nil	EEE	EEE								4		
160	22EE3102	Measurements and Instrumentation	PC	3	0	2	0	4	5	Nil	EEE	EEE								4		
161	22EE3104	AI Techniques for Electrical Engineering	PC	3	0	2	0	4	5	Nil	EEE	EEE								4		
162	22EE3201	Embedded Controllers & Applications	PC	3	0	2	0	4	5	Nil	EEE	EEE								4		
163	22IN2101	Processors and Controllers	PC	3	0	2	0	4	5	Nil	IOT	IOT									4	
164	22IN2102	Sensors and Actuators	PC	3	0	2	0	4	5	Nil	IOT	IOT									4	
165	22IN2103	Data Science and Data Analytics	PC	3	0	2	0	4	5	Nil	IOT	IOT									4	
166	22IN2202	IoT Principles & Architecture	PC	3	0	0	0	3	3	Nil	IOT	IOT									3	

167	22IN2201	Embedded Systems Design	PC	3	0	2	2	4.5	7	Nil	IOT	IOT									4.5	
168	22IN3101	Cloud Computing for IoT	PC	3	0	2	0	4	5	Nil	IOT	IOT									4	
169	22IN3201	Internet Programming and Web Technologies	PC	3	0	2	0	4	5	Nil	IOT	IOT									4	
170	22ME2106	Fluid Mechanics & Hydraulic machines	PC	3	1	2	0	5	6	Nil	ME	ME										5
171	22ME2210	Analysis of Thermal Systems	PC	3	1	0	4	5	8	22ME 2105	ME	ME										5
172	22ME3115	Heat Transfer	PC	3	0	2	0	4	5	Nil	ME	ME										4
173	22ME2101	Mechanics of Solids	PC	3	0	2	0	4	5	22PH 1010	ME	ME										4
174	22ME2208	Mechanical Engineering Design & Innovation	PC	2	0	0	4	3	6	22ME 2101	ME	ME										3
175	22ME2211	Kinematics of Machines	PC	2	0	2	0	3	4	22PH 1010	ME	ME										3
176	22ME3118	Dynamics of Machines	PC	2	0	0	0	2	2	22PH 1010	ME	ME										2
177	22ME3113	Machine Design	PC	3	1	0	4	5	8	22ME 2208	ME	ME										5
178	22ME2107	Manufacturing Processes	PC	2	0	2	0	3	4	Nil	ME	ME										3
179	22ME2212	Manufacturing Technology	PC	3	0	2	0	4	5	Nil	ME	ME										4
180	22ME3116	Optimization Techniques	PC	2	0	0	0	2	2	Nil	ME	ME										2
181	22ME4120	Instrumentation & Control	PC	2	0	2	0	3	4	Nil	ME	ME										3
182	22ME3119	Robotics	PC	2	0	0	0	2	2	Nil	ME	ME										2
183	22ME3114	Industry 4.0 & Design of Cyber Physical Systems	PC	2	0	0	4	3	6	Nil	ME	ME										3
												Total Credits	**48**	**49**	**59**	**38**	**39**	**45**	**47**	**47**	**48**	**48**

184	PE-1	Professional Elective-1	PE	3	0	0	0	3	3	Nil	All	AI&DS,BT,CE,CSE, CSIT,ECE,ECS,EEE, IOT,ME	3	3	3	4	4	3	3	3	3	3
185	PE-2	Professional Elective-2	PE	2	0	0	4	3	6	Nil	All	AI&DS,BT,CE,CSE, CSIT,ECE,ECS,EEE, IOT,ME	3	3	3	3	3	3	3	3	3	3
186	PE-3	Professional Elective-3	PE	2	0	2	0	3	4	Nil	All	AI&DS,BT,CE,CSE, CSIT,ECE,ECS,EEE, IOT,ME	3	3	3	4	4	3	3	3	3	3
187	PE-4	Professional Elective-4	PE	1	0	2	4	3	7	Nil	All	AI&DS,BT,CE,CSE, CSIT,ECE,ECS,EEE, IOT,ME	3	3	3	3	3	3	3	3	3	3
188	PE-5	Professional Elective-5	PE	1	1	2	0	3	4	Nil	All	AI&DS,BT,CE,CSE, CSIT,ECE,ECS,EEE, IOT,ME	3	3	3	3	3	3	3	3	3	3
189	PE-6	Professional Elective-6	PE	2	0	2	0	3	4	Nil	ECS	ECS							3			
												Total Credits	**15**	**15**	**15**	**17**	**17**	**15**	**18**	**15**	**15**	**15**
190	OE-1	Open Elective-1	OE	3	0	0	0	3	3	Nil	All	AI&DS,BT,CE,CSE, CSIT,ECE,ECS,EEE, IOT,ME	3	3	3	3	3	3	3	3	3	3
191	OE-2	Open Elective-2	OE	3	0	0	0	3	3	Nil	All	AI&DS,BT,CE,CSE, CSIT,ECE,ECS,EEE, IOT,ME		3	3	3	3	3	3	3	3	3
192	OE-3	Open Elective-3	OE	3	0	0	0	3	3	Nil	All	AI&DS,BT,CE,CSE, CSIT,ECE,ECS,EEE, IOT,ME		3	3	3	3	3	3	3	3	3
193	FL	Foreign Language Elective	OE	2	0	0	0	2	2	Nil	DFL	AI&DS,BT,CE,CSE, CSIT,ECE,ECS,EEE, IOT,ME	2	2	2	2	2	2	2	2	2	2
194	ME	Management Elective	OE	3	0	0	0	3	3	Nil	MBA	AI&DS,BT,CE,CSE, CSIT,ECE,ECS,EEE, IOT,ME	3	3	3	3	3	3	3	3	3	3
												Total Credits	**08**	**14**	**14**	**14**	**14**	**14**	**14**	**14**	**14**	**14**

195	22TS2101	Technical Skilling 1-(Python Full Stack Development)	TS	0	0	2	4	2	6	Nil	CSE	CSE				2						
196	22TS2106	Technical Skilling 1-(Python Full Stack Development)	TS	0	0	2	4	2	6	Nil	CSIT	CSIT					2					
197	22TS2202	Technical Skilling 2-(Mern Stack Web Development)	TS	0	0	2	4	2	6	Nil	CSE	CSE				2						
198	22TS2212	Technical Skilling 2-(Mern Stack Web Development)	TS	0	0	2	4	2	6	Nil	CSIT	CSIT					2					
199	22TS3103	Technical Skilling 3-(Java Full Stack Development + MICROSERVICES)	TS	0	0	2	4	2	6	Nil	CSE	CSE				2						
200	22TS3115	Technical Skilling 3-(Java Full Stack Development+ MICROSERVICES)	TS	0	0	2	4	2	6	Nil	CSIT	CSIT					2					
201	22TS3204	Technical Skilling 4-(Web Architecting on Cloud for Developers)	TS	0	0	2	4	2	6	Nil	CSE	CSE				2						
202	22TS3216	Technical Skilling 4-(Web Architecting on Cloud for Developers)	TS	0	0	2	4	2	6	Nil	CSIT	CSIT					2					
203	22TS3101	Technical Proficiency-1	TS	0	0	0	8	2	8	Nil	AIDS	AIDS	2									
204	22TS3202	Technical Proficiency-2	TS	0	0	0	8	2	8	Nil	AIDS	AIDS	2									
												Total Credits	**4**	**0**	**0**	**8**	**8**	**0**	**0**	**0**	**0**	**0**

205	FC-1	Flexi-Core-1	FC	2	0	2	0	3	4	Nil	AIDS, CSE,CSIT,ECE, IOT	AIDS, CSE,CSIT,ECE,IOT	3			3	3	4			4	
206	FC-2	Flexi-Core-2	FC	2	0	2	0	3	4	Nil	CSE,CSIT,ECE, IOT	CSE,CSIT,ECE,IOT				3	3	4			4	
												Total Credits	**3**	**0**	**0**	**6**	**6**	**8**	**0**	**0**	**8**	**0**
207	22IE2040	Social Internship	PR	0	0	0	4	1	4	Nil	All	AI&DS,BT,CE,CSE, CSIT,ECE,ECS,EEE, IOT,ME	1	1	1	1	1	1	1	1	1	1
208	22IE3041	Technical Internship	PR	0	0	0	4	1	4	Nil	All	AI&DS,BT,CE,CSE, CSIT,ECE,ECS,EEE, IOT,ME	1	1	1	1	1	1	1	1	1	1
209	22IE4043	Research Internship	PR	0	0	0	4	1	4	Nil	CSE (H)	CSE (H)										
210	22IE4042	Industry Internship	PR	0	0	0	4	1	4	Nil	All	AI&DS,BT,CE, ECE,ECS,EEE,IOT, ME	1	1	1			1	1	1	1	1
211	22IE2046	Project Based Learning -1	PR	0	0	0	6	1.5	6	Nil	AIDS, BT,CE, ECE,EC S,EEE, IOT,ME	AI&DS,BT,CE,ECE, ECS,EEE,IOT,ME	1.5	1.5	1.5			1.5	1.5	1.5	1.5	1.5
212	22IE2047	Project Based Learning -2	PR	0	0	0	6	1.5	6	Nil	AI&DS, BT,CE,E CE,ECS, EEE, IOT,ME	AI&DS,BT,CE,ECE, ECS,EEE,IOT,ME	1.5	1.5	1.5			1.5	1.5	1.5	1.5	1.5
213	22IE3043	Term paper	PR	0	0	0	4	1	4	Nil	All	AI&DS,BT,CE,CSE, CSIT,ECE,ECS,EEE, IOT,ME	1	1	1	1	1	1	1	1	1	1

214	22IE3044	Mid Grad Capstone Project – I	PR	0	0	0	8	2	8	Nil	AI&DS, BT,CE,E CE,ECS, EEE, IOT,ME	AI&DS,BT,CE,ECE, ECS,EEE,IOT,ME	2	2	2			2	2	2	2	2
215	22IE3045	Mid Grad Capstone Project – II	PR	0	0	0	8	2	8	Nil	AI&DS, BT,CE,E CE,ECS, EEE, IOT,ME	AI&DS,BT,CE,ECE, ECS,EEE,IOT,ME	2	2	2			2	2	2	2	2
216	22IE4048/ 22IE4051/ 22IE4050	Project-1 / Internship -1 / Practice School	PR	0	0	0	16	4	16	Nil	All	AI&DS,BT,CE,CSE, CSIT,ECE,ECS,EEE, IOT,ME	4	4	4		4	4	4	4	4	4
217	22IE4049/ 22IE4052/ 22IE4050	Project-2 / Internship -2 /Practice School	PR	0	0	0	16	4	16	Nil	All	AI&DS,BT,CE,CSE, CSIT,ECE,ECS,EEE, IOT,ME	4	4	4		4	4	4	4	4	4
218	22IE4053	Capstone Project -1	PR	0	0	0	24	6	24	Nil	CSE	CSE				6						
219	22IE4054	Capstone Project -2	PR	0	0	0	24	6	24	Nil	CSE	CSE				6						
220	22TS1005	Tool Based Learning-1 (Robotics Process Automation and cloud Foundations)	PR	0	0	0	4	1	4	Nil	CSE, CSIT	CSE, CSIT				1	1					
221	22TS2006	Tool Based Learning-2 (CRM Tools and Mobile App Development)	PR	0	0	0	4	1	4	Nil	CSE, CSIT	CSE, CSIT				1	1					
												Total Credits	**19**	**19**	**19**	**17**	**13**	**19**	**19**	**19**	**19**	**19**
												Grand Total Credits	**161**	**163**	**162**	**163**	**160**	**160**	**161**	**160**	**163**	**161**

List of Flexi Core & Professional Electives

Department of Artificial Intelligence and Data Science

Perception and Language Technologies

S.No	Course Code	Course Title	FC/PE	L	T	P	S	Cr	CH	Pre-requisite
1	22AD3201	Soft Computing	FC/PE1	2	0	2	0	3	4	22AD 2206
2	22AD3107	Signal Processing	FC/PE2	2	0	2	0	3	4	Nil
3	22AD3202	Natural Language Processing	PE3	3	0	0	0	3	3	Nil
4	22AD3203	Computer Vision	PE4	2	0	2	0	3	4	Nil
5	22AD3204	Speech processing	PE5	2	0	2	0	3	4	Nil
6	22AD3210	High Performance Computing	PE6	2	0	2	0	3	4	NIl

Interactive and Embodied Data Analytics

S.No	Course Code	Course Title	FC/PE	L	T	P	S	Cr	CH	Pre-requisite
1	22AD3106	Big Data Engineering	FC/PE1	2	0	2	0	3	4	22AD 2102
2	22AD3205	Analytics for the IoT	PE2	2	0	2	0	3	4	Nil
3	22AD3206	Social Media Analytics	PE3	3	0	0	0	3	3	Nil
4	22AD3207	Graph & Web Analytics	PE4	2	0	2	0	3	4	Nil
5	22AD3211	Cyber Security Analytics	PE5	2	0	2	0	3	4	Nil
6	22AD3208	Recommender Systems	PE6	2	0	2	0	3	4	Nil

Intelligent Autonomous Systems

S.No	Course Code	Course Title	PE	L	T	P	S	Cr	CH	Pre-requisite
1	22AD3201	Introduction to Robotics	PE1	2	0	2	0	3	4	Nil
2	22AD3202	Computer Vision	PE2	2	0	2	0	3	4	Nil
3	22AD3203	Autonomous Vehicles: Self Driving Cars & UAV	PE3	3	0	0	0	3	3	Nil
4	22AD3204	Reinforcement learning	PE4	2	0	2	0	3	4	Nil
5	22AD3205	Autonomous Systems Design	PE5	2	0	2	0	3	4	Nil
6	22AD3206	Quantum computing	PE6	2	0	2	0	3	4	Nil

Department of BioTechnology

Genetic Engineering

S.No	Course Code	Course Title	PE	L	T	P	S	Cr	CH	Pre-requisite
1	22BT3051	Molecular Genetics	PE1	3	0	0	0	3	3	22BT3111
2	22BT3052	Transgenic Technology	PE2	3	0	2	0	4	5	22BT3111
3	22BT3053	Molecular Expression Technology	PE3	3	0	0	0	3	3	22BT3111
4	22BT3054	Genomics and Proteomics	PE4	3	0	0	0	3	3	22BT3111
5	22BT3055	Molecular markers and Diagnostics	PE5	3	0	2	0	4	5	22BT3111
6	22BT3056	Gene and the Environment	PE6	3	0	0	0	3	3	22BT3111
7	22BT3057	Microbial Genetics	PE7	3	0	0	0	3	3	22BT3111
8	22BT3058	DNA Forensics	PE8	3	0	0	0	3	3	22BT3111

Industrial Biotechnology

S.No	Course Code	Course Title	PE	L	T	P	S	Cr	CH	Pre-requisite
1	22BT3061	Microbial Technology	PE1	3	0	0	0	3	3	22BT2106
2	22BT3062	Pharmaceutical Biotechnology	PE2	3	0	0	0	3	3	22BT2106
3	22BT3063	Metabolic Engineering	PE3	3	0	0	0	3	3	22BT2106
4	22BT3064	Bioresource Technology	PE4	3	0	0	0	3	3	22BT2106
5	22BT3065	Bioprocess Economics and Plant Design	PE5	3	0	2	0	4	5	22BT2106
6	22BT3066	Enzyme Engineering	PE6	3	0	2	0	4	5	22BT2106
7	22BT3067	Bioprocess Validation and cGMP	PE7	3	0	0	0	3	3	22BT2106
8	22BT3068	Food Technology	PE8	3	0	0	0	3	3	22BT2106
9	22BT3069	Pharmacovigilance and Safety	PE9	3	0	0	0	3	3	22BT2106

Bioinformatics

S.No	Course Code	Course Title	PE	L	T	P	S	Cr	CH	Pre-requisite
1	22BT3079	NGS sequencing and data analysis	PE1	3	0	0	0	3	3	22BT3110
2	22BT3072	Biomedical Informatics	PE2	3	0	0	0	3	3	22BT3110

3	22BT3073	Molecular Modelling and Drug Design	PE3	3	0	2	0	4	5	22BT3110
4	22BT3074	Structural Biology	PE4	3	0	0	0	3	3	22BT3110
5	22BT3075	Systems Biology	PE5	3	0	0	0	3	3	22BT3110
6	22BT3076	Applied Bioinformatics	PE6	3	0	0	0	3	3	22BT3110
7	22BT3077	Python and R Programming	PE7	3	0	2	0	4	5	22BT3110
8	22BT3078	Data Base Management System	PE8	3	0	0	0	3	3	22BT3110

Medical Biotechnology

S.No	Course Code	Course Title	PE	L	T	P	S	Cr	CH	Pre-requisite
1	22BT3081	Stem cell technology	PE1	3	0	2	0	4	5	22BT1211
2	22BT3082	Healthcare Biotechnology	PE2	3	0	0	0	3	3	22BT1211
3	22BT3083	Cancer Biology	PE3	3	0	0	0	3	3	22BT1211
4	22BT3084	Neurobiology	PE4	3	0	0	0	3	3	22BT1211
5	22BT3085	Bioelectronics & Biosensors	PE5	3	0	0	0	3	3	22BT1211
6	22BT3086	Tissue Engineering	PE6	3	0	2	0	4	5	22BT1211
7	22BT3087	Virology	PE7	3	0	0	0	3	3	22BT1211
8	22BT3088	Nanobiotechnology	PE8	3	0	0	0	3	3	22BT1211

Agri Biotechnology

S.No	Course Code	Course Title	PE	L	T	P	S	Cr	CH	Pre-requisite
1	22BT3089	Molecular Plant Viorology	PE1	3	0	0	0	3	3	22BT2108
2	22BT3090	Crop science and Production	PE2	3	0	0	0	3	3	22BT2108
3	22BT3091	Molecular pathology and pest management	PE3	3	0	0	0	3	3	22BT2108
4	22BT3092	GMOs, Biosafety and Bioethics	PE4	3	0	2	0	4	5	22BT2108
5	22BT3093	Agribusiness and Enterpreunership	PE5	3	0	2	0	4	5	22BT2108
6	22BT3094	Molecular breeding in field crops	PE6	3	0	0	0	3	3	22BT2108
7	22BT3095	Introduction to plant breeding	PE7	3	0	0	0	3	3	22BT2108
8	22BT3096	Agricultural informatics	PE8	3	0	2	0	4	5	22BT2108

Department of Civil Engineering

Structural Engineering

S.No	Course Code	Course Title	PE	L	T	P	S	Cr	CH	Pre-requisite
1	22CE3211	Advanced Structural Analysis	PE1	3	0	0	0	3	3	Nil
2	22CE3221	Advanced Design of Reinforced Concrete Structures	PE2	3	0	0	0	3	3	Nil
3	22CE3231	Prestressed concrete	PE3	3	0	0	0	3	3	Nil
4	22CE4141	Bridge engineering	PE4	3	0	0	0	3	3	Nil
5	22CE4151	Precast and Prefabricated structures	PE5	3	0	0	0	3	3	Nil

Construction Technology and Management

S.No	Course Code	Course Title	PE	L	T	P	S	Cr	CH	Pre-requisite
1	22CE3216	Projects & Contract management	PE1	3	0	0	0	3	3	Nil
2	22CE3226	Quality and Safety Management	PE2	3	0	0	0	3	3	Nil
3	22CE3236	Form Work	PE3	3	0	0	0	3	3	Nil
4	22CE4146	Construction Economics	PE4	3	0	0	0	3	3	Nil
5	22CE4156	Sustainable Construction Technology	PE5	3	0	0	0	3	3	Nil

Geotechnical Engineering

S.No	Course Code	Course Title	PE	L	T	P	S	Cr	CH	Pre-requisite
1	22CE3212	Foundation Engineering	PE1	3	0	0	0	3	3	Nil
2	22CE3222	Ground improvement techniques	PE2	3	0	0	0	3	3	Nil
3	22CE3232	Design of earth retaining structures	PE3	3	0	0	0	3	3	Nil
4	22CE4142	Geotechnical earthquake engineering	PE4	3	0	0	0	3	3	Nil
5	22CE4153	Forensics in Civil Engineering	PE5	3	0	0	0	3	3	Nil

Transportation Engineering

S.No	Course Code	Course Title	PE	L	T	P	S	Cr	CH	Pre-requisite
1	22CE3215	Intelligent transportation systems	PE1	3	0	0	0	3	3	Nil

2	22CE3225	Pavement materials &design	PE2	3	0	0	0	3	3	Nil
3	22CE3235	Traffic engineering and management	PE3	3	0	0	0	3	3	Nil
4	22CE4145	Urban transportation systems planning.	PE4	3	0	0	0	3	3	Nil
5	22CE4155	Railway engineering airport planning and design	PE5	3	0	0	0	3	3	Nil

Environmental Engineering

S.No	Course Code	Course Title	PE	L	T	P	S	Cr	CH	Pre-requisite
1	22CE3213	Sustainable engineering & technology	PE1	3	0	0	0	3	3	Nil
2	22CE3223	Environmental impact assessment and life cycle analyses	PE2	3	0	0	0	3	3	Nil
3	22CE3233	Solid Waste Management and Landfills	PE3	3	0	0	0	3	3	Nil
4	22CE3214	River engineering	PE4	3	0	0	0	3	3	Nil
5	22CE3224	Urban water hydrology and hydraulics	PE5	3	0	0	0	3	3	Nil

Department of Computer Science & Information technology

Knowledge Engineering

S.No	Course Code	Course Title	PE	L	T	P	S	Cr	CH	Pre-requisite
1	22CI3117	Machine Learning	PE1	2	0	2	4	4	8	AI for DS
2	22CI3118	Soft Computing	PE2	2	0	2	0	3	4	MP
3	22CI3119	Artificial Neural Networks	PE2	2	0	2	0	3	4	AI for DS
4	22CI3220	Deep Learning	PE3	2	0	2	4	4	8	NIL
5	22CI3221	Cognitive Computing	PE4	2	0	2	0	3	7	NIL
6	22CI3222	Perception and Computer Vision	PE4	2	0	2	0	3	4	NIL
7	22CI3223	Computational Epidemiology	PE5	2	0	2	0	3	4	NIL
8	22CI3224	Natural Language Processing	PE5	2	0	2	0	3	4	NIL
9	22CI3225	Speech Processing	PE5	2	0	2	0	3	4	NIL

Cyber Security

S.No	Course Code	Course Title	PE	L	T	P	S	Cr	CH	Pre-requisite
1	22CI3126	Crypt Analysis & Cyber Defense	PE-1	2	0	2	4	4	8	CNS

2	22CI3127	Network & Infrastructure Security	PE-2	2	0	2	0	3	4	CNS
3	22CI3128	Introduction to Blockchain & Crypto Currencies	PE-2	2	0	2	0	3	4	CNS
4	22CI3229	Digital Forensics	PE-3	2	0	2	4	4	8	Nil
5	22CI3230	Database & System Security	PE-4	2	0	2	0	3	4	Nil
6	22CI3231	Programming for Smart Contracts	PE-4	2	0	2	0	3	4	Nil
7	22CI3232	Secure Software Engineering	PE-5	2	0	2	0	3	4	Nil
8	22CI3233	Web Security	PE-5	2	0	2	0	3	4	Nil
9	22CI3234	Wireless Sensor Netwroks	PE-5	2	0	2	0	3	4	Nil

Data Science & Analytics

S.No	Course Code	Course Title	PE	L	T	P	S	Cr	CH	Pre-requisite
1	22CI3135	Data Visualization Techniques	PE-1	2	0	2	4	4	8	AI for DS
2	22CI3136	Functional & Concurrent Programming	PE-2	2	0	2	0	3	4	DBMS
3	22CI3137	Data Warehousing & Mining	PE-2	2	0	2	0	3	4	CTOD
4	22CI3238	Big Data Analytics	PE-3	2	0	2	4	4	8	Nil
5	22CI3239	Big Data Optimization	PE-4	2	0	2	0	3	4	Nil
6	22CI3240	Bio Informatics	PE-4	2	0	2	0	3	4	Nil
7	22CI3241	Digital Video Processing	PE-5	2	0	2	0	3	4	Nil
8	22CI3242	Advanced Databases	PE-5	2	0	2	0	3	4	Nil
9	22CI3243	Graph & Web Analytics	PE-5	2	0	2	0	3	4	Nil

Software Modelling & Devops

S.No	Course Code	Course Title	PE	L	T	P	S	Cr	CH	Pre-requisite
1	22CI3144	Software Verification & Validation	PE-1	2	0	2	4	4	8	SE
2	22CI3145	Design Patterns & Clean Coding Techniques	PE-2	2	0	2	0	3	4	CTOD
3	22CI3246	UX Design	PE-2	2	0	2	0	3	4	DTI
4	22CI3247	Continuous Delivery & DevOps	PE-3	2	0	2	4	4	8	Nil
5	22CI3248	Software Project Management	PE-4	2	0	2	0	3	4	Nil
6	22CI3249	Visual Programming	PE-5	2	0	2	0	3	4	Nil
7	22CI3150	Software Reliability	PE-5	3	0	0	0	3	3	Nil

Cross Platform Development Technologies

S.No	Course Code	Course Title	PE	L	T	P	S	Cr	CH	Pre-requisite
1	22CI3151	Fundamentals of Mobile Application Development	PE-1	2	0	2	4	4	8	Nil
2	22CI3252	Advanced Mobile Application Development	PE-2	2	0	2	0	3	4	Nil
3	22CI3253	Framework Based Cross Platform App Development	PE-3	2	0	2	4	4	8	Nil
4	22CI3254	Secure Mobile Application Development	PE-4	2	0	2	0	3	4	Nil
5	22CI3255	3D Application & Game Development for Mobiles	PE-5	2	0	2	0	3	4	Nil
6	22CI3156	Cross Platform User Experience Design	PE-5	2	0	2	0	3	4	Nil

Management Information Systems

S. No	Course Code	Course Title	PE	L	T	P	S	Cr	CH	Pre-requisite
1	22CI3157	Enterprise Programming Planning	PE-1	2	0	2	4	4	8	Nil
2	22CI3258	Information System Analysis & Design	PE-2	2	0	2	0	3	4	Nil
3	22CI3259	E-Commerce Design & Development	PE-3	2	0	2	4	4	8	Nil
4	22CI3260	Data Analytics & Visualization	PE-4	2	0	2	0	3	4	Nil
5	22CI3261	Data Warehousing & Mining	PE-5	2	0	2	0	3	4	Nil
6	22CI3262	Information Security Governance & Risk Management	PE-5	2	0	2	0	3	4	Nil

Department of Computer Science and Engineering

Artificial Intelligence & Intelligent Process Automation (AI & IPA)

S.No	Course Code	Course Title	PE	L	T	P	S	Cr	CH	Pre-requisite
1	22CS3020	Machine Learning	PE-1	2	0	2	4	4	8	Nil
2	22CS3022	Soft Computing	PE-2	2	0	2	0	3	4	Nil
3	22CS3026	Artificial Neural Networks	PE-2	2	0	2	0	3	4	Nil
4	22CS3269	Deep Learning	PE-3	2	0	2	4	4	8	Nil
5	22CS3270	Cognitive Computing	PE-4	2	0	2	0	3	4	Nil
6	22CS3271	Perception And Computer Vision	PE-4	2	0	2	0	3	4	Nil

7	22CS3278	Digital Video Processing	PE-4	2	0	2	0	3	4	Nil
8	22CS3282	Machine Learning On Cloud	PE-4	2	0	2	0	3	4	Nil
9	22CS3272	Computational Epidemiology	PE-5	2	0	2	0	3	4	Nil
10	22CS3273	Natural Language Processing	PE-5	2	0	2	0	3	4	Nil
11	22CS3274	Speech Processing	PE-5	2	0	2	0	3	4	Nil
12	22CS3292	Design & Management of Distributed Applications for AI on Cloud	PE-5	2	0	2	0	3	4	Nil
13	22CS3293	Architecting Deep Learning Workloads on Cloud	PE-5	2	0	2	0	3	4	Nil

Data Science & Big Data Analytics (DS&BDA)

S.No	Course Code	Course Title	PE	L	T	P	S	Cr	CH	Pre-requisite
1	22CS3051	Data Visualisation Techniques	PE-1	2	0	2	4	4	8	Nil
2	22CS3052	Data Warehousing & Mining	PE-2	2	0	2	0	3	4	Nil
3	22CS3275	Big Data Analytics	PE-3	2	0	2	4	4	8	Nil
4	22CS3276	Big Data Optimization	PE-4	2	0	2	0	3	4	Nil
5	22CS3277	Bioinformatics	PE-4	2	0	2	0	3	4	Nil
6	22CS3278	Digital Video Processing	PE-4	2	0	2	0	3	4	Nil
7	22CS3283	Data Analytics On Cloud	PE-4	2	0	2	0	3	4	Nil
8	22CS3284	Digital Media Analytics	PE-4	2	0	2	0	3	4	Nil
9	22CS3272	Computational Epidemiology	PE-5	2	0	2	0	3	4	Nil
10	22CS3279	Advanced Databases	PE-5	2	0	2	0	3	4	Nil
11	22CS3289	Business Analytics	PE-5	2	0	2	0	3	4	Nil
12	22CS3280	Graph & Web Analytics	PE-5	2	0	2	0	3	4	Nil
13	22CS3294	Data Governance on Cloud	PE-5	2	0	2	0	3	4	Nil

Cloud & Edge Computing (CEC)

S.No	Course Code	Course Title	PE	L	T	P	S	Cr	CH	Pre-requisite
1	22CS3037	Cloud Infrastructure & Services	PE-1	2	0	2	4	4	8	Nil
2	22CS3032	Advanced Operating Systems	PE-2	2	0	2	0	3	4	Nil
3	22CS3036	Functional & Concurrent Programming	PE-2	2	0	2	0	3	4	Nil

4	22CS3086	Cloud Devops	PE-2	2	0	2	0	3	4	Nil
5	22CS3281	Cloud & Serverless Computing	PE-3	2	0	2	4	4	8	Nil
6	22CS3251	Advanced Computer Architecture	PE-4	2	0	2	0	3	4	Nil
7	22CS3252	Parallel Algorithms	PE-4	2	0	2	0	3	4	Nil
8	22CS3287	Cloud Security	PE-4	2	0	2	0	3	4	Nil
9	22CS3285	Architecting Cloud Solutions	PE-4	2	0	2	0	3	4	Nil
10	22CS3253	Edge Computing	PE-5	2	0	2	0	3	4	Nil
11	22CS3038	High Performance Computing	PE-5	2	0	2	0	3	4	Nil
12	22CS3290	Design of Distributed Applications on Cloud	PE-5	2	0	2	0	3	4	Nil
13	22CS3288	Cloud Networking	PE-5	2	0	2	0	3	4	Nil

Cybersecurity & Blockchain Technology (Cys&BCT)

S.No	Course Code	Course Title	PE	L	T	P	S	Cr	CH	Pre-requisite
1	22CS3041	Crypt Analysis & Cyber Defense	PE-1	2	0	2	4	4	8	Nil
2	22CS3042	Network & Infrastructure Security	PE-2	2	0	2	0	3	4	Nil
3	22CS3045	Introduction to Blockchain & Crypto Currencies	PE-2	2	0	2	0	3	4	Nil
4	22CS3259	Digital Forensics	PE-3	2	0	2	4	4	8	Nil
5	22CS3260	Database & System Security	PE-4	2	0	2	0	3	4	Nil
6	22CS3261	Programming for Smart Contracts	PE-4	2	0	2	0	3	4	Nil
7	22CS3287	Cloud Security	PE-4	2	0	2	0	3	4	Nil
8	22CS3262	Secure Software Engineering	PE-5	2	0	2	0	3	4	Nil
9	22CS3264	Web Security	PE-5	2	0	2	0	3	4	Nil
10	22CS3291	Security Governance & Management	PE-5	2	0	2	0	3	4	Nil

Software Modelling & DevOps (SM&DPS)

S.No	Course Code	Course Title	PE	L	T	P	S	Cr	CH	Pre-requisite
1	22CS3062	Software Verification & Validation	PE-1	2	0	2	4	4	8	Nil
2	22CS3064	Ux Design	PE-2	2	0	2	0	3	4	Nil
3	22CS3065	Design Patterns & Clean Coding Techniques	PE-2	2	0	2	0	3	4	Nil
4	22CS3256	Continuous Delivery & Devops	PE-3	2	0	2	4	4	8	Nil

5	22CS3257	Visual Programing	PE-4	2	0	2	0	3	4	Nil
6	22CS3231	Software Project Management	PE-4	2	0	2	0	3	4	Nil
7	22CS3295	Software Architecture & Design	PE-4	2	0	2	0	3	4	Nil
8	22CS3258	Software Reliability	PE-5	2	0	2	0	3	4	Nil
9	22CS3255	Cross-Platform Development Frameworks	PE-5	2	0	2	0	3	4	Nil

Game Development & UX Design (GUX)

S.No	Course Code	Course Title	PE	L	T	P	S	Cr	CH	Pre-requisite
1	22CS3071	Programming For Game Development	PE-1	2	0	2	4	4	8	Nil
2	22CS3064	Ux Design	PE-2	2	0	2	0	3	4	Nil
3	22CS3266	Ar & Vr Application Development	PE-3	2	0	2	4	4	8	Nil
4	22CS3296	Computer Graphics	PE-4	2	0	2	0	3	4	Nil
5	22CS3297	3d Modelling & Animation	PE-4	2	0	2	0	3	4	Nil
6	22CS3278	Digital Video Processing	PE-4	2	0	2	0	3	4	Nil
7	22CS3268	Principles Of Game Design	PE-5	2	0	2	0	3	4	Nil
8	22CS3267	Business Of Games & Entrepreneurship	PE-5	2	0	2	0	3	4	Nil

CPS&IOT

S.No	Course Code	Course Title	PE	L	T	P	S	Cr	CH	Pre-requisite
1	22CS3117	Iot Sensing And Actuating Devices	PE-1	2	0	2	4	4	8	Nil
2	22CS3118	Internet Of Things: Architectures And Protocols	PE-2	2	0	2	0	3	4	Nil
3	22CS3298	Cyber Physical Systems	PE-3	2	0	2	4	4	8	Nil
4	22CS3278	Digital Video Processing	PE-4	2	0	2	0	3	4	Nil
5	22CS3299	Foundations Of Hybrid And Embedded Systems	PE-4	2	0	2	0	3	4	Nil
6	22CS3250	Cloud Computing For Iot Engineers	PE-5	2	0	2	0	3	4	Nil
7	22CS3265	Wireless Sensor Networks	PE-5	2	0	2	0	3	4	Nil
8	22CS3253	Edge Computing	PE-5	2	0	2	0	3	4	Nil

Department of Electronics and Communication Engineering

Internet of Things (IoT)

S.No	Course Code	Course Title	FC/PE	L	T	P	S	Cr	CH	Pre-requisite
1	22EC3020	Electrical Technologies & Solar Power Systems	FC	3	0	2	0	4	5	Nil
2	22EC3051	Advanced Embedded Systems	PE-1	3	0	0	0	3	3	Nil
3	22EC3052	Embedded Systems for IoT	PE-2	2	0	0	4	3	6	Nil
4	22EC3053	Embedded and Real-time systems	PE-3	2	0	2	0	3	4	Nil
5	22EC3054	Embedded Linux	PE-4	2	0	2	0	3	4	Nil
6	22EC3055	Cloud Architecture in IoT	PE-5	2	0	2	0	3	4	Nil
7	22EC3056	Edge Computing & Data Analytics in IoT	PE-6	2	0	2	0	3	4	Nil

Very large Scale Intergrated Circuits (VLSI)

S.No	Course Code	Course Title	PE	L	T	P	S	Cr	CH	Pre-requisite
1	22EC3061	Low Power VLSI Design	FC	3	0	2	0	4	5	Nil
2	22EC3062	Analog VLSI Design	PE-1	2	0	0	4	3	6	Nil
3	22EC3063	VLSI Sub system Design and Design for Testability	PE-2	2	0	2	0	3	4	Nil
4	22EC3064	ASIC & FPGA Chip Design	PE-3	2	0	2	0	3	4	Nil
5	22EC3066	System on Chip Design	PE-4	2	0	2	0	3	4	Nil
6	22EC3065	Alogrthims for VLSI Design Automation	PE-5	2	0	2	0	3	4	Nil
7	22EC3067	Mixed Signal IC design	PE-6	2	0	2	0	3	4	Nil

Robotics and Automation

S.No	Course Code	Course Title	FC/PE	L	T	P	S	Cr	CH	Pre-requisite
1	22EC3018	Electronics Instruments & Automation	FC	3	0	2	0	4	5	Nil
2	22EC3071	Introduction to Robotics	PE-1	3	0	0	0	3	3	Nil
3	22EC3072	Autonomous Vehicles & Automotive Electronics	PE-2	2	0	0	4	3	6	Nil

4	22EC3073	Advanced Robotics	PE-3	2	0	2	0	3	4	Nil
5	22EC3074	Computer Vision & Applications	PE-4	2	0	2	0	3	4	Nil
6	22EC3075	Human Machine Interface & Brain Machine Interface	PE-5	2	0	2	0	3	4	Nil
7	22EC3076	Designing Automation Systems & Assistive Robotic Systems	PE-6	2	0	2	0	3	4	Nil

MLDMP

S.No	Course Code	Course Title	FC/PE	L	T	P	S	Cr	CH	Pre-requisite
1	22EC3019	High Performance Computing	FC2	3	0	2	0	4	5	Nil
2	22EC3021	Machine Learning with Python	FC1	3	0	2	0	4	5	Nil
3	22EC3081	Speech Signal Processing	PE-1	3	0	0	0	3	3	Nil
4	22EC3082	Natural Language Processing & Applications	PE-2	2	0	0	4	3	6	Nil
5	22EC3083	Computer Vision & Applications	PE-3	2	0	2	0	3	4	Nil
6	22EC3084	Big Data Analytics	PE-4	2	0	2	0	3	4	Nil
7	22EC3085	Data Visualization	PE-5	2	0	2	0	3	4	Nil

RF and Microwave

S.No	Course Code	Course Title	FC/PE	L	T	P	S	Cr	CH	Pre-requisite
1	22EC3016	RF System Design	FC	3	0	2	0	4	5	Nil
2	22EC3091	Microwave Engineering	PE-1	3	0	0	0	3	3	Nil
3	22EC3092	Antenna Design & Wave Propagation	PE-2	2	0	0	4	3	6	Nil
4	22EC3093	Radar Engineering & Navigational Aids	PE-3	2	0	2	0	3	4	Nil
5	22EC3094	Modern Antennas, Millimeter Waves & Applications	PE-4	2	0	2	0	3	4	Nil
6	22EC3095	Electronic Warfare, EMI & EMC	PE-5	2	0	2	0	3	4	Nil

Data Communication

S.No	Course Code	Course Title	FC/PE	L	T	P	S	Cr	CH	Pre-requisite
1	22EC3015	Wireless Communications	FC	3	0	2	0	4	5	Nil
2	22EC4051	4G Wireless Technologies and Cellular Communication	PE-1	3	0	0	0	3	3	Nil

3	22EC4052	5G Wireless Technologies	PE-2	2	0	0	4	3	6	Nil
4	22EC4053	Machine Learning for Wireless Communications	PE-3	2	0	2	0	3	4	Nil
5	22EC4054	Optical Wireless Communications	PE-4	2	0	2	0	3	4	Nil
6	22EC4055	Modern Satellite Communication Systems	PE-5	2	0	2	0	3	4	Nil

Computer Communication & 5G Technologies

S.No	Course Code	Course Title	FC/PE	L	T	P	S	Cr	CH	Pre-requisite
1	22EC3015	Wireless Communications	FC	3	0	2	0	4	5	Nil
2	22EC4061	TCP/IP & Other Protocol Suite	PE-1	3	0	0	0	3	3	Nil
3	22EC4062	VoIP Systems & Broad Band Networks	PE-2	2	0	0	4	3	6	Nil
4	22EC4063	5G Mobile, Wireless Technologies & IEEE 802 Standards	PE-3	2	0	2	0	3	4	Nil
5	22EC4064	Cloud-Computing & Network Security	PE-4	2	0	2	0	3	4	Nil
6	22EC4065	IP Multimedia Sub-System & Emerging Technologies	PE-5	2	0	2	0	3	4	Nil

Bio-Medical Instrumentation

S.No	Course Code	Course Title	FC/PE	L	T	P	S	Cr	CH	Pre-requisite
1	22EC3017	Biomedical Electronics & IOT for Healthcare	FC	3	0	2	0	4	5	Nil
2	22EC4071	Electronic Circuits for Medical Instrumentation	PE-1	3	0	0	0	3	3	Nil
3	22EC4072	Biomedical Signal and Image Processing	PE-2	2	0	0	4	3	6	Nil
4	22EC4073	Advanced Biomedical signal processing	PE-3	2	0	2	0	3	4	Nil
5	22EC4074	Biomedical device design Fundamentals	PE-4	2	0	2	0	3	4	Nil
6	22EC4075	Bio Inspired Robotics	PE-5	2	0	2	0	3	4	Nil
7	22EC4076	Biological & Cyber-Physical Systems	PE-6	2	0	2	0	3	4	Nil

Department of Electronics and Computer Science

Web Technology

S.No	Course Code	Course Title	PE	L	T	P	S	Cr	CH	Pre-requisite
1	22EL3104	Web Programming using Python and Django	PE1	2	0	2	0	3	4	Nil
2	22EL3205	Cloud Computing for web Engineer	PE2	2	0	2	0	3	4	Nil
3	22EL3206	Big data Analytics for Web Engineer	PE3	2	0	2	0	3	4	Nil
4	22EL3207	Essentials of Block Chain Technology	PE4	2	0	2	0	3	4	Nil
5	22EL3208	Robotic Process Automation	PE5	2	0	2	0	3	4	Nil
6	22EL3214	Ethical hacking for web engineers	PE6	2	0	2	0	3	4	Nil

Embedded Systems

S.No	Course Code	Course Title	PE	L	T	P	S	Cr	CH	Pre-requisite
1	22EL3211	Hardware software co-design	PE1	2	0	2	0	3	4	Nil
2	22EL3203	Embedded Real Time Operating System	PE2	2	0	2	0	3	4	Nil
3	22EL3204	Networking of Embedded Systems	PE3	2	0	2	0	3	4	Nil
4	22EL4103	Sensors and Actuators in embedded systems	PE4	2	0	2	0	3	4	Nil
5	22EL4104	System on Chip	PE5	2	0	2	0	3	4	Nil
6	22EL3213	Embedded Security	PE6	2	0	2	0	3	4	Nil

Internet of Things

S.No	Course Code	Course Title	PE	L	T	P	S	Cr	CH	Pre-requisite
1	22EL3106	Fundamentals of IoT	PE1	2	0	2	0	3	4	Nil
2	22EL3107	Internet of Things: Architectures and Prorocols	PE2	2	0	2	0	3	4	Nil
3	22EL3108	IoT Sensing and Actuating Devices	PE3	2	0	2	0	3	4	Nil
4	22EL3209	wireless sensor networks	PE4	2	0	2	0	3	4	Nil

5	22EL3210	Cloud computing for IoT	PE5	2	0	2	0	3	4	Nil
6	22EL3212	IoT Application Development	PE6	2	0	2	0	3	4	Nil

Department of Electrical and Electronics Engineering

Smart Grid Technologies

S.No	Course Code	Course Title	PE	L	T	P	S	Cr	CH	Pre-requisite
1	22EE3231	Distribution System Practices	PE1	3	0	0	0	3	3	21EE2203
2	22EE3232	Distributed Energy Resources and Smart Grids	PE2	2	0	2	0	3	4	Nil
3	22EE3233	Energy Management Systems and Scada	PE3	3	0	0	0	3	3	Nil
4	22EE4131	Smart Grid Communication and Cybersecurity	PE4	3	0	0	0	3	3	Nil
5	22EE4132	Internet Of Things and Smart Grid Analytics	PE5	2	0	2	0	3	4	Nil

Green Energy Technologies

S.No	Course Code	Course Title	PE	L	T	P	S	Cr	CH	Pre-requisite
1	22EE3221	Solar PV and Micro Energy Technologies	PE1	3	0	0	0	3	3	Nil
2	22EE3222	Wind and Energy Storage Technologies	PE2	3	0	0	0	3	3	Nil
3	22EE3223	Energy Management and Green Buildings	PE3	2	1	0	0	3	3	Nil
4	22EE4121	AI and IoT for Green Energy Integration	PE4	2	0	2	0	3	4	Nil
5	22EE4122	Grid Integration of Renewable Energy Sources	PE5	2	0	2	0	3	4	Nil

Electric Vehicle Technology

S.No	Course Code	Course Title	PE	L	T	P	S	Cr	CH	Pre-requisite
1	22EE3241	Power Train Design for Electric Vehicle	PE1	2	1	0	0	3	3	Nil
2	22EE3242	Battery State Estimation Algorithms for Electric Vehicle	PE2	3	0	0	0	3	3	Nil
3	22EE3243	Charging Stations for Electric Vehicles	PE3	2	0	2	0	3	4	21EE2204
4	22EE4141	AI and IoT for Electric Vehicle	PE4	2	0	2	0	3	4	Nil

5	22EE4142	Communication Protocols & Testing of Electric Vehicle	PE5	2	0	2	0	3	4	Nil

Industrial Automation

S.No	Course Code	Course Title	PE	L	T	P	S	Cr	CH	Pre-requisite
1	22EE3211	Industrial Automation and Robotics	PE1	3	0	0	0	3	3	Nil
2	22EE3212	Introduction To Industrial Internet of Things	PE2	2	0	2	0	3	4	Nil
3	22EE3213	Industrial Drives and Control	PE3	3	0	0	0	3	3	Nil
4	22EE4111	Industrial Communication Protocols and Cyber Security	PE4	2	1	0	0	3	3	Nil
5	22EE4112	Smart Sensors and Sensor Networking	PE5	2	0	2	0	3	4	Nil

Department of Mechanical Engineering

Engineering Design

S.No	Course Code	Course Title	PE	L	T	P	S	Cr	CH	Pre-requisite
1	22ME4051	Theory Of Elasticity And Plasticity	PE-1	3	0	0	0	3	3	22ME2208
2	22ME4052	Finite Element Method	PE-2	2	0	2	0	3	4	22PH1010
3	22ME4053	Modeling, Analysis & Design of Robotic Systems	PE-3	2	0	2	0	3	4	NIL
4	22ME4054	Creep, Fatigue And Fracture Mechanics	PE-4	3	0	0	0	3	3	22ME2208
5	22ME4055	Advanced Strength of Materials	PE-5	2	0	2	0	3	4	22ME2101
6	22ME4056	Mechanics Of Composite Materials	PE-6	3	0	0	0	3	3	22ME2208
7	22ME4057	Sustainable Design & Social Innovation In Engineering Design	PE-7	1	0	4	0	3	5	22ME2208

Smart Manufacturing

S.No	Course Code	Course Title	PE	L	T	P	S	Cr	CH	Pre-requisite
1	22ME4061	Modern Manufacturing Processes	PE-1	2	0	2	0	3	4	22ME2107
2	22ME4062	Machine To Machine Communication	PE-2	2	0	2	0	3	4	NIL

3	22ME4063	Advanced Materials	PE-3	3	0	0	0	3	3	NIL
4	22ME4064	Flexible Manufacturing Systems	PE-4	2	0	2	0	3	4	NIL
5	22ME4065	Robotics & Industrial Automation	PE-5	2	0	2	0	3	4	NIL
6	22ME4066	Reverse Engineering & Rapid Prototyping	PE-6	3	0	0	0	3	3	NIL
7	22ME4067	Sustainable Design & Social Innovation In Smart Manufacturing	PE-7	1	0	4	0	3	5	NIL

Energy & CFD

S.No	Course Code	Course Title	PE	L	T	P	S	Cr	CH	Pre-requisite
1	22ME4071	Hydrogen and Fuel Cell Technologies	PE-1	2	0	2	0	3	4	NIL
2	22ME4072	Solar Energy Technologies	PE-2	2	0	2	0	3	4	NIL
3	22ME4073	Advanced Energy Storage Systems	PE-3	2	0	2	0	3	4	NIL
4	22ME4074	Energy Audit and Management	PE-4	3	0	0	0	3	3	NIL
5	22ME4075	Computational Fluid Flow and Heat Transfer-FDM Approach	PE-5	2	0	2	0	3	4	NIL
6	22ME4076	CFD For Compressible and Incompressible Flows	PE-6	2	0	2	0	3	4	NIL
7	22ME4077	Thermal Management of Electric and Electronic Systems	PE-7	3	0	0	0	3	3	NIL

Robotics & Mechatronics

S.No	Course Code	Course Title	PE	L	T	P	S	Cr	CH	Pre-requisite
1	22ME4081	Robot Motion Planning, dynamics and Control	PE-1	2	0	2	0	3	4	NIL
2	22ME4082	Robot Manipulation and Wheeled Mobile Robots	PE-2	2	0	2	0	3	4	NIL
3	22ME4083	Mechatronics: Fundamentals and Core Concepts	PE-3	2	0	2	0	3	4	NIL
4	22ME4084	Artificial Intelligence for Robotics	PE-4	2	0	2	0	3	4	NIL
5	22EC3075	Human Machine Interface & Brain Machine Interface	PE-5	2	0	2	0	3	4	NIL
6	22EC3074	Computer Vision & Applications	PE-6	2	0	2	0	3	4	NIL
7	22EC3072	Autonomous Vehicles & Automotive Electronics	PE-7	2	0	2	0	3	4	NIL

Modern Vehicle Technology

S.No	Course Code	Course Title	PE	L	T	P	S	Cr	CH	Pre-requisite
1	22EE3241	Power Train Design for Electric Vehicle	PE-1	2	0	2	0	3	4	NIL
2	22ME4091	Solar Energy Technologies	PE-2	2	0	2	0	3	4	NIL
3	22ME4092	Vehicle dynamics	PE-3	2	0	2	0	3	4	NIL
4	22ME4077	Thermal Management of Electric and Electronic Systems	PE-4	2	0	2	0	3	4	NIL
5	22EE4141	AI and IOT for Electric Vehicle	PE-5	2	0	2	0	3	4	NIL
6	22EE4142	Communication Protocols & Testing of Electric Vehicle	PE-6	2	0	2	0	3	4	NIL
7	22ME4094	Autonomous Vehicles & Automotive Electronics	PE-7	2	0	2	0	3	4	NIL

Department of Internet of Things

Renewable Energy and Smart Cities

S.No	Course Code	Course Title	FC/PE	L	T	P	S	Cr	CH	Pre-requisite
1	22IN3020	Electrical Technologies & Solar Power Systems	FC-1, FC-2	3	0	2	0	4	5	Nil
2	22IN3021	Advanced Flexible Hybrid Electronics for IoT	FC-1, FC-2	3	0	2	0	4	5	Nil
3	22IN3051	Flexible Hybrid Electronics for IoT Systems	PE-1	3	0	0	0	3	3	Nil
4	22IN3052	Energy Harvesting Technologies for IoT	PE-2	2	0	0	4	3	6	Nil
5	22IN3053	Systems for Renewable Energy & Smart Grid	PE-3	2	0	2	0	3	4	Nil
6	22IN3054	Industrial IoT	PE-4	2	0	2	0	3	4	Nil
7	22IN3055	Systems for Smart Cities & Smart Villages	PE-5	2	0	2	0	3	4	Nil

Embedded System

S.No	Course Code	Course Title	FC/PE	L	T	P	S	Cr	CH	Pre-requisite
1	22IN3022	Advanced Microcontrollers	FC-1, FC-2	3	0	2	0	4	5	Nil
2	22IN3023	Digital System Design	FC-1, FC-2	3	0	2	0	4	5	Nil
3	22IN3061	Advanced Embedded Systems Design	PE-1	3	0	0	0	3	3	Nil

4	22IN3062	Embedded Systems for IoT	PE-2	2	0	0	4	3	6	Nil
5	22IN3063	Embedded Linux	PE-3	2	0	2	0	3	4	Nil
6	22IN3064	Embedded and Real-time systems	PE-4	2	0	2	0	3	4	Nil
7	22IN3065	Edge Computing & Big Data Analytics in IoT	PE-5	2	0	2	0	3	4	Nil

Bio-Medical Instrumentation

S.No	Course Code	Course Title	FC/PE	L	T	P	S	Cr	CH	Pre-requisite
1	22IN3024	Biomedical Electronics & IOT for Healthcare	FC	3	0	2	0	4	5	Nil
2	22IN3025	Electronics Instruments & Automation	FC-1, FC-2	3	0	2	0	4	5	Nil
3	22IN3071	Electronic Circuits for Medical Instrumentation	PE-1	3	0	0	0	3	3	Nil
4	22IN3072	Biomedical Signal and Image Processing	PE-2	2	0	0	4	3	6	Nil
5	22IN3073	Advanced Biomedical signal processing	PE-3	2	0	2	0	3	4	Nil
6	22IN3074	Biomedical device design Fundamentals	PE-4	2	0	2	0	3	4	Nil
7	22IN3075	Bio Inspired Robotics	PE-5	2	0	2	0	3	4	Nil

Robotics and Automation

S.No	Course Code	Course Title	FC/PE	L	T	P	S	Cr	CH	Pre-requisite
1	22IN3025	Electronics Instruments & Automation	FC-1, FC-2	3	0	2	0	4	5	Nil
2	22IN3026	Automotive Electronics & Avionics	FC-1, FC-2	3	0	2	0	4	5	Nil
3	22IN3081	Control Systems & Introduction to Robotics	PE-1	3	0	0	0	3	3	Nil
4	22IN3082	Autonomous Vehicles & Automotive Electronics	PE-2	2	0	0	4	3	6	Nil
5	22IN3083	Advanced Robotics	PE-3	2	0	2	0	3	4	Nil
6	22IN3084	Computer Vision & Applications	PE-4	2	0	2	0	3	4	Nil
7	22IN3085	Human Machine Interface & Brain Machine Interface	PE-5	2	0	2	0	3	4	Nil

MLDMP

S.No	Course Code	Course Title	FC/PE	L	T	P	S	Cr	CH	Pre-requisite
1	22IN3027	High Performance Computing	FC-1, FC-2	3	0	2	0	4	5	Nil

2	22IN3028	Machine Learning with Python	FC-1, FC-2	3	0	2	0	4	5	Nil
3	22IN3091	Speech Signal Processing	PE-1	3	0	0	0	3	3	Nil
4	22IN3084	Computer Vision & Applications	PE-2	2	0	0	4	3	6	Nil
5	22IN3093	Natural Language Processing & Applications	PE-3	2	0	2	0	3	4	Nil
6	22IN3094	Big Data Analytics	PE-4	2	0	2	0	3	4	Nil
7	22IN3095	Digital Twin Technologies	PE-5	2	0	2	0	3	4	Nil

Cyber Security & Block Chain Technology

S.No	Course Code	Course Title	FC/PE	L	T	P	S	Cr	CH	Pre-requisite
1	22IN3029	Database Management System and Security	FC-1, FC-2	3	0	2	0	4	5	Nil
2	22IN3030	Operating Systems	FC-1, FC-2	3	0	2	0	4	5	Nil
3	22IN3111	Big Data Analysis & Decision Making	PE-1	3	0	0	0	3	3	Nil
4	22IN3112	Block Chain & Cyber Security	PE-2	2	0	0	4	3	6	Nil
5	22IN3113	Cloud Computing Network Security	PE-3	2	0	2	0	3	4	Nil
6	22IN3114	NLP & Sentiment Analysis	PE-4	2	0	2	0	3	4	Nil
7	22IN3115	Advanced Machine Learning, DNN & CNN	PE-5	2	0	2	0	3	4	Nil

Computer Communication & 5G technologies

S.No	Course Code	Course Title	FC/PE	L	T	P	S	Cr	CH	Pre-requisite
1	22IN3031	Wireless Communications	FC-1, FC-2	3	0	2	0	4	5	Nil
2	22IN3032	Wireless Sensor Network and Security	FC-1, FC-2	3	0	2	0	4	5	Nil
3	22IN3121	TCP/IP & Other Protocol Suite	PE-1	3	0	0	0	3	3	Nil
4	22IN3122	VoIP Systems & Broad Band Networks	PE-2	2	0	0	4	3	6	Nil
5	22IN3123	5G Mobile, Wireless Technologies & IEEE 802 Standards	PE-3	2	0	2	0	3	4	Nil
6	22IN3124	Cloud-Computing & Network Security / (Hardware Security)	PE-4	2	0	2	0	3	4	Nil
7	22IN3125	IP Multimedia Sub-System & Emerging Technologies	PE-5	2	0	2	0	3	4	Nil

List of Open Electives

S.No	Course Code	Course Title	L	T	P	S	Cr	CH	Offered by
1	22AD3107	Introduction to Artificial Intelligence	3	0	0	0	3	3	AI&DS
2	22AD3108	Data Science & Visualization	3	0	0	0	3	3	AI&DS
3	22BT40A1	IPR & Patent Laws	3	0	0	0	3	3	BT
4	22BT40A9	Biomaterials	3	0	0	0	3	3	BT
5	22BT40C5	Computer Aided Drug Design	3	0	0	0	3	3	BT
6	22CE40A2	Environmental Pollution Control Methods	3	0	0	0	3	3	CE
7	22CE40A3	Solid and Hazardous waste management	3	0	0	0	3	3	CE
8	22CE40A4	Remote Sensing & GIS	3	0	0	0	3	3	CE
9	22CE40A5	Disaster Management	3	0	0	0	3	3	CE
10	22CS40A6	Fundamentals of DBMS	3	0	0	0	3	3	CSE
11	22CS40A7	Fundamentals of Software Engineering	3	0	0	0	3	3	CSE
12	22CS40A8	Fundamentals of Information Technology	3	0	0	0	3	3	CSE
13	22EL40B1	Fundamentals of Embedded System	3	0	0	0	3	3	ECS
14	22EL40B2	E-Commerce	3	0	0	0	3	3	ECS
15	22EL40B3	Introduction to Internet of Things	3	0	0	0	3	3	ECS
16	22EC40A9	Image Processing	3	0	0	0	3	3	ECE
17	22EC40C9	Nanoelectronics	3	0	0	0	3	3	ECE
18	22EE41A1	Renewable Energy Sources	3	0	0	0	3	3	EEE
19	22EE41B1	Energy Estimation and Audit	3	0	0	0	3	3	EEE
20	22ME40B4	Robotics	3	0	0	0	3	3	ME
21	22ME40B5	Mechatronics	3	0	0	0	3	3	ME
22	22ME40B6	Operations Research	3	0	0	0	3	3	ME
23	22ME40B7	Hybrid Electric vehicles	3	0	0	0	3	3	ME
24	22ME40B8	Industry 4.0	3	0	0	0	3	3	ME
25	22ME40B9	Industrial Automation	3	0	0	0	3	3	ME
26	22ME40C1	Logistics & Supply chain management	3	0	0	0	3	3	ME
27	22ME40C2	Total Quality Management	3	0	0	0	3	3	ME
28	22ME40C3	Smart Mobility	3	0	0	0	3	3	ME
29	22ME40C4	Managerial Economics for Engineers	3	0	0	0	3	3	ME
30	22GN40C1	Self Development	3	0	0	0	3	3	NSS
31	22GN40C3	Emotional Intelligence	3	0	0	0	3	3	NSS
32	22GN40C5	Behavioural Sciences	3	0	0	0	3	3	NSS
33	22GN40D1	National Caded Cops-1	2	0	2	0	3	4	NSS
34	22GN40D2	National Caded Cops-2	2	0	2	0	3	4	NSS
35	22GN40D3	National Caded Cops-3	2	0	2	0	3	4	NSS
36	22GN40D4	National Service Scheme-1	2	0	2	0	3	4	NSS
37	22GN40D5	National Service Scheme-2	2	0	2	0	3	4	NSS
38	22GN40D6	National Service Scheme-3	2	0	2	0	3	4	NSS

List of Management Electives

S.No	Course Code	Course Title	L	T	P	S	Cr	CH	Offered by
1	22MB4056	Resources Safety and Quality Management	3	0	0	0	3	3	MBA
2	22MB4058	Construction project Management	3	0	0	0	3	3	MBA
3	22MB4051	Paradigms in Management Thought	3	0	0	0	3	3	MBA
4	22MB4052	Indian Economy	3	0	0	0	3	3	MBA
5	22MB4053	Managing Personal Finances	3	0	0	0	3	3	MBA
6	22MB4054	Basics of Marketing for Engineers	3	0	0	0	3	3	MBA
7	22MB4055	Organization Management	3	0	0	0	3	3	MBA
8	22MB4057	Economics for Engineers	3	0	0	0	3	3	MBA

List of Foreign Language Electives

S.No	Course Code	Course Title	L	T	P	S	Cr	CH	Offered by
1	22FL3051	Arabic Language	2	0	0	0	2	2	DFL
2	22FL3052	Bengali Language	2	0	0	0	2	2	DFL
3	22FL3053	Chinese Language	2	0	0	0	2	2	DFL
4	22FL3054	French Language	2	0	0	0	2	2	DFL
5	22FL3055	German Language	2	0	0	0	2	2	DFL
6	22FL3056	Hindi Language	2	0	0	0	2	2	DFL
7	22FL3057	Italian Language	2	0	0	0	2	2	DFL
8	22FL3059	Kannada Language	2	0	0	0	2	2	DFL
9	22FL3060	Russian Language	2	0	0	0	2	2	DFL
10	22FL3061	Simhali Language	2	0	0	0	2	2	DFL
11	22FL3062	Spanish Language	2	0	0	0	2	2	DFL
12	22FL3058	Japanese Language-1	2	0	0	0	2	2	DFL

List of Additional Open Electives to complete three levels of Japaneese Language and 24 Credits of NCC

S.No	Course Code	Course Title	L	T	P	S	Cr	CH	Offered by
1	22FL3063	Japanese Language-2	2	0	0	0	2	2	DFL
2	22FL3064	Japanese Language-3	2	0	0	0	2	2	DFL
3	22GN40D7	National Caded Cops-4	2	0	0	0	2	2	NSS
4	22GN40D8	CAMP-1	2	0	0	0	2	2	NSS
5	22GN40D9	CAMP-2	2	0	0	0	2	2	NSS

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.Architecture

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	BS&AE	3	0	0	0	3	3	Nil

		Structures - I								
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	PE							

		Photography								
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	279	

Name of the Program: B.Sc 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	3	0	2	4	**Nil**
2	22AEXT190	Human Values and Ethics (non gradial)	HSS	1	0	0	0	1	1	**Nil**

3	22COCA100	NSS/NCC/Physical Education and Yoga Practices	HSS	0	0	6	0	2	6	**Nil**
4	22AEXT391	Communication Skills and PersonalityDevelopment	HSS	1	0	3	0	2	4	**Nil**
5	22AGRO101	Agriculture Heritage	PC	1	0	0	0	1	1	**Nil**
6	22AGRO102	Fundamentals of Agronomy	PC	2	0	3	0	3	5	**Nil**
7	22BICM101	Fundamentals of Plant Biochemistry and Biotechnology	PC	2	0	3	0	3	5	**Nil**
8	22SSAC122	Fundamentals of Soil Science	PC	2	0	3	0	3	5	**Nil**
9	22AECO141	Fundamentals of Economics	PC	3	0	0	0	3	3	**Nil**
10	22HORT181	Fundamentals of Horticulture	PC	1	0	3	0	2	4	**Nil**
11	22AEXT191	Rural Sociology and Educational Psychology	PC	1	0	3	0	2	4	**Nil**
12	22CPHY161/SMCA101	Introductory Biology /Elementary Mathematics	PC	1	0	3	0	2	4	**Nil**
13	22AMBE101	Agricultural Microbiology	PC	1	0	3	0	2	4	**Nil**
14	22AGRO103	Introductory Agrometeorology and Climate Change	PC	1	0	3	0	2	4	**Nil**
15	22AGRO104	Introduction to Forestry	PC	1	0	3	0	2	4	**Nil**
16	22GPBR111	Fundamentals of Genetics	PC	2	0	3	0	3	5	**Nil**
17	22ENTO131	Fundamentals of Entomology I(Insect Morphology and Taxonomy)	PC	2	0	3	0	3	5	**Nil**
18	22AENG151	Soil and Water Conservation Engineering	PC	1	0	3	0	2	4	**Nil**
19	22CPHY162	Fundamentals of Crop Physiology	PC	2	0	3	0	3	5	**Nil**
20	22PATH171	Fundamentals of Plant Pathology I (Plant Pathogens - An Introduction)	PC	2	0	3	0	3	5	**Nil**
22	22HORT182	Production Technology of Fruits and Plantation Crops	PC	1	0	3	0	2	4	**Nil**
22	22AGIC101	INTRODUCTION TO COMPUTERS	PC	0	0	3	0	**1**	**3**	**Nil**
23	22AGRO201	Crop Production Technology - I *(Cereals, Millets and Pulses)*	PC	2	0	3	0	3	5	**Nil**
24	22GPBR221	Fundamentals of Plant Breeding	PC	2	0	3	0	3	5	**Nil**
25	22ENTO231	Fundamentals of Entomology II (Insect Ecology and Concepts of IPM)	PC	1	0	3	0	2	4	**Nil**
26	22AECO241	Agricultural Finance and Co-operation	PC	1	0	3	0	2	4	**Nil**
27	22AENG251	Farm Machinery and Power	PC	1	0	3	0	2	4	**Nil**
28	22CPHY261	Eco-physiology	PC	1	0	3	0	2	4	**Nil**

29	22PATH271	Fundamentals of Plant PathologyII(PlantPathologyPrinciples)	PC	1	0	3	0	2	4	**Nil**
30	22HORT281	Production Technology for Vegetables and Spices	PC	1	0	3	0	2	4	**Nil**
31	22AEXT291	Fundamentals of Agricultural Extension	PC	2	0	3	0	3	5	**Nil**
32	22COCA200	Education Tour**	PC	0	0	6	0	2	6	**Nil**
33	22AGRO202	Crop Production Technology - II(Oilseeds, Fibre, Sugar, Tobacco and Fodder crops)	PC	2	0	3	0	3	5	**Nil**
34	22AGRO203	Farming Systems and Sustainable Agriculture	PC	1	0	0	0	1	1	**Nil**
35	22AGRO204	Irrigation Water Management	PC	1	0	3	0	2	4	**Nil**
36	22SMCA201	Statistical Methods	PC	1	0	3	0	2	4	**Nil**
37	22LSPM201	Live-stock and Poultry Management	PC	2	0	3	0	3	5	**Nil**
38	22SSAC222	Manures, Fertilizers and Soil Fertility Management	PC	2	0	3	0	3	5	**Nil**
39	22AECO242	Agricultural Marketing, Trade and Prices	PC	2	0	3	0	3	5	**Nil**
40	22AENG252	Renewable Energy and Green Technology	PC	1	0	3	0	2	4	**Nil**
41	22HORT282	Production Technology for Ornamental Crops, Medicinal and Aromatic Plants and Landscaping	PC	1	0	3	0	2	4	**Nil**
42	22AEXT292	Entrepreneurship Development and Business Communication	PC	1	0	3	0	2	4	**Nil**
43	22AGRO301	Geoinformatics and Nanotechnology for Precision Farming	PC	2	0	3	0	2	5	**Nil**
44	22AGRO302	Practical Crop Production	PC	1	0	3	0	1	4	**Nil**
45	22BICM300	Principles of Food Science and Nutrition	PC	2	0	0	0	2	2	**Nil**
46	22GPBR311	Crop Improvement - I *(Cereals, Millets, Pulses and Oilseeds)*	PC	2	0	3	0	2	5	**Nil**
47	22GPBR313	Intellectual Property Rights	PC	1	0	0	0	1	1	**Nil**
48	22SSAC322	Problematic Soils and their Management	PC	2	0	3	0	2	5	**Nil**
49	22ENTO331	Pests of Field crops and Stored Grain and their Management	PC	3	0	3	0	3	6	**Nil**
50	22AENG351	Protected Cultivation and Post-harvest technologies	PC	2	0	3	0	2	5	**Nil**

51	22CPHY361	Environmental Studies and Disaster Management	PC	2	0	3	0	2	5	**Nil**
52	22PATH371	Diseases of Field and Horticultural Crops and their Management - I (Field Crops)	PC	3	0	3	0	3	6	**Nil**
53	22PATH373	Principles of Integrated Pest and Disease Management	PC	2	0	3	0	2	5	**Nil**
55	22AGRO303	Rainfed Agriculture and Watershed Management	PC	1	0	3	0	2	4	**Nil**
56	22AGRO304	Principles of Organic Farming	PC	1	0	3	0	2	4	**Nil**
57	22SMCA301	Agriculture Informatics	PC	1	0	3	0	2	4	**Nil**
58	22GPBR312	Crop Improvement-II *(Fibre, Sugar,Starches,Narcotics,Vegetables, Fruits and Flowers)*	PC	1	0	3	0	2	4	**Nil**
59	22GPBR314	Principles of SeedTechnology	PC	2	0	3	0	3	5	**Nil**
60	22ENTO332	Pest of Horticultural Crops and their Management and Beneficial insects	PC	2	0	3	0	3	5	**Nil**
61	22AECO341	Farm Management,Production and ResourceEconomics	PC	1	0	3	0	2	4	**Nil**
62	22PATH372	Diseases of Field and Horticultural Crops and their Management -II (Horticultural Crops)	PC	1	0	3	0	2	4	**Nil**
63	22HORT381	Post-harvest Management and Value Addition of Fruits and Vegetables	PC	1	0	3	0	2	4	**Nil**
64	22RAWE	Crop Production	PC	0	0	5	0	5	15	**Nil**
65	22RAWE	Crop Protection	PC	0	0	4	0	4	12	**Nil**
66	22RAWE	Rural Economics	PC	0	0	3	0	3	9	**Nil**
67	22RAWE	Extension Programme	PC	0	0	4	0	4	12	**Nil**
68	22RAWE	Research Station / KVK /DAATT Centre activities and attachment to Agro based industries	PC			4		4	12	**Nil**
69	22ELP	Experiential LearningProgramme (ELP)	PC					**0+ 20**	**60**	**Nil**
70	22ELCT222	Soil, Plant, Water and Seed Testing	PE	1	0	6	0	1	3	**Nil**
71	22ELCT272	Food Safety Issues	PE	2	0	3	0	2	3	**Nil**
72	22ELCT283	Hi-tech. Horticulture	PE	2	0	3	0	2	3	**Nil**
73	22ELCT305	Agricultural Waste Management	PE	2	0	3	0	2	3	**Nil**
74	22ELCT306	Weed Management	PE	2	0	3	0	2	3	**Nil**
75	22ELCT315	Commercial Plant Breeding	PE	1	0	6	0	1	3	**Nil**
76	22ELCT333	Biopesticides and Biofertilizers	PE	2	0	3	0	2	3	**Nil**

77	22ELCT334	Agrochemicals	PE	2	0	3	0	2	3	**Nil**
78	22ELCT342	Agribusiness Management	PE	2	0	3	0	2	3	**Nil**
79	22ELCT362	Micro propagation Technologies	PE	1	0	6	0	1	3	**Nil**
80	22ELCT382	Landscaping	PE	2	0	3	0	2	3	**Nil**
81	22ELCT383	Protected Cultivation	PE	2	0	3	0	2	3	**Nil**
Total Credits								**20 6**	**42 3**	

Name of the Program: BBA

SNO	**COURSE CODE**	**COURSE NAME**	**Type**	**L**	**T**	**P**	**S**	**CR**	**CH**	**Pre requisites**
1	22UC1101	Integrated professional English	HSS	0	0	4	0	2	2	NIL
2	22BB11C6	Ecology & Environment	HSS	2	0	0	0	2	2	NIL
3	20UC1202	English Proficiency	HSS	0	0	4	0	2	2	NIL
4	22BB11K1	Foreign Language	HSS	2	0	2	0	3	3	NIL
5	22UC2103	Essential Skills for Employability	HSS	0	0	4	0	2	2	NIL
6	22UC1203	DesignThinking and Innovation	HSS	0	0	4	0	2	4	NIL
7	21UC2204	Corporate Readiness Skills	HSS	0	0	2	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	22BB10P0	SIP1	PC	0	0	0	24	6	0	NIL
20	22BB21C1	Management Accountancy	PC	3	1	0	0	4	4	NIL
21	22BB21C3	Human Resource Management	PC	3	0	0	0	3	3	NIL
22	22BB21C4	Business Research Methods	PC	3	0	0	0	3	3	NIL
23	22BB21C5	Macro Economics	PC	3	0	0	0	3	3	NIL
24	22BB21C6	Fundamentals of LSCM	PC	3	0	0	0	3	3	NIL
25	22BB22C0	Cost Accountancy	PC	3	1	0	0	4	4	NIL
26	22BB22C1	Production and Operations Management	PC	3	1	0	0	4	4	NIL
27	22BB22C3	Business Law	PC	3	0	0	0	3	3	NIL

28	22BB22C4	Financial Management	PC	3	1	0	0	4	4	NIL
29	22BB22C5	Business Model Generation	PC	3	0	0	0	3	3	NIL
30	22BB22C7	Dynamics of Capital Markets	PC	3	0	0	0	3	3	NIL
31	22BB20P1	SIP2	PC	0	0	0	24	6	0	NIL
32	22BB31C0	Business analytics	PC	2	0	2	0	3	4	NIL
33	22BB31C2	Fundamentals of Digital Marketing	PC	3	0	0	0	3	3	NIL
34	22BB31C7	Research Paper Writing	PC	1	0	0	8	3	9	MM, FM, BRM
35	22BB32C0	Entrepreneurship	PC	3	0	0	0	3	3	NIL
36	22BB32C4	Strategic Management	PC	3	0	0	0	3	3	NIL
37	22BB32C2	Enterprise Resource Planning	PC	3	0	0	0	3	3	NIL
38	22BB32C3	Income Tax & GST	PC	3	0	0	0	3	3	NIL
39	22BB30P2	SIP3	PC	0	0	0	24	6	0	NIL
40	22BB31M0/22BB31F0/22BB31H0/22BB31E0/22BB31D0	Consumer Behaviour/Banking & Insurance Management/Personal Effectiveness and Self-Leadership/E-Commerce and Strategy/ntroduction to Software Engineering	PE	3	0	0	0	3	3	NIL
41	22BB31M1/22BB31F1/22BB31H1/22BB31E1/22BB31D1	Product and Brand Management/Investment Management/Dynamics of industrial relations/Search Engine Optimisation/ERP Systems Design and Implementation	PE	3	0	0	0	3	3	NIL
42	22BB31M2/22BB31F2/22BB31H2/22BB31E2/22BB31D2	Advertising and Sales Promotion/Financial Services/Human Resource Development/Social Media Management/ERP System Administration	PE	3	0	0	0	3	3	NIL
43	22BB31M3/22BB31F3/22BB31H3/22BB31E3/22BB31D3	Customer Relationship Management/Financial Mkts/Performance Mgt & Reward System/Digital Branding and Planning/CRM in ERP Environment	PE	3	0	0	0	3	3	NIL
44	22BB31M4/22BB31F4/22BB31H4/22BB31E4/22BB31D4	Services Marketing/Managing personal finance/Labour Legislation/Web Analytics and Affiliate Marketing/ERP in MSMEs	PE	3	0	0	0	3	3	NIL

45	22BB31M4/22BB31F4/22BB31H4/22BB31E4/22BB31D4	Rural Marketing/Financial Derivatives/training& development/DigitaL Marketing Strategy/Information Systems	PE	3	0	0	0	3	3	NIL
		TOTAL NO OF CREDITS						145		

Name of the Program BBA BA

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	22UC0009	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	22UC2203	Essential Skills for Employability	HSS	0	0	4	0	2	4	NIL
6	22UC2204	Corporate Readiness Skills	HSS	0	0	4	0	2	4	NIL
7	22HS115	Soft Skills for Managers/	HSS	2	0	2	0	3	4	NIL
8	22BS114	Business Mathematics	BS	3	1	0	0	4	4	NIL
9	22BS115	Business Statistics	BS	3	1	0	0	4	4	NIL
10	22BB11C2	Business Environment	PC	3	0	0	0	3	3	NIL
11	22BB11C3	Business Economics	PC	3	0	0	0	3	3	NIL
12	22BB11C4	Perspectives of Management	PC	3	0	0	0	3	3	NIL
13	22BB11C5	IT for Business Managers	PC	2	0	2	0	3	3	NIL
14	22BB12C1	Introduction to Financial Accounting	PC	3	1	0	0	4	4	NIL
15	22BB12C3	Organizational Behaviour	PC	3	0	0	0	3	3	NIL
16	22BB22C2	Management Information Systems	PC	3	0	0	0	3	3	NIL
17	22BB22C2	Marketing Management	PC	3	0	0	0	3	3	NIL
18	22BB10P0	SIP1	PC	0	0	0	24	6	0	NIL
19	22BB22C1	Management Accountancy	PC	3	1	0	0	4	4	NIL
20	22BB22C3	Human Resource Management	PC	3	0	0	0	3	3	NIL
21	22BB22C4	Business Research Methods	PC	3	0	0	0	3	3	NIL
22	22BB22C5	Macro Economics	PC	3	0	0	0	3	3	NIL
23	22BB22C6	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	222BB20P1	SIP2	PC	0	0	0	24	6	0	NIL
31	22BB31C0	Business analytics	PC	2	0	2	0	3	4	NIL
32	22BB31C2	Fundamentals of Digital Marketing	PC	3	0	0	0	3	3	NIL
33	22BB31C7	Research Paper Writing	PC	1	0	0	8	3	9	MM, FM, BRM
34	22BB32C0	Entrepreneurship	PC	3	0	0	0	3	3	NIL
35	22BB32C4	Strategic Management	PC	3	0	0	0	3	3	NIL
36	22BB32C2	Enterprise Resource Planning	PC	3	0	0	0	3	3	NIL
37	22BB32C3	Income Tax & GST	PC	3	0	0	0	3	3	NIL
38	22BB31B0	Business Intelligence and Data Mining	PC	2	0	2	0	3	4	NIL
39	22BB31B1	Data Visualization with Tableau/	PC	2	0	2	0	3	4	NIL
40	22BB31B2	Business Analytics with R Programming	PC	2	0	2	0	3	4	NIL
41	22BB31B4	Introduction to Python	PC	2	0	2	0	3	4	NIL
42	22BB31B5	Advanced Excel	PC	2	0	2	0	3	4	NIL
43	22BB30P2	SIP3	PC	2	0	2	0	3	4	NIL
			TOTAL CREDITS					137		

Name of the Program : Bachelor of Computer Applications(BCA)

S No	Course Code	Course Title	Category	L	T	P	S	Cr	CH	Pre-requisite
1	22UC1101	Integrated Professional English(HSS1)	HSS	**0**	**0**	**4**	**0**	**2**	**4**	
2	20UC1202	English Proficiency(HSS2)	HSS	**0**	**0**	**4**	**0**	**2**	**4**	
3	22UC2103	Design Thinking & Innovation(HSS3)	HSS	**0**	**0**	**4**	**0**	**2**	**4**	
4	22UC2105	Essential Life Skills(HSS4)	HSS	**0**	**0**	**4**	**0**	**2**	**4**	
5	22UC0010	Universal Human Values & Professional Ethics(HSS5)	HSS	**2**	**0**	**0**	**0**	**2**	**2**	
6	22FL3055	GERMAN LANGUAGE - Foreign Language(HSS6)	HSS	**2**	**0**	**0**	**0**	**2**	**2**	
7	22UC2204	Corporate Readiness Skills(HSS7)	HSS	**0**	**0**	**4**	**0**	**2**	**4**	
8	22CA1104	Mathematics for Computer Science(BS1)	BS	**3**	**1**	**0**	**0**	**4**	**4**	

9	22UC0009	Ecology & Environment(BS2)	BS	**2**	**0**	**0**	**0**	**2**	**2**	
10	22CA1101	Problem Solving through Programming	PC	**3**	**0**	**2**	**4**	**5**	**9**	
11	22CA1102	Computer Organization & Architecture	PC	**3**	**1**	**0**	**0**	**4**	**4**	
12	22CA1103	Essentials of Information Technology	PC	**3**	**0**	**2**	**0**	**4**	**5**	
13	22CA1205	Operating System	PC	**3**	**1**	**0**	**0**	**4**	**4**	
14	22CA1206	Data Structures	PC	**3**	**0**	**2**	**0**	**4**	**5**	
15	22CA1207	Object Oriented Programming	PC	**3**	**0**	**2**	**4**	**5**	**9**	
16	22CA1210	Database Management Systems	PC	**3**	**0**	**2**	**4**	**5**	**9**	
17	22CA1209	Web and Social Media Technologies	PC	**0**	**0**	**4**	**0**	**2**	**4**	
18	22CA2109	Software Engineering	PC	**2**	**1**	**0**	**0**	**3**	**3**	
19	22CA2110	Mobile Application Development	PC	**3**	**0**	**2**	**4**	**5**	**9**	
20	22CA2111	Computer Networks	PC	**3**	**0**	**0**	**0**	**3**	**3**	
21	22CA2112	Web Development using Python	PC	**3**	**0**	**2**	**4**	**5**	**9**	
22	22CA2213	Java Full Stack Development	PC	**3**	**0**	**2**	**4**	**5**	**9**	
23	22CA2214	Object Oriented Analysis & Design	PC	**3**	**0**	**2**	**4**	**5**	**9**	
24	22CA21C1/22CA21D1/22CA21A1/22CA21I1	PE-1	PE	2	0	2	0	3	4	
25	22CA22C1/22CA22D2/22CA22A2/22CA22I2	PE-2	PE	**2**	**0**	**2**	**0**	**3**	**4**	
26	22CA31C3/22CA31D3/22CA31I3	PE3	PE	2	0	2	0	3	4	
27	22CA32C4/22CA32D4/22CA32A4/22CA32I4	PE4	PE	2	0	2	0	3	4	
	22CA32C5/22CA32D5/22CA32A5/22CA32I5	PE5	PE	**2**	**0**	**2**	**4**	**4**	**8**	
28	22GN40D1/22GN40D4/21CE40A5/20ME40B4	OE1	OE	**3**	**0**	**0**	**0**	**3**	**3**	

29	22GN40D2/22GN40D5/20ME40B6/21EL40B2	OE2	OE	**3**	**0**	**0**	**0**	**3**	**3**	
30	22GN40D3/22GN40D6/21MB4055/21MB4051	OE3	OE	**3**	**0**	**0**	**0**	**3**	**3**	
31	22CA21N0	Internship-1	PR	**0**	**0**	**4**	**0**	**2**	**4**	
32	22CA 22E1	Term Paper	PR	**2**	**0**	**0**	**0**	**2**	**2**	
33	22CA31N1	Internship-2	PR	**0**	**0**	**4**	**0**	**2**	**4**	
34	22CA32E2	Major Project	PR	**0**	**0**	**20**	**0**	**10**	**20**	
Total Credits								**120**		

Name of the Program: BA

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	22UC1212	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	2	2	2	4	YES
7	22UC3206	Problem Solving Skills-II	HSS	0	0	2	2	2	2	YES
8	22UC1102	Design Thinking and Innovation	HSS	1	0	0	4	2	2	NIL
9	22UC2204	Corporate Readiness Skills	HSS	0	0	4	0	2	2	NIL
10	22UC0009	Ecology and Environment	BS	2	0	0	0	2	2	NIL
11	22BA1101	Ancient Indian History	PC	4	0	0	0	4	4	NIL
12	22BA1103	Introduction to Public Administration	PC	4	0	0	0	4	4	NIL
13	22BA1201	Medieval Indian History	PC	4	0	0	0	4	4	NIL
14	22BA1203	Administrative Theory	PC	4	0	0	0	4	4	NIL
15	22BA1206	Science and Technology	PC	3	0	0	0	3	0	NIL
16	22BA2101	Indian History & Culture 1526 – 1857	PC	4	0	0	0	4	4	NIL
17	22BA2103	Union Administration	PC	4	0	0	0	4	4	NIL
18	22BA2201	History of Modern India (1858-1947)	PC	4	0	0	0	4	4	NIL
19	22BA2203	State and Local Administration	PC	4	0	0	0	4	4	NIL
20	22GN3101	International Relations	PC	3	0	0	0	3	3	NIL
21	22GN3102	Disaster Management	PC	2	0	0	0	2	2	NIL

22	22GN3103	Internal Security	PC	3	0	0	0	3	3	NIL
23	22GN3202	Social Problems and Programs in India	PC	3	0	0	0	3	3	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 study	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 Geography of India	PE	4	0	0	0	4	4	NIL
55	22BA3204	Environmental Geography	PE							NIL
56	22BA3208	Economics of Health and Education	PE							NIL
57	22BA3209	Public Finance	PE							NIL
58	22BA3210	Literacy criticism	PE							NIL

59	22BA3211	History of Tradiotional 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	22BA4101	Contemporary Indian History	PE	4	0	0	0	4	4	NIL
63	22BA4102	Gender and women in History	PE							NIL
64	22BA4103	Comparative Public Administration	PE	4	0	0	0	4	4	NIL
65	22BA4104	Financial Administration	PE							NIL
66	22BA4108	Agricultural economics	PE	4	0	0	0	4	4	NIL
67	22BA4109	Industrial Economics	PE							NIL
68	22BA4107	Economic Geography	PE							NIL
69	22BA4110	Regional Planning and Development	PE							NIL
70	22BA4111	History of Modern Telugu Literature I	PE							NIL
71	22BA4112	Telugu Journalism and Mass communications I	PE							NIL
72	22BA4201	Contemporary History of Andhra Pradesh	PE	4	0	0	0	4	4	NIL
73	22BA4202	Tourism Marketing and Management	PE							NIL
74	22BA4203	Rural Local Geovenance	PE	4	0	0	0	4	4	NIL
75	22BA4204	Urban Local Geovenance	PE							NIL
76	22BA4205	Labour Economics	PE	4	0	0	0	4	4	NIL
77	22BA4206	Mathematical Economics	PE							NIL
78	22BA4207	Resource Geography	PE							NIL
79	22BA4208	Geography of Tourism	PE							NIL
80	22BA4209	Telugu Anuvadam	PE							NIL
81	22BA4210	Telugu Folk literature- Kalalu and Kalarupalu	PE							NIL
82	22GN3201	Project Work	PR	0	0	12	0	6	12	NIL
83	22GN4101	Academic Research Dissertation	PR	0	0	12	0	6	12	NIL
84	22GN4201	Academic Research Publication	PR	0	0	12	0	6	12	NIL
85	22GN2101	Computer Skills	SK	2	0	2	0	3	4	NIL
86	22GN2207	Statistics with R Programme	SK	2	0	2	0	3	4	NIL

Name of the Program: B.Sc Visual Communication

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	22GN11T1/19LN1207	Language -Telugu/French	HSS	2	0	0	0	2	2	Nil

3	22UC0010	Universal Human Values & Professional Ethics	HSS	2	0	0	0	2	2	Nil
4	22UC1203	Design Thinking and Innovation	HSS	1	0	0	4	2	5	Nil
5	22UC2103	Professional Communication Skills	HSS	0	0	4	0	2	4	Nil
6	22UC0009	Ecology & Environment	BS	2	0	0	0	2	2	Nil
7	22VC1101	Introduction to Visual Communication	PC	3	0	0	0	3	3	Nil
8	22VC1102	Color theory	PC	2	0	0	0	2	2	Nil
9	22VC1103	Introduction to Drawing	PC	1	0	6	0	4	7	Nil
10	22VC1104	Introduction ot Photography	PC	0	0	6	0	3	6	Nil
11	22VC1105	Writing for Media	PC	0	0	6	0	3	6	Nil
12	22VC1201	Sketching	PC	0	0	8	0	4	8	Nil
13	22VC1202	Introduction to Film Studies	PC	3	0	0	0	3	3	Nil
14	22VC1203	Previsualization	PC	0	0	2	0	1	2	Nil
15	22VC1204	Basics of Graphic Design	PC	0	0	6	0	3	6	Nil
16	22VC1205	Production Management	PC	0	0	8	0	4	8	Nil
17	22VC2101	Cinematic Lighting	PC	0	0	6	0	3	6	Nil
18	22VC2102	Visual Analysis Tools	PC	3	0	0	0	3	3	Nil
19	22VC2103	Graphic Design advanced	PC	0	0	6	0	3	6	22VC1204
20	22VC2104	Principles of cinematography	PC	0	0	6	0	3	6	Nil
21	22VC2105	Modeling	PC	0	0	8	0	4	4	Nil
22	22VC2106	Texturing	PC	0	0	6	0	3	6	Nil
23	22VC2201	Medial Laws and Ethics	PC	3	0	0	0	3	3	Nil
24	22VC2202	Elements of Film	PC	3	0	0	0	3	3	Nil
25	22VC2203	Television Production	PC	0	0	6	0	3	6	Nil
26	22VC2204	Introduction to Post Production Tools	PC	0	0	6	0	3	6	Nil
27	22VC2205	3D Animation & Rigging	PC	0	0	0	12	3	12	Nil
28	22VC2206	Lighting & Rendering	PC	0	0	6	0	3	6	Nil
29	22VC2207	Mini Project	PC	0	0	4	0	2	4	Nil
30	22VC3101	Media Research Methods	PC	1	0	4	0	3	5	Nil
31	22VC3102	Advertising and Public Relations	PC	3	0	0	0	3	3	Nil
32	22VC3103	Practical Filmmaking	PC	0	0	6	0	3	6	Nil
33	22VC3104	Composting Techniques	PC	0	0	4	0	2	4	Nil
34	22VC3105	3D Dynamics	PC	0	0	6	0	3	6	Nil
35	22VC3106	Character Animation	PC	0	0	6	0	3	6	Nil
36	22VC3107	UI & UX Design	PC	0	0	6	0	3	6	Nil

37	22VC4049	Major Project	PC	0	0	16	0	8	16	Nil
38	22VC4050	Portfolio/Presentation	PC	0	0	8	0	4	8	Nil
39	22IE4051	Internship	PC	0	0	16	0	8	16	Nil
40	18OE40G5	Photography	OE	2	0	4	0	4	6	Nil
Total Credits				34	0	##	20	**121**	226	

Name of the Program: B.Sc Computer Science

Sl No	Course Code	Course Title	Category	L	T	P	S	Cr	CH	Pre-requisite
1	22UC1101	Integrated Professional English(HSS1)	HSS	0	0	4	0	2	4	
2	22UC1202	English Proficiency(HSS2)	HSS	0	0	4	0	2	4	
3	22UC1203	Design Thinking & Innovation(HSS3)	HSS	0	0	4	0	2	4	
4	22UC2105	Essential Life Skills(HSS4)	HSS	0	0	4	0	2	4	
5	22UC0010	Universal Human Values & Professional Ethics(HSS5)	HSS	2	0	0	0	2	2	
6	22FL3055	GERMAN LANGUAGE - Foreign Language(HSS6)	HSS	2	0	0	0	2	2	
7	22BC1101	Discrete Mathematics(BS1)	BS	3	1	0	0	4	4	
8	22BC2101	Probability and Statistics (BS2)	BS	3	1	0	0	4	4	
9	22BC2200	Linear Algebra (BS3)	BS	3	1	0	0	4	4	
10	22UC0009	Ecology & Environment(BS4)	BS	2	0	0	0	2	2	
11	22CA1101	Problem Solving through Programming	PC	3	0	2	4	5	9	
12	22CA1102	Computer Organization & Architecture	PC	3	1	0	0	4	4	
13	22CA1103	Essentials of Information Technology	PC	3	0	2	0	4	5	
14	22CA1205	Operating System	PC	3	1	0	0	4	4	
15	22CA1206	Data Structures	PC	3	0	2	0	4	5	
16	22CA1207	Object Oriented Programming	PC	3	0	2	4	5	9	
17	22CA1210	Database Management Systems	PC	3	0	2	4	5	9	
18	22BC2102	Artificial Intelligence	PC	3	0	2	0	4	5	
19	22CA2109	Software Engineering	PC	2	1	0	0	3	3	
20	22CA2111	Computer Networks	PC	3	0	0	0	3	3	
21	22BC2201	Cloud Computing	PC	3	0	2	4	5	9	
22	22CA2213	Java Full Stack Development	PC	3	0	2	4	5	9	
23	22BC3101	Machine Learning	PC	3	0	0	0	3	3	
24	22BC3201	Theory of Computation	PC	3	1	0	0	4	4	
25	22BC3202	Microprocessor and Applications	PC	3	0	2	0	4	5	

26	22BC31D1/22BC31C1	PE1	PE	3	0	2	4	5	9	
27	22BC31D2/22BC31C2//22BC31A2	PE2	PE	3	0	2	4	5	9	
28	22BC31D3/22BC31C3/22BC31A3	PE3	PE	3	0	2	4	5	9	
29	22BC32D4/22BC32C4	PE4	PE	2	0	2	0	3	4	
30	22BC32D5/22BC32C5/22BC32A5	PE5	PE	2	0	2	4	4	8	
31	22CA21N0	Internship-I	PR	0	0	4	0	2	4	
32	22CA31N1	Internship-II	PR	0	0	4	0	2	4	
33	22CA32E2	Project Work	PR	0	0	12	0	6	12	
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	3	
2	22UC2203L	Legal Professional Communication Skills (English – II)	HSS	1	0	4	0	3	5	
3	22BL12C3	Sociology	HSS	3	1	0	0	4	4	
4	22BL11C1	Principles of Management	PC	3	1	0	0	4	4	
5	22BL11C2	Business Environment	PC	3	1	0	0	4	4	
6	22BL12C1	Human Resource Management	PC	3	1	0	0	4	4	
7	22BL12C2	Principles of Economics and Managerial Economics	PC	3	1	0	0	4	4	
8	22BL22C1	Marketing Management	PC	3	1	0	0	4	4	
9	22BL22C2	Macro Economics	PC	3	1	0	0	4	4	
10	22BL22C3	Financial and Cost Accountancy	PC	3	1	0	0	4	4	
11	22BL22C1	Management Accounting	PC	3	1	0	0	4	4	
12	22BL22C2	Management Information Systems	PC	3	1	0	0	4	4	
13	22BL31C1	Organisational Behaviour	PC	3	1	0	0	4	4	
14	22BL31C2	Financial Management	PC	3	1	0	0	4	4	

15	22BL32C1	Quantitative Methods	PC	3	1	0	0	4	4	
16	22BL11C3	Law of Contracts - I	PC	3	1	0	0	4	4	
17	22BL11C4	Introduction to Law and Legal system	PC	3	1	0	0	4	4	
18	22BL12C4	Law of Contracts – II	PC	3	1	0	0	4	4	
19	22BL12C5	Law of Torts	PC	3	1	0	0	4	4	
20	22BL22C4	Constitutional Law - I	PC	3	1	0	0	4	4	
21	22BL22C5	Law of Crimes – I	PC	3	1	0	0	4	4	
22	22BL22C6	Family Law - I	PC	3	1	0	0	4	4	
23	22BL22C3	Company Law	PC	3	1	0	0	4	4	
24	22BL22C4	Constitutional Law – II	PC	3	1	0	0	4	4	
25	22BL22C5	Jurisprudence	PC	3	1	0	0	4	4	
26	22BL22C6	Family Law - II	PC	3	1	0	0	4	4	
27	22BL31C3	Code of Civil Procedure and Law of Limitation	PC	3	1	0	0	4	4	
28	22BL31C4	Law of crimes-II	PC	3	1	0	0	4	4	
29	22BL31C5	Law of Evidence	PC	3	1	0	0	4	4	
30	22BL31C6	Law of Property	PC	3	1	0	0	4	4	
31	22BL32C2	Administrative Law	PC	3	1	0	0	4	4	
32	22BL32C3	Labour Law - I	PC	3	1	0	0	4	4	
33	22BL32C4	Law of Banking and N.I. Act	PC	3	1	0	0	4	4	
34	22BL41C1	Intellectual Property Rights	**PC**	3	1	0	0	4	4	
35	22BL41C2	Law of Insurance	**PC**	3	1	0	0	4	4	
36	22BL41C3	Public International Law	**PC**	3	1	0	0	4	4	
37	22BL41C4	Labour Laws-II	**PC**	3	1	0	0	4	4	
38	22BL42C1	Corporate Law & Governance	**PC**	3	1	0	S	4	4	
39	22BL42C2	Law of Taxation	**PC**	3	1	0	0	4	4	
40	22BL42C3	Environmental Law	**PC**	3	1	0	0	4	4	
41	22BL51C1	Mediation and Conciliation and Arbitration	**PC**	3	0	2	0	4	4	
42	22BL51C2	Drafting, Pleading and Conveyance	**PC**	2	0	4	0	4	4	
43	22BL51C3	I.T. Offences & Cyber Law	**PC**	3	1	0	0	4	4	
44	22BL52C1	Professional Ethics and Professional Accountancy system	**PC**	2	0	4	0	4	4	
45	22BL32C5	Elective - 1 (Women and Law)	PE	3	1	0	0	4	4	
46	22BL32C6	Current Affairs and GS-1 (India History)	**PE**							
47	22BL41C5	Elective-2 (Juvenile Justice)	**PE**	3	1	0	0	4	4	

48	22BL41C6	Current Affairs and GS-2 (Political Science and Public Administration) (Old one Anthropology, Science and Civilization)	**PE**							
49	22BL42C4	Law Elective-3 (Media Law and Right to Information Act)	**PE**	3	1	0	0	4	4	
50	22BL42C5	Current Affairs and GS-3 (Geography and International Relations)	PE							
51	22BL51C5	Law Elective - 4 (Criminology, Penology, and Victimology)	**PE**	3	1	0	0	4	4	
52	22BL51C6	Current Affairs and General Studies -4	**PE**							
53	22BL51C4	Aptitude for Advocacy - I	**SKILL**	2	1	0	0	3	3	
54	22BL52C2	Aptitude for Advocacy - II	**SKILL**	2	0	2	0	3	4	
55	22BL52C3	Higher Judiciary (Theory)	**SKILL**	2	1	0	0	3	3	
56	22BL11C5	Introduction to I.T.	SKILL	2	0	2	0	3	4	
57	22BL22C7	Moot Court Training – I	SKILL	1	0	2	0	2	0	
58	22BL32C7	Moot Court Training - II	SKILL	1	0	2	0	2	2	
59	22BL41C7	Soft Skills-1	SKILL	1	0	4	0	3	5	
60	22BL42C6	Moot Court-III	SKILL	1	0	2	0	2	4	
61	22BL42C7	Soft Skills-2	SKILL	1	0	4	0	3	5	
62	22BL51C7	Moot Court - IV	SKILL	0	0	0	4	1	4	
63	22BL52C4	Higher Judiciary (Internship)	SKILL	0	0	4	0	2	0	
64	22BL52C5	Moot Court Exercises	SKILL	0	0	8	0	4	0	
65	22BL12SIP1	Industry: NO CREDITS	SKILL	0	0	0	0	0	0	
66	22BL22SIP2	Industry	SKILL	0	0	4	0	2	0	
67	22BL23SIP3	Advocate/District	SKILL	0	0	0	2	2	0	
68	22BL42SIP4	Advocate District	SKILL	0	0	4	0	2	0	
69	22BL52C6	Commercial Contract Management	SKILL	0	0	4	0	2	2	
70	22BL52C7	Seminar	PR							
71	22BL51C8	Seminar	PR	0	0	4	0	2	2	
TOTAL				#	45	64	6	231	230	

Name of the Program: B.Sc Hotel Management

Sl No	Course Code	Course Title	Category	L	T	P	S	Cr	CH	Pre-requisite
1	22UC1101	Integrated Professional	HSS	0	0	4	0	2	4	Nil

		English								
2	22UC1202	English Proficiency	HSS	0	0	4	0	2	4	Nil
3	22UC1102	Design Thinking & Innovation	HSS	0	0	4	0	2	4	Nil
4	22UC0010	Universal Human values & Professional Skills	HSS	2	0	0	0	2	2	Nil
5	22HM31K12	French for Hotel Professionals	HSS	3	0	0	0	3	3	Nil
6	22UC0007	Indian Heritage & Culture	HSS	2	0	0	0	0	2	Nil
7	22UC0009	Ecology & Environment	BS	2	0	0	0	0	2	Nil
8	22HM11C6	Introduction to Food Production	PC	2	0	4	0	4	6	Nil
9	22HM11C7	Introduction to Food & Beverage Service	PC	2	0	2	0	3	4	Nil
10	22HM11C8	Introduction to House Keeping	PC	2	0	2	0	3	4	Nil
11	22HM11C9	Introduction to Front Office	PC	2	0	2	0	3	4	Nil
12	22HM11K1	Food Safety & Hygiene	PC	3	0	0	0	3	3	Nil
13	22HM11K2	Introduction to Information Technology	PC	2	0	2	0	3	4	Nil
14	22HM12C6	Principles of Food Production	PC	2	0	4	0	4	6	Nil
15	22HM12C7	Principles of Food & Beverage Service	PC	2	0	2	0	3	4	Nil
16	22HM12C8	Principles of House Keeping	PC	2	0	2	0	3	4	Nil
17	22HM12C9	Principles of Front Office	PC	2	0	2	0	3	4	Nil
18	22HM12K3	Principles of Food Science & Nutrition	PC	3	0	0	0	3	3	Nil
19	22HM10N0	Basic Training (2 Months)	PC	0	0	0	36	9	36	Nil
20	22HM21C6	Food Production Operations	PC	2	0	4	0	4	6	Nil
21	22HM21C7	Food & Beverage Services Operations	PC	2	0	2	0	3	4	Nil
22	22HM21C8	Accommodation Operations	PC	2	0	2	0	3	4	Nil
23	22HM21K4	Hospitality law	PC	3	0	0	0	3	3	Nil
24	22HM21K5	Hotel Accountancy	PC	3	0	0	0	3	3	Nil
25	22HM22C6	Food Production Management	PC	2	0	4	0	4	6	Nil
26	22HM22C7	Food & Beverage Services Management	PC	2	0	2	0	3	4	Nil
27	22HM22C8	Accommodation Management	PC	2	0	2	0	3	4	Nil
28	22HM22K6	Facility Planning	PC	3	0	0	0	3	3	Nil

29	22HM22K7	Food & Beverage Quality Control	PC	3	0	0	0	3	3	Nil
30	22HM22K8	Entrepreneurship Management	PC	3	0	0	0	3	3	Nil
31	22HM20N0	Interim Training	PC	0	0	0	36	9	36	Nil
32	22HM31A1	Entrepreneur Soft Skills for Hospitality Professionals	PC	1	0	4	0	3	5	Nil
33	22HM31K9	Hospitality Services Marketing	PC	2	0	2	0	3	4	Nil
34	22HM31K10	Human Resource Management	PC	3	0	0	0	3	3	Nil
35	22HM31K11	Travel & Tourism Management	PC	3	0	0	0	3	3	Nil
36	22HM32N0	Intensive Internship	PC	0	0	0	80	20	80	Nil
37	22HM41A2	Campus to Hospitality Industry	PC	1	0	4	0	3	4	Nil
38	22HM41K13	Total Quality Management	PC	3	0	0	0	3	3	Nil
39	22HM41K14	Customer Relationship Management	PC	3	0	0	0	3	3	Nil
40	22HM41K15	Organization Behaviour in Hospitality Industry	PC	3	0	0	0	3	3	Nil
41	22HM42N0	Intensive Internship	PC	0	0	0	80	20	80	Nil
	22HM31E6	Advanced Food Production	PE							Nil
	22HM31E7	Advanced Food & Beverage Services	PE							22HM31E6
42	22HM31E8	Advanced Accommodation Services	PE	2	0	4	0	4	6	22HM41E6
	22HM41E6	Advanced Food Production Management - I	PE							Nil
	22HM41E7	Advanced Food & Beverage Services Management - I	PE							22HM31E7
43	22HM41E8	Advanced Accommodation Management - I	PE	2	0	4	0	4	6	22HM41E7
	22HM41E9	Advanced Food Production Management - II	PE							Nil
	22HM41E10	Advanced Food & Beverage Services Management - II	PE							22HM31E8
44	22HM41E11	Advanced Accommodation Management - II	PE	2	0	4	0	4	6	22HM41E8
TOTAL CREDITS								171		

Name of Program: B.Com (H)

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	
2	22UC1202	English Proficiency	HSS	0	0	4	0	2	4	
3	22UC0010	Universal Human values and professional Ethics	HSS	2	0	0	0	2	2	
4	22UC2103	Essential Skills for Employability	HSS	0	0	4	0	2	4	
5	22FL1203	Foreign Language (German)	HSS	2	0	0	0	2	2	
6	22CM2123	Business Mathematics & Statistics	BS	3	2	0	0	5	5	
7	22UC0009	Ecology & Environment	BS	2	0	0	0	2	2	
8	22CM1101	Business Technology	PC	3	2	0	0	5	5	
9	22CM1102	Fundamentals of Cost Accounting	PC	3	2	0	0	5	5	
10	22CM1103	Principles of Management	PC	3	0	0	0	3	3	
11	22CM1104	Basics of Excel	PC	2	0	2	0	3	4	
12	22CM1211	Introduction to income tax	PC	3	2	0	0	5	5	
13	22CM1212	Corporate and Business law	PC	4	0	0	0	4	4	
14	22CM1213	Advanced Excel	PC	2	0	2	0	3	4	
15	22CM2121	Introduction to Corporate Accounting	PC	3	2	0	0	5	5	
16	22CM2122	Banking Law and Practice	PC	3	0	0	0	3	3	
17	22CM2231	Advanced Corporate Accounting	PC	3	2	0	0	5	5	
18	22CM2232	Corporate Financial Reportinng	PC	3	0	0	0	3	3	
19	22CM2233	Introduction to Business Analytics	PC	2	0	2	0	3	4	
20	22CM3141	Goods and Service Tax	PC	3	2	0	0	5	5	
21	22CM3142	Business Strategy	PC	3	0	0	0	3	3	
22	22CM3143	Financial Analytics	PC	2	0	2	0	3	4	
23	22CM3144	Security Analysis & Portfolio Management	PC	3	2	0	0	5	5	
24	22CM1105	Principles of Accounting (B.Com(H))	PE 1	3	2	0	0	5	5	
25	22CM1106	Financial Accounting (ACCA)	PE 1	3	2	0	0	5	5	
26	22CM1107	International Financial Accounting & Reporting - I (CPA)	PE 1	3	2	0	0	5	5	
27	22CM1214	Advanced Cost Accounting (B.com(H))	PE 2	3	2	0	0	5	5	
28	22ACCAF7	Financial Reporting (ACCA)	PE 2	3	2	0	0	5	5	
29	22CM1215	International Financial Accounting&Reporting - II (CPA)	PE 2	3	2	0	0	5	5	

30	22CM2124	Business Valuation (B.Com(H) & CPA)	PE 3	3	2	0	0	5	5	
31	22ACCAF9	Financial Management (ACCA)	PE 3	3	2	0	0	5	5	
32	22CM2125	Cost and Management Accounting (B.Com(H))	PE 4	3	2	0	0	5	5	
33	22CM2126	Management Accounting (ACCA)	PE 4	3	2	0	0	5	5	
34	22CM2127	Internationa finance (CPA)	PE 4	3	2	0	0	5	5	
35	22CM2234	Project Management ((B.Com(H) & CPA)	PE 5	3	2	0	0	5	5	
36	22CM2235	Peroformance Management (ACCA)	PE 5	3	2	0	0	5	5	
37	22CM2236	Assessement of Direct Taxes (B.Com(H))	PE 6	3	2	0	0	5	5	
38	22CM2237	Taxation (ACCA)	PE 6	3	2	0	0	5	5	
39	22CM2238	International Taxation(CPA)	PE 6	3	2	0	0	5	5	
40	22CM3145	Principles of Auditing (B.com(H))	PE 7	4	0	0	0	4	4	
41	22ACCAF8	Audit and Assurance (ACCA)	PE 7	4	0	0	0	4	4	
42	22CM3146	International Auditing (CPA)	PE 7	4	0	0	0	4	4	
43	22ACCAP1	Strategic Business Leader (ACCA)	PE 8	3	2	0	0	5	5	
44	**22ACCAP2**	Strategic Business Reporting (ACCA)	PE 8	3	2	0	0	5	5	
45	**22ACCAP4**	Advanced Financial Management(ACCA)	PE 8	3	2	0	0	5	5	
46	22ACCAP7	Advanced Audit & Assurance (ACCA)	PE 8	3	2	0	0	5	5	
47	22PT3231	Industrial Training (B.Com(H) &CPA)	PE 8	0	0	36	0	18	36	

Name of Program: B.Pharmacy

Sno	Course Code	Course Title	Category	L	T	P	S	Cr	CH	Pre-requisite
1	22PY1105T	Communication skills (Theory)	HSS	2	0	0	0	2	2	Nil
2	22PY1105P	Communication skills (Practical)	HSS	0	0	2	0	1	2	Nil
3	22UC1101	Integrated Professional English	HSS	0	0	4	0	2	4	Nil
4	22UC1202	English Proficiency	HSS	0	0	4	0	2	4	Nil
5	22UC1203	Design Thinking and Innovation	HSS	1	0	0	4	2	4	Nil
6	22UC0010	Universal Human Values and Professional Ethics	HSS	2	0	0	0	0	2	Nil

7	212PY1106 RBT/RMT	Remedial Biology/Remedial Mathematics (Theory)	BS	2	0	0	0	2	2	Nil
8	22PY1106R BP	Remedial Biology (Practical)	BS	0	0	2	0	1	2	Nil
9	22PY1211T	Computer Applications in Pharmacy (Theory)	BS	3	0	0	0	3	3	Nil
10	22PY1211P	Computer Applications in Pharmacy (Practical)	BS	0	0	2	0	1	2	Nil
11	22PY1212T	Environmental sciences (Theory)	BS	3	0	0	0	3	3	Nil
12	22PY1101T	Human Anatomy and Physiology I (Theory)	PC	3	1	0	0	4	4	Nil
13	22PY1101P	Human Anatomy and Physiology I (Practical)	PC	0	0	4	0	2	4	Nil
14	22PY1102T	Pharmaceutical Analysis I (Theory)	PC	3	1	0	0	4	4	Nil
15	22PY1102P	Pharmaceutical Analysis I (Practical)	PC	0	0	4	0	2	4	Nil
16	22PY1103T	Pharmaceutics (Theory)	PC	3	1	0	0	4	4	Nil
17	22PY1103P	Pharmaceutics (Practical)	PC	0	0	4	0	2	4	Nil
18	22PY1104T	Pharmaceutical Inorganic Chemistry (Theory)	PC	3	1	0	0	4	4	Nil
19	22PY1104P	Pharmaceutical Inorganic Chemistry (Practical)	PC	0	0	4	0	2	4	Nil
20	22PY1207T	Human Anatomy and Physiology II (Theory)	PC	3	1	0	0	4	4	Nil
21	22PY1207P	Human Anatomy and Physiology II (Practical)	PC	0	0	4	0	2	4	Nil
22	22PY1208T	Pharmaceutical Organic Chemistry I (Theory)	PC	3	1	0	0	4	4	Nil
23	22PY1208P	Pharmaceutical Organic Chemistry I (Practical)	PC	0	0	4	0	2	4	Nil
24	22PY1209T	Biochemistry (Theory)	PC	3	1	0	0	4	4	Nil
25	22PY1209P	Biochemistry (Practical)	PC	0	0	4	0	2	4	Nil
26	22PY1210T	Pathophysiology (Theory)	PC	3	1	0	0	4	4	Nil
27	22PY2113T	Pharmaceutical Organic Chemistry II (Theory)	PC	3	1	0	0	4	4	Nil
28	22PY2113P	Pharmaceutical Organic Chemistry II (Practical)	PC	0	0	4	0	2	4	Nil
29	22PY2114T	Physical Pharmaceutics I (Theory)	PC	3	1	0	0	4	4	Nil
30	22PY2114P	Physical Pharmaceutics I	PC	0	0	4	0	2	4	Nil

		(Practical)								
31	22PY2115T	Pharmaceutical Microbiology (Theory)	PC	3	1	0	0	4	4	Nil
32	22PY2115P	Pharmaceutical Microbiology (Practical)	PC	0	0	4	0	2	4	Nil
33	22PY2116T	Pharmaceutical Engineering (Theory)	PC	3	1	0	0	4	4	Nil
34	22PY2116P	Pharmaceutical Engineering (Practical)	PC	0	0	4	0	2	4	Nil
35	22PY2217T	Pharmaceutical Organic Chemistry III (Theory)	PC	3	1	0	0	4	4	Nil
36	22PY2218T	Medicinal Chemistry I (Theory)	PC	3	1	0	0	4	4	Nil
37	22PY2218P	Medicinal Chemistry I (Practical)	PC	0	0	4	0	2	4	Nil
38	22PY2219T	Physical Pharmaceutics II (Theory)	PC	3	1	0	0	4	4	Nil
39	22PY2219P	Physical Pharmaceutics II (Practical)	PC	0	0	4	0	2	4	Nil
40	22PY2220T	Pharmacology I (Theory)	PC	3	1	0	0	4	4	Nil
41	22PY2220P	Pharmacology I (Practical)	PC	0	0	4	0	2	4	Nil
42	22PY2221T	Pharmacognosy and Phytochemistry I (Theory)	PC	3	1	0	0	4	4	Nil
43	22PY2221P	Pharmacognosy and Phytochemistry I (Practical)	PC	0	0	4	0	2	4	Nil
44	22PY3122T	Medicinal Chemistry II (Theory)	PC	3	1	0	0	4	4	Nil
45	22PY3123T	Industrial Pharmacy I (Theory)	PC	3	1	0	0	4	4	Nil
46	22PY3123P	Industrial Pharmacy I (Practical)	PC	0	0	4	0	2	4	Nil
47	22PY3124T	Pharmacology II (Theory)	PC	3	1	0	0	4	4	Nil
48	22PY3124P	Pharmacology II (Practical)	PC	0	0	4	0	2	4	Nil
49	22PY3125T	Pharmacognosy and Phytochemistry II (Theory)	PC	3	1	0	0	4	4	Nil
50	22PY3125P	Pharmacognosy and Phytochemistry II (Practical)	PC	0	0	4	0	2	4	Nil
51	22PY3126T	Pharmaceutical Jurisprudence (Theory)	PC	3	1	0	0	4	4	Nil
52	22PY3227T	Medicinal Chemistry III (Theory)	PC	3	1	0	0	4	4	Nil
53	22PY3227P	Medicinal chemistry III (Practical)	PC	0	0	4	0	2	4	Nil
54	22PY3228T	Pharmacology III (Theory)	PC	3	1	0	0	4	4	Nil

55	22PY3228P	Pharmacology III (Practical)	PC	0	0	4	0	2	4	Nil
56	22PY3229T	Herbal Drug Technology (Theory)	PC	3	1	0	0	4	4	Nil
57	22PY3229P	Herbal Drug Technology (Practical)	PC	0	0	4	0	2	4	Nil
58	22PY3230T	Biopharmaceutics and Pharmacokinetics (Theory)	PC	3	1	0	0	4	4	Nil
59	22PY3231T	Pharmaceutical Biotechnology (Theory)	PC	3	1	0	0	4	4	Nil
60	22PY3232T	Quality Assurance (Theory)	PC	3	1	0	0	4	4	Nil
61	22PY4133T	Instrumental Methods of Analysis (Theory)	PC	3	1	0	0	4	4	Nil
62	22PY4133P	Instrumental Methods of Analysis (Practical)	PC	0	0	4	0	2	4	Nil
63	22PY4134T	Industrial Pharmacy II (Theory)	PC	3	1	0	0	4	4	Nil
64	22PY4135T	Pharmacy Practice (Theory)	PC	3	1	0	0	4	4	Nil
65	22PY4136T	Novel Drug Delivery System (Theory)	PC	3	1	0	0	4	4	Nil
66	22PY4137PS	Practice School	PC	0	0	12	0	6	12	Nil
67	22PY4238T	Biostatistics and Research Methodology (Theory)	PC	3	1	0	0	4	4	Nil
68	22PY4239T	Social and Preventive Pharmacy (Theory)	PC	3	1	0	0	4	4	Nil
69	22PY4240ET	Pharma Marketing Management	**PE**	3	1	0	0	4	4	Nil
70	22PY 4242ET	Pharmacovigilance	**PE**							Nil
71	22PY 4243ET	Quality Control and Standardization of Herbals	**PE**							Nil
72	22PY 4246ET	Cosmetic Science	**PE**							Nil
73	22PY 4248ET	Advanced Instrumentation Techniques	**PE**							Nil
74	22PY 4241ET	Pharmaceutical Regulatory Science	**PE**	3	1	0	0	4	4	Nil
75	22PY 4244ET	Computer Aided Drug Design	**PE**							Nil
76	22PY 4245ET	Cell and Molecular Biology	**PE**							Nil
77	22PY 4247ET	Experimental Pharmacology	**PE**							Nil
78	22PY 4249ET	Dietary Supplements and Nutraceuticals	**PE**							Nil

79	22GN40D2	National Caded Cops (NCC)-I/NSS-I	OE	2	0	2	0	3	4	Nil
80	22GN40D3	National Caded Cops (NCC)-2/NSS-2	OE	2	0	2	0	3	4	Nil
81	22GN40D6	National Caded Copse-III/NSS-III	OE	2	0	2	0	3	4	NIl
82	22PY4250PW	Project Work	PR	0	0	12	0	6	12	Nil
83	22PY3123S	Production process for API/Bulk drug/Intermediates	Skill	0	0	0	4	1	4	
84	22PY4133S	Operation of Analytical Instruments	Skill	0	0	0	4	1	4	
Total Credits								**221**		

Name of the Program: M.Sc Physics

Sl 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	22PH5101	Mathematical Physics	PC	4	0	0	4	4	4	NIL
4	22PH5102	Classical Mechanics	PC	4	0	0	4	4	4	NIL
5	22PH5103	Electrodynamics	PC	4	0	0	4	4	4	NIL
6	22PH5104	Analog Electronics	PC	4	0	0	4	4	4	NIL
7	22PH5105	Computational Physics	PC	4	0	0	4	4	4	NIL
8	22PH5106	Analog Electronics Lab	PC	0	0	6	6	3	6	NIL
9	22PH5107	Computational Physics lab	PC	0	0	4	4	2	4	NIL
10	22PH5201	Statistical Mechanics	PC	4	0	0	4	4	4	NIL
11	22PH5202	Quantum Mechanics – 1	PC	4	0	0	4	4	4	NIL
12	22PH5203	Fiber Optics and Non-linear optics	PC	4	0	0	4	4	4	NIL
13	22PH5204	Solid State Physics-1	PC	4	0	0	4	4	4	NIL
14	22PH5205	Digital Electronics	PC	4	0	0	4	4	4	NIL
15	22PH5206	Solid State Physics-1 Lab	PC	0	0	6	6	3	6	NIL
16	22PH5207	Digital Electronics Lab	PC	0	0	6	6	3	6	NIL
17	22PH5208	Seminar	PC	0	0	2	2	1	2	NIL
18	22PH5301	Quantum Mechanics-2	PC	4	0	0	4	4	4	QM-1
19	22PH5302	Atomic and Molecular Spectroscopy	PC	4	0	0	4	4	4	NIL
20	22PH5303	Nuclear Physics	PC	3	0	0	3	3	3	NIL

21	22PH5304	Particle Physics	PC	2	0	0	2	2	2	NIL
22	22PH5305	Solid State Physics -2	PC	4	0	0	4	4	4	NIL
23	22PH5306	Lasers and Photonics	PC	4	0	0	4	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	Physics of Nanomaterials	PE	3	0	0	0	3	3	NIL
28	22PH54E4	Radar Systems and Satellite communication	PE	3	0	0	0	3	3	NIL
29	22PH54E5	Thin-film Technology	PE	3	0	0	0	3	3	NIL
30	22PH54E6	Antenna theory and Radio wave Propagation	PE	3	0	0	0	3	3	NIL
31	22PH5401	Dissertation with Research Publication	PR	0	0	16	0	8	16	NIL
32	22PH5307	Term Paper	PR	0	0	4	0	2	4	NIL
Total Credits								**99**		

Name of the Program: M.Sc Chemistry

Sl 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
22	22CY5305	Applications of Chemical Spectroscopy	PE	3	0	0	0	3	3	NIL
23	22CY5306	Bio analytical Chemistry	PE	3	0	0	0	3	3	NIL
24	22CY5307	Environmental Chemistry	PE	3	0	0	0	3	3	NIL
25	22CY5308	Surface Analytical Techniques	PE	3	0	0	0	3	3	NIL
26	22CY5309	Analysis of Food and Drugs	PE	3	0	0	0	3	3	NIL
27	22CY5313	Photo Chemistry and Pericyclic reactions	PE	3	0	0	0	3	3	NIL
28	22CY5314	Organometallic Chemistry	PE	3	0	0	0	3	3	NIL
29	22CY5315	Bio Organic Chemistry	PE	3	0	0	0	3	3	NIL
30	22CY5316	Green & Sustainable Chemistry	PE	3	0	0	0	3	3	NIL
31	22CY5317	Supra molecular Chemistry	PE	3	0	0	0	3	3	NIL
32	22CY5318	Medicinal chemistry	PE	3	0	0	0	3	3	NIL
33	22CY5404	Chromatographic Techniques & Method Validation	PE	3	0	0	0	3	3	NIL
34	22CY5405	Classical Methods of Analysis	PE	3	0	0	0	3	3	NIL
35	22CY5406	Chemo Sensors and body fluid analysis	PE	3	0	0	0	3	3	NIL
36	22CY5410	Drug Design & Development	PE	3	0	0	0	3	3	NIL
37	22CY5411	Chemistry of Drugs and Pharmaceuticals	PE	3	0	0	0	3	3	NIL
38	22CY5412	Nano Chemistry	PE	3	0	0	0	3	3	NIL
39	22CY5403	Dissertation with Research Publication	PR	0	0	12	0	6	12	NIL
40	22CY5409	Dissertation with Research Publication	PR	0	0	12	0	6	12	NIL
Total Credits								**101**		

Name of the Program: M.Sc Applied Mathematics

SNO	COURSE CODE	COURSE NAME	Type	L	T	P	S	CH	CR	Pre requisites
1	**22UC1101**	**Integrated Professional English**	HSS	**0**	**0**	**4**	**0**	4	**2**	NIL
2	**22UC1103**	**Design Thinking and Innovation**	**HSS**	**1**	**0**	**0**	**4**	**5**	**2**	**NIL**
3	22AM1101	Real Analysis	PC	4	0	0	0	4	4	NIL
4	22AM1102	Ordinary Differential Equations	PC	3	0	2	0	3	4	NIL
5	22AM1103	Discrete Mathematics	PC	3	1	0	0	4	4	NIL
6	22AM1104	Introduction to Computer Programming	PC	3	0	2	0	5	4	NIL
7	22AM1105	Mathematical Statistics	PC	3	1	0	0	4	4	NIL

8	22AM1106	Seminar-1	PC	0	0	2	0	1	1	NIL
9	22AM1201	Abstract Algebra	PC	3	0	0	0	3	3	NIL
10	22AM1202	Data Structures	PC	3	0	2	0	5	4	NIL
11	22AM1203	Statistical Inference	PC	3	1	0	0	4	4	NIL
12	22AM1204	Numerical Analysis	PC	3	0	2	0	5	4	NIL
13	22AM1205	Complex Analysis	PC	3	1	0	0	4	4	NIL
14	22AM1206	Technical Skills	Skill	0	0	0	4	4	1	NIL
15	22AM1207	Seminar-2	PC	0	0	2	0	2	1	NIL
16	22AM2101	Topology	PC	3	0	0	0	3	3	NIL
17	22AM2102	Partial Differential Equations	PC	3	1	0	0	4	4	NIL
18	22AM2103	Continuum Mechanics	PC	3	1	0	0	4	4	NIL
19	22AM2104	Statistics with R Programming	PC	3	0	2	0	5	4	NIL
20	22AM2105	Seminar-3	PC	0	0	2	0	2	1	NIL
21	22AM2201	Fluid Dynamics	PC	3	0	2	0	5	4	NIL
22	22AM2202	Transform Techniques	PC	3	0	2	0	5	4	NIL
23	22AM2203	Dissertation with Research Publication	PC	0	0	24	0	24	12	NIL
		Elective-I								
24	22AM2106	Operations Research	PE	3	1	0	0	4	4	NIL
25	22AM2107	Functional Analysis	PE	3	1	0	0	4	4	NIL
26	22AM2108	Fuzzy mathematics and applications	PE	3	1	0	0	4	4	NIL
		Elective-II								
27	22AM2204	Mathematical Modelling	PE	3	1	0	0	4	4	NIL
28	22AM2205	Mathematical Control Theory	PE	3	1	0	0	4	4	NIL
29	22AM2206	Dynamical Systems	PE	3	1	0	0	4	4	NIL
		Elective-III								
30	22AM2207	Advanced Numerical Analysis	PE	3	0	2	0	5	4	NIL
31	22AM2208	Number Theory	PE	3	1	0	0	4	4	NIL
32	22AM2209	Applied Stochastic Processes	PE	3	1	0	0	4	4	NIL
		Total No. of Credits							**94**	

Name of the Program: M.Sc Finance & Control

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	
2	22UC1202	English Proficiency	HSS	0	0	4	0	2	4	
3	22UC0010	Universal Human values and professional Ethics	HSS	2	0	0	0	2	2	
4	22UC2103	Essential Skills for Employability	HSS	0	0	4	0	2	4	

5	22FL1203	Foreign Language (German)	HSS	2	0	0	0	2	2	
6	22CM2123	Business Mathematics & Statistics	BS	3	2	0	0	5	5	
7	22UC0009	Ecology & Environment	BS	2	0	0	0	2	2	
8	22CM1101	Business Technology	PC	3	2	0	0	5	5	
9	22CM1102	Fundamentals of Cost Accounting	PC	3	2	0	0	5	5	
10	22CM1103	Principles of Management	PC	3	0	0	0	3	3	
11	22CM1104	Basics of Excel	PC	2	0	2	0	3	4	
12	22CM1211	Introduction to income tax	PC	3	2	0	0	5	5	
13	22CM1212	Corporate and Business law	PC	4	0	0	0	4	4	
14	22CM1213	Advanced Excel	PC	2	0	2	0	3	4	
15	22CM2121	Introduction to Corporate Accounting	PC	3	2	0	0	5	5	
16	22CM2122	Banking Law and Practice	PC	3	0	0	0	3	3	
17	22CM2231	Advanced Corporate Accounting	PC	3	2	0	0	5	5	
18	22CM2232	Corporate Financial Reportinng	PC	3	0	0	0	3	3	
19	22CM2233	Introduction to Business Analytics	PC	2	0	2	0	3	4	
20	22CM3141	Goods and Service Tax	PC	3	2	0	0	5	5	
21	22CM3142	Business Strategy	PC	3	0	0	0	3	3	
22	22CM3143	Financial Analytics	PC	2	0	2	0	3	4	
23	22CM3144	Security Analysis & Portfolio Management	PC	3	2	0	0	5	5	
24	22CM1105	Principles of Accounting (B.Com(H))	PE 1	3	2	0	0	5	5	
25	22CM1106	Financial Accounting (ACCA)	PE 1	3	2	0	0	5	5	
26	22CM1107	International Financial Accounting & Reporting - I (CPA)	PE 1	3	2	0	0	5	5	
27	22CM1214	Advanced Cost Accounting (B.com(H))	PE 2	3	2	0	0	5	5	
28	22ACCAF7	Financial Reporting (ACCA)	PE 2	3	2	0	0	5	5	
29	22CM1215	International Financial Accounting&Reporting - II (CPA)	PE 2	3	2	0	0	5	5	
30	22CM2124	Business Valuation (B.Com(H) & CPA)	PE 3	3	2	0	0	5	5	
31	22ACCAF9	Financial Management (ACCA)	PE 3	3	2	0	0	5	5	
32	22CM2125	Cost and Management Accounting (B.Com(H))	PE 4	3	2	0	0	5	5	
33	22CM2126	Management Accounting (ACCA)	PE 4	3	2	0	0	5	5	
34	22CM2127	Internationa finance (CPA)	PE 4	3	2	0	0	5	5	
35	22CM2234	Project Management (	PE 5	3	2	0	0	5	5	

		(B.Com(H) & CPA)								
36	22CM2235	Peroformance Management (ACCA)	PE 5	3	2	0	0	5	5	
37	22CM2236	Assessement of Direct Taxes (B.Com(H))	PE 6	3	2	0	0	5	5	
38	22CM2237	Taxation (ACCA)	PE 6	3	2	0	0	5	5	
39	22CM2238	International Taxation(CPA)	PE 6	3	2	0	0	5	5	
40	22CM3145	Principles of Auditing (B.com(H))	PE 7	4	0	0	0	4	4	
41	22ACCAF8	Audit and Assurance (ACCA)	PE 7	4	0	0	0	4	4	
42	22CM3146	International Auditing (CPA)	PE 7	4	0	0	0	4	4	
43	22ACCAP1	Strategic Business Leader (ACCA)	PE 8	3	2	0	0	5	5	
44	**22ACCAP2**	Strategic Business Reporting (ACCA)	PE 8	3	2	0	0	5	5	
45	**22ACCAP4**	Advanced Financial Management(ACCA)	PE 8	3	2	0	0	5	5	
46	22ACCAP7	Advanced Audit & Assurance (ACCA)	PE 8	3	2	0	0	5	5	
47	22PT3231	Industrial Training (B.Com(H) &CPA)	PE 8	0	0	36	0	18	36	

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	PC	4	0	0	0	4	4	Nil
2	22PY5102	Drug Delivery Systems	PC	4	0	0	0	4	4	Nil
3	22PY5103	Modern Pharmaceutics	PC	4	0	0	0	4	4	Nil
4	22PY5104	Regulatory Affairs	PC	4	0	0	0	4	4	Nil
5	22PY5105	Pharmaceutics Practical I	PC	0	0	12	0	6	12	Nil
6	22PY5107	Molecular Pharmaceutics (Nano Tech and Targeted DDS)	PC	4	0	0	0	4	4	Nil
7	22PY5108	Advanced Biopharmaceutics & Pharmacokinetics	PC	4	0	0	0	4	4	Nil
8	22PY5109	Computer Aided Drug Delivery System	PC	4	0	0	0	4	4	Nil
9	22PY5110	Cosmetic and Cosmeceuticals	PC	4	0	0	0	4	4	Nil
10	22PY5111	Pharmaceutics Practical II	PC	0	0	12	0	6	12	Nil
11	22PY5113	Research Methodology and Biostatistics	PC	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**	**159**	

Name of the Program: MA English

Sl No	Course Code	Course Title	Category	L	T	P	S	Cr	CH	Pre-requisite
1	22EN6105	English for Careers	HSS	3	0	2	0	4	4	NIL
3	22EN5101	History of English Language	PC	4	0	0	0	4	4	NIL
4	22EN5102	Early & Middle English Literature	PC	4	0	0	0	4	4	NIL
5	22EN5103	English Poetry-I	PC	4	0	0	0	4	4	NIL
6	22EN5104	English Drama	PC	4	0	0	0	4	4	NIL
7	22EN5105	Introduction to Linguistics	PC	3	0	2	0	4	4	NIL
9	22EN5201	English poetry II	PC	4	0	0	0	4	4	NIL
10	22EN5202	Modern English Novel	PC	4	0	0	0	4	4	NIL
11	22EN5203	Indian writng in English	PC	4	0	0	0	4	4	NIL
12	22EN5204	Approaches, Methods & Techniques in ELT	PC	4	0	0	0	4	4	NIL
13	22EN5205	Academic Writing	PC	3	0	2	0	4	4	NIL
14	22EN6101	Literary Criticism	PC	4	0	0	0	4	4	NIL
15	22EN6102	American Literature	PC	4	0	0	0	4	4	NIL
16	22EN6103	ICT for Langauage learning	PC	4	0	0	0	4	4	NIL
17	22EN6104	Contemporary Poetry and Drama	PC	4	0	0	0	4	4	NIL
18	22EN6101	New Literatures in English	PC	4	0	0	0	4	4	NIL
19	22EN6102	Literature and Gender	PC	4	0	0	0	4	4	NIL
20	22EN6203	English for Specific Purpose	PC	4	0	0	0	4	4	NIL
21	22EN6104	Mythology: New Perspectives	PC	3	0	2	0	4	4	NIL
22	22EN6106	Applied Linguistics	PE	4	0	0	0	4	4	NIL
23	22EN6107	European Classics	PE	4	0	0	0	4	4	NIL
24	22EN6108	Journalism & Mass Communication	PE	3	0	2	0	4	4	NIL
25	22EN6109	Translation: Theory & Practice	PE	3	0	2	0	4	4	NIL

26	22EN6110	Creative Writing	PE	2	0	4	0	4	4	NIL
27	22EN6206	Contemporary Indian literature in Translation	PE	4	0	0	0	4	4	NIL
28	22EN6207	Film Studies: Perspectives	PE	2	0	4	0	4	4	NIL
29	22EN6208	Dalit Literature	PE	4	0	0	0	4	4	NIL
30	22EN6209	Cultural Studies	PE	3	0	2	0	4	4	NIL
32	22EN5106	Writing Skills	PR	0	0	4	0	2	4	NIL
33	22EN5206	Seminar	PR	0	0	4	0	2	4	NIL
34	22EN6205	PG Dissertation (Chosen Area)	PR	0	0	4	0	2	4	NIL
Total Credits								**90**		

Name of the program: MBA

Sl No	Course Code	Course Title	Category	L	T	P	S	Cr	CH	Pre-requisite
1	22UC2109	Logical Thinking skills for Managers	HSS	0	0	4	0	2	4	Nil
2	22UC2107	Professional Skills for Managers	HSS	0	0	4	0	2	4	
3	22UC1203	Design Thinking and Innovation	HSS	0	0	4	0	2	4	
4	22MB51C0	Quantitative Methods	BS	3	0	0	0	3	3	
5	22MB52C2	Business Research Methodology	BS	4	0	0	0	4	4	
6	22MB51C1	Principles of Management & Organizational Behaviour	PC	3	0	0	0	3	3	
7	22MB51C2	Business Economics	PC	3	0	0	0	3	3	
8	22MB51C3	Financial and Management Accounting	PC	2	1	0	0	3	3	
9	22MB51C4	Marketing Management	PC	3	0	0	0	3	3	
10	22MB51C5	Business Environment	PC	3	0	0	0	3	3	
11	22MB51C6	Business Legislation	PC	3	0	0	0	3	3	
12	22MB52C1	Introduction to Business Analytics & R Programming	PC	3	0	2	0	4	5	
13	22MB52C3	Human Resource Management	PC	3	0	0	0	3	3	
14	22MB52C4	Financial Management	PC	2	1	0	0	3	3	
15	22MB52C5	Operations Management	PC	3	0	0	0	3	3	
16	22MB52C6	Information Systems& ERP	PC	3	0	0	0	3	3	
17	22MB61C0	Strategic Management	PC	3	0	0	0	3	3	
18	22MB61C1	Entrepreneurship & Family Business	PC	3	0	0	0	3	3	
19	22MB62C0	Leadership in Organisations	PC	3	0	0	0	3	3	
20	22MB62C1	Business Ethics & Corporate Governance	PC	3	0	0	0	3	3	
21	22MB61XX	FM/HR/MM/BA/SCM	PE	3	0	0	0	3	3	
22	22MB61XX	FM/HR/MM/BA/SCM	PE	3	0	0	0	3	3	

23	22MB61XX	FM/HR/MM/BA/SCM	PE	3	0	0	0	3	3	
24	22MB61XX	FM/HR/MM/BA/SCM	PE	3	0	0	0	3	3	
25	22MB61XX	Sectoral Specialization I	PE	3	0	0	0	3	3	
26	22MB62XX	FM/HR/MM/BA/SCM	PE	3	0	0	0	3	3	
27	22MB62XX	FM/HR/MM/BA/SCM	PE	3	0	0	0	3	3	
28	22MB62XX	FM/HR/MM/BA/SCM	PE	3	0	0	0	3	3	
29	22MB62XX	FM/HR/MM/BA/SCM	PE	3	0	0	0	3	3	
30	22MB62XX	Sectoral Specialization II	PE	3	0	0	0	3	3	
31	22MB50N0	Summer Internship Program	INT	0	0	18	0	9	18	
32	22MB62E8	Management Research Project	PR	0	0	12	0	6	12	
Total Credits								**104**		

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	
2	22CA4100	COMPUTER NETWORKS	PC	3	1	0	0	4	4	
3	22CA4101	COMPUTATIONAL THINKING AND DATA STRUCTURES	PC	3	0	2	4	5	9	
4	22CA4102	RESEARCH EXPLORATION	PC	2	1	0	0	3	3	
5	22CA4103	OPERATING SYSTEMS	PC	3	1	0	0	4	4	
6	22CA4104	DATABASE MANAGEMENT SYSTEM	PC	3	0	2	4	5	9	
7	22CA4205	DATA ANALYTICS	PC	3	0	2	4	5	9	
8	22CA4206	OBJECT ORIENTED PROGRAMMING	PC	3	0	2	4	5	9	
9	22CA4207	SOFTWARE ENGINEERING	PC	2	1	0	0	3	3	
10	22CA4209	IOT TECHNOLOGY AND APPLICATIONS	PC	3	1	0	0	4	4	
11	22CA5110	WEB TECHNOLOGIES	PC	3	0	2	4	5	9	
12	22CA5111	AUTOMATION AND INTELLIGENCE	PC	3	0	0	0	3	3	
13	22CA5112	INTELLECTUAL PROPERTY RIGHTS	PC	3	0	0	0	3	3	
14	22CA5115/ 22CA5123	PE1	PE1	3	0	2	0	4	5	

15	22CA5116/ 22CA5120/ 22CA5124	PE2	PE2	3	0	2	0	4	5	
16	22CA5217/ 22CA5221/ 22CA5225	PE3	PE1	3	0	2	0	4	5	
17	22CA5218/ 22CA5222/ 22CA5226	PE4	PE2	3	0	2	4	5	9	
18	22CA5113	INTERNSHIP/RESEARCH WORK	PR	0	0	4	0	2	4	
19	22CA5214	PROJECT /DISSERTATION WORK	PR	0	0	20	0	10	20	
Total Credits								80	121	

Name of the Program: Pharm D

Sl No	Course Code	Course Title	Category	L	T	P	S	CR	CH	Pre-requisite
1	22PY610B6T/22PY610M6T	Remedial Biology/Remedial Mathematics	BS	3	1	0	0		4	Nil
2	22PY610B6P	Remedial Biology	BS	0	0	3	0		3	Nil
3	22PY6101T	Human Anatomy and Physiology	PC	3	1	0	0		4	Nil
4	22PY6101P	Human Anatomy and Physiology	PC	0	0	3	0		3	Nil
5	22PY6102T	Pharmaceutics	PC	2	1	0	0		3	Nil
6	22PY6102P	Pharmaceutics	PC	0	0	3	0		3	Nil
7	22PY6103T	Medicinal Biochemistry	PC	3	1	0	0		4	Nil
8	22PY6103P	Medicinal Biochemistry	PC	0	0	3	0		3	Nil
9	22PY6104T	Pharmaceutical Organic Chemistry	PC	3	1	0	0		4	Nil
10	22PY6104P	Pharmaceutical Organic chemistry	PC	0	0	3	0		3	Nil
11	22PY6105T	Pharmaceutical Inorganic Chemistry	PC	2	1	0	0		3	Nil
12	22PY6105P	Pharmaceutical Inorganic Chemistry	PC	0	0	3	0		3	Nil
13	22PY6201T	Pathophysiology	PC	3	1	0	0		4	Nil
14	22PY6202T	Pharmaceutical Microbiology	PC	3	1	0	0		4	Nil
15	22PY6202P	Pharmaceutical Microbiology	PC	0	0	3	0		3	Nil
16	22PY6203T	Pharmacognosy&Phytopharmaceuticals	PC	3	1	0	0		4	Nil
17	22PY6203P	Pharmacognosy&Phytopharma	PC	0	0	3	0		3	Nil

		ceuticals								
18	22PY6204T	Pharmacology-I	PC	3	1	0	0		4	Nil
19	22PY6205T	Community Pharmacy	PC	2	1	0	0		3	Nil
20	22PY6206T	Pharmacotherapeutics-I	PC	3	1	0	0		4	Nil
21	22PY6206P	Pharmacotherapeutics-I	PC	0	0	3	0		3	Nil
22	22PY6301T	Pharmacology-II	PC	3	1	0	0		4	Nil
23	22PY6301P	Pharmacology-II	PC	0	0	3	0		3	Nil
24	22PY6302T	Pharmaceutical Analysis	PC	3	1	0	0		4	Nil
25	22PY6302P	Pharmaceutical Analysis	PC	0	0	3	0		3	Nil
26	22PY6303T	Pharmacotherapeutics-II	PC	3	1	0	0		4	Nil
27	22PY6303P	Pharmacotherapeutics-II	PC	0	0	3	0		3	Nil
28	22PY6304T	Pharmaceutical Jurisprudence	PC	2	0	0	0		2	Nil
29	22PY6305T	Medicinal Chemistry	PC	3	1	0	0		4	Nil
30	22PY6305P	Medicinal Chemistry	PC	0	0	3	0		3	Nil
31	22PY6306T	Pharmaceutical Formulations	PC	2	1	0	0		3	Nil
32	22PY6306P	Pharmaceutical Formulations	PC	0	0	3	0		3	Nil
33	22PY6401T	Pharmacotherapeutics-III	PC	3	1	0	0		4	Nil
34	22PY6401P	Pharmacotherapeutics-III	PC	0	0	3	0		3	Nil
35	22PY6402T	Hospital Pharmacy	PC	2	1	0	0		3	Nil
36	22PY6402P	Hospital Pharmacy	PC	0	0	3	0		3	Nil
37	22PY6403T	Clinical Pharmacy	PC	3	1	0	0		4	Nil
38	22PY6403P	Clinical Pharmacy	PC	0	0	3	0		3	Nil
39	22PY6404T	Biostatistics & Research Methodology	PC	2	1	0	0		3	Nil
40	22PY6405T	Biopharmaceutics & Pharmacokinetics	PC	3	1	0	0		4	Nil
41	22PY6405P	Biopharmaceutics & Pharmacokinetics	PC	0	0	3	0		3	Nil
42	22PY6406T	Clinical Toxicology	PC	2	1	0	0		3	Nil
43	22PY6501T	Clinical Research	PC	3	1	0	0		4	Nil
44	22PY6502T	Pharmacoepidemiology and Pharmacoeconomics	PC	3	1	0	0		4	Nil
45	22PY6503T	Clinical Pharmacokinetics & Pharmacotherapeutic Drug Monitoring	PC	2	1	0	0		3	Nil
46	22PY650N4	Clerkship	PC	0	1	0	0		1	Nil
47	22PY660N1	Internship	PC	0	0	40	0		40	Nil
48	22PH4250PW	Project Work	PR	0	0	20	0		20	Nil