

S. No.	Subject / Specialization	About the Subject	SDG Mapped	Semester	College / School / Department
1	Strategies for visual communication systems	Group project, towards community market to promote sustainable living	10,11,12	7 (2020)	Department of Communication Design, Chitkara Design School
2	Content, Context and Interaction	students chose their own theme based in SDGs related to digital ecosystem	5, 13,14,15,16	7 (2020)	Department of Communication Design, Chitkara Design School
3	Digital Interfaces and Process	Students work on new Technology such as AR / VR	9,17	6 (2019)	Department of Communication Design, Chitkara Design School
4	Design Concepts & Concerns	Studying the eco system of near by villages	3,4,6	3 (2021)	Department of Communication Design, Chitkara Design School
5	Project -1 Social Communication	Developing participatory understanding of team work, problem solving.	5,10	3 (2021)	Department of Communication Design, Chitkara Design School
6	Disaster management	Students learn about the protective measures in relation to disaster management and the visual communication methods to disseminate the information related to same	12,13,14,15	3 (2022)	Department of Communication Design, Chitkara Design School
7	Indoor Environment Control	This subject incorporates understanding the importance of human comfort in built form and environment and at the same time to understand the impact of climate on human comfort, the passive design measures, techniques and technologies for green interior design along its applications of green interiors in residences; hospitality spaces; commercial spaces; offices and public spaces.	4,7,11	3rd, 4th sem (B.Des)	Department Of Interior Design
8	Sustainable Interiors	This subject highlights on understanding the complexities of the design of sustainable buildings along with how to select materials to decrease environmental impacts at the local level	4,7,11	3rd sem (B.Des)	Department Of Interior Design
9	Cost Effective Interiors	The course objective is to introduce the study of cost effectiveness in building construction, to familiarize the students with study of cost effective building components and materials and to do critical analysis of concepts learnt through case examples.	4,7,11	4th sem (B.Des)	Department Of Interior Design
10	Environmental Studies	The aim and objective of this course is to develop awareness amongst students regarding the nature of environmental resources as well as the role and importance of these in improving the quality of human habitat, to acquaint students with various factors causing environmental deterioration and degradation and the available preventive and remedial to safeguard the environmental resources.	4,7,11	5th sem (B.Des)	Department Of Interior Design
11	Ecology and Landscape Elements	This course highlights on the study of the concepts of interior landscaping and their application in the design of interior spaces, to develop an understanding about the design of interior landscape with special emphasis on the choice and care of plant materials used in the interior spaces.	4,7,11	6th sem (B.Des)	Department Of Interior Design
12	Introduction to Building Energy Efficiency	This course highlights on understanding the concept and benefits of energy efficiency in buildings, the methodology used to determine the energy efficiency of buildings, the opportunities and measures for reducing energy use in buildings without sacrificing comfort levels.	4,7,11	1st sem (M.Des)	Department Of Interior Design
13	Interior Landscaping	This course covers the study of the concepts of interior landscaping and their application in the design of interior spaces along with developing an understanding about the design of interior landscape with special emphasis on the choice and care of plant materials used in the interior spaces.	4,7,11	3rd sem (M.Des)	Department Of Interior Design
14	Sustainable Design	This subject aim to understand and analyze the effects of consumerism on the environment, to apply sustainable practices in everyday life and evaluate contemporary products and solutions to environmental design issues in the built environment.	4,7,11	3rd sem (M.Des)	Department Of Interior Design
15	Electrical and Electronics Lab	Explore electrical components, motor control, and sensors in-depth. Investigate voltage regulation using zener diodes and assess the performance of rectifiers and transistors.	4,9	1st	B.E. - Mechanical Engineering
16	Calculus and Matrices	Explore matrices, eigenvalues, and optimization techniques for functions of multiple variables, including applications of double and triple integrals. Study partial differentiation, Taylor's and Maclaurin's expansions, and matrix differentiation.	4,9	1st	B.E. - Mechanical Engineering
17	Design Thinking	Development of the technical skills in design and CAD using concept sketches, 2D and 3D technical drawing and modeling.	3, 4, 6,7,8,9, 11,12,13,14,15	1st	B.E. - Mechanical Engineering
18	Engineering Physics	Calculations of Resultant forces and moments of different kinds of force systems, Analysis of trusses and calculations of centroid and center of gravity of plane laminae	4,9	1st	B.E. - Mechanical Engineering
19	Engineering Physics Lab	Study FeC13 susceptibility, ionization potential of mercury, wavelength of light (Michelson Interferometer), laser beam angular divergence, optical fiber numerical aperture, magnetic field in circular coil, Hall effect in semiconductor, Plank's constant (LEDs).	4,9	1st	B.E. - Mechanical Engineering
20	Environmental Sciences	Environmental studies encompass sustainability, ecosystems, biodiversity, pollution, and human-environment interactions.	4, 6, 7, 11, 14, 15	1st	B.E. - Mechanical Engineering
21	Programming for Engineering Problem Solving	The students get hands on experience of solving problems through C-programming. The students are able to determine and demonstrate bugs in a program and recognize needed basic operations. Students develop the skill to formulate new solutions for programming problems or improve existing code to program effectively	4,9	1st	B.E. - Mechanical Engineering
22	Engineering Materials and Metallurgy	Detailed study of engineering materials with classification and properties. Various testing methods. Phase diagram of various alloy systems. Heat treatment processes and their applications.	4,9	1st	B.E. - Mechanical Engineering
23	Engineering Materials and Metallurgy Lab	Hands on Experience on various materials testing equipment such as Microscope, hardness testing machine, and end quench test etc.	4,9	1st	B.E. - Mechanical Engineering
24	Mathematical Models in Engineering	Study Fourier series expansions, transforms, and applications in solving ordinary and partial differential equations. Explore complex variables, integration, and apply Laplace transforms for differential equation solutions.	4,9	2nd	B.E. - Mechanical Engineering
25	Technical Communication	Forms of Technical Communication, Technical presentation, Kinetics & Voice Dynamics.	4,8	2nd	B.E. - Mechanical Engineering
26	Engineering Exploration	Design and fabrication of the projects, interdisciplinary projects for solving community problems, Team formation methods for project work.	3, 4, 6, 7,8,9, 11,12,13,14,15	2nd	B.E. - Mechanical Engineering
27	Human Values & Professional Ethics	Promote human rights and value education, emphasizing gender equality, character development, and addressing issues like gender discrimination, female feticide, and child labor.	3, 4, 5, 10	2nd	B.E. - Mechanical Engineering
28	Thermodynamics	Detailed concepts of laws of thermodynamics, gas power cycle and mechanisms	4,9	2nd	B.E. - Mechanical Engineering
29	Object Oriented Programming	Design and implement C++ programs for complex problems, making good use of the features of the language such as classes, inheritance and templates	4,9	2nd	B.E. - Mechanical Engineering
30	Rigid Body Dynamics	Study of the kinematics and dynamics of particles and rigid bodies in 2D and 3D motion, Rotations, translations, and oscillations	4,9	2nd	B.E. - Mechanical Engineering
31	Foundation Workshop	Hands on experience to various shops such as welding, sheet metal, carpentry, as well as machine shops for various operations on workpiece	4,9	2nd	B.E. - Mechanical Engineering
32	APPLIED THERMODYNAMICS-I	Students learned different air standard cycle on which different power plant works.	4,9	3rd	B.E. - Mechanical Engineering
33	MANUFACTURING SCIENCE	Detailed concept of various manufacturing processes such as casting, welding, machining along with mechanical working process, their applications & use in the industries.	4,9	3rd	B.E. - Mechanical Engineering
34	MANUFACTURING SCIENCE LAB	Hands on experience of various welding processes, machining processes and casting process along with sand testing and mould making.	4,9	3rd	B.E. - Mechanical Engineering
35	THEORY OF MACHINE	Explore links, mechanisms, and force analysis, including cam types and gear systems. Study balancing in rotating and reciprocating masses, covering locomotives and V engines, and understand the principles of governors.	4,9	3rd	B.E. - Mechanical Engineering
36	THEORY OF MACHINE (LAB)	Hand on learning on governor, cam, gears, balance, gyroscopic	4,9	3rd	B.E. - Mechanical Engineering
37	REFRIGERATION AND AIR CONDITIONING	Cooling load estimation, Refrigeration machine functioning and capacity estimation.	4,9	3rd	B.E. - Mechanical Engineering
38	REFRIGERATION AND AIR CONDITIONING LAB	Cooling Load estimations, COP calculations of refrigerating machine	4,9	3rd	B.E. - Mechanical Engineering
39	MACHINE DRAWING	Introduction and practice on manual drawing creation for various mechanical parts and their assembly.	4,9	3rd	B.E. - Mechanical Engineering
40	MATHEMATICS WITH PYTHON	The simulations cover various applications, including projectile and vehicle motion, pendulum dynamics, and system analyses using numerical techniques, highlighting diverse mathematical and engineering principles.	4,9	3rd	B.E. - Mechanical Engineering
41	COMPUTER GRAPHICS	Analysis and use of engineering computer graphics and solid modelling techniques for mechanical engineering applications.	4,9	4th	B.E. - Mechanical Engineering
42	COMPUTER GRAPHICS (LAB)	Design components, systems and/or processes to meet required specification	4,9	4th	B.E. - Mechanical Engineering
43	APPLIED THERMODYNAMICS-II	Detailed concepts of different type of engines and different type of ignition system, how we can control emission.	4,9	4th	B.E. - Mechanical Engineering
44	INTRODUCTION TO DATA SCIENCE	Formulation and use appropriate models of data analysis to solve hidden solutions to business-related challenges.	4, 8, 12, 13	4th	B.E. - Mechanical Engineering
45	APPLIED THERMODYNAMICS-II LAB	Hands on learning and training on IC engines and thermal equipment to study and analyse various thermodynamic principles	4,9	4th	B.E. - Mechanical Engineering
46	STRENGTH OF MATERIALS	Calculation of shear force, bending moments, bending stresses and shear stresses in different types of beams. calculation of torsion moments in different types of shaft	4,9	4th	B.E. - Mechanical Engineering
47	STRENGTH OF MATERIALS LAB	Hand on experience on strength testing, impact testing, torsion testing machine	4,9	4th	B.E. - Mechanical Engineering
48	AUTOMOBILE ENGINEERING	Course delivers the student a detailed concept about the working of automotive components such as transmission, suspension, braking and handling.	4,9	4th	B.E. - Mechanical Engineering
49	AUTOMOBILE ENGINEERING (LAB)	Students perform experiments related to steering geometry and its calibration, troubleshooting in braking and transmission and engine cooling system	4,9	4th	B.E. - Mechanical Engineering
50	COMPUTER AIDED ENGINEERING	Designing of the different components and extraction of volume using ANSYS software package.	4,9	4th	B.E. - Mechanical Engineering
51	FLUID MECHANICS	Study of behaviour of various fluids in statics, dynamics and kinematics conditions.	4,9	4th	B.E. - Mechanical Engineering
52	FLUID MECHANICS LAB	Hand on experience of various experiments those determine the behaviour of fluid in static, kinematic and dynamic conditions.	4,9	4th	B.E. - Mechanical Engineering
53	COMPUTER GRAPHICS	Analysis and use of engineering computer graphics and solid modelling techniques for mechanical engineering applications.	4,9	5th	B.E. - Mechanical Engineering
54	COMPUTER GRAPHICS (LAB)	Design components, systems and/or processes to meet required specification	4,9	5th	B.E. - Mechanical Engineering
55	PROJECT - 2 (ANALYTICAL /CONCEPTUAL DESIGN)	prototype development, fabrication of setups, laboratory experiment development, process modification/development	3,4, 6,7,8,9, 11,12,13,14,15	5th	B.E. - Mechanical Engineering
56	CNC MACHINING & PROGRAMMING	Constructional details of CNC machines, Fundamentals of Part Programming, Part programming using sub routines, Do loops and canned cycles	4,9	5th	B.E. - Mechanical Engineering
57	CNC MACHINING & PROGRAMMING (LAB)	Study of various types of G - Codes and M - Codes used in CNC machine. Practice of writing the Part programming	4,9	5th	B.E. - Mechanical Engineering
58	AUTOMOBILE ENGINEERING	Course delivers the student a detailed concept about the working of automotive components such as transmission, suspension, braking and handling.	4,9	5th	B.E. - Mechanical Engineering
59	AUTOMOBILE ENGINEERING (LAB)	Students perform experiments related to steering geometry and its calibration, troubleshooting in braking and transmission and engine cooling system	4,9	5th	B.E. - Mechanical Engineering
60	FLUID MACHINERY	Detailed concept of various types of turbines and pumps, analysis of the performance aspects of fluid machinery for turbines and pump	4,9	5th	B.E. - Mechanical Engineering
61	FLUID MACHINERY (LAB)	Hands-on experience in operation of turbines and pumps and their calibration in Laboratory	4,9	5th	B.E. - Mechanical Engineering
62	HEAT TRANSFER	Detailed concept of heat transfer and design different type of fins for maximum heat transfer with different parameters.	4,9	5th	B.E. - Mechanical Engineering
63	HEAT TRANSFER (LAB)	Students determine the thermal conductivity of different materials and analyse its effects on heat transfer.	4,9	5th	B.E. - Mechanical Engineering
64	SUMMER INTERNSHIP (4 WEEKS)	To cultivate student's leadership ability and responsibility to perform or execute the given task.	3, 4, 6,7,8,9, 11,12,13,14,15	5th	B.E. - Mechanical Engineering
65	MACHINE DESIGN - I	Calculations of design specifications of shafts, keys and couplings. Design of Riveted, welded and Bolted joints.	4,9	5th	B.E. - Mechanical Engineering
66	DUCTING AND PIPING DESIGN	HVAC Fundamentals: Covers HVAC system components, ductwork basics, air terminals, special ducts, diffusion principles, and duct design methods. Piping Essentials: Introduces piping principles, systems, valves, insulation, sizing, and applications for water, steam, and gas systems.	4,9	5th	B.Tech - Mechanical Engineering
67	FLUID MECHANICS	Study of behaviour of various fluids in statics, dynamics and kinematics conditions.	4,9	5th	B.Tech - Mechanical Engineering

68	FLUID MECHANICS LAB	Hand on experience of various experiments those determine the behaviour of fluid in static, kinematic and dynamic conditions.	4,9	5th	B.Tech - Mechanical Engineering
69	HVAC CONTROLS & ENERGY MANAGEMENT	Control systems aim to maintain room conditions, optimize energy use, and ensure safety through loops, sensors, and various controls. The system includes DDC, PLC, sensors like temperature, and aspects like tuning, fault detection, and functional controls.	4,9	5th	B.Tech - Mechanical Engineering
70	HVAC CONTROLS & FABRICATION LAB	Overview of SMPS types and HVAC control devices. Study of VFD, HMI in Psychrometry, and BMS sensor selection.	4,9	5th	B.Tech - Mechanical Engineering
71	MINOR PROJECT	Conceptual design and analytical design	3, 4, 6,7,8,9, 11,12,13,14,15	5th	B.Tech - Mechanical Engineering
72	POWER PLANT ENGINEERING	Comprehensive overview of power plants, including thermal (Rankine cycle, diesel, gas), nuclear, and combined cycle plants. Detailed coverage of plant components, efficiency, and environmental considerations for diverse power generation methods.	4,9	5th	B.Tech - Mechanical Engineering
73	THEORY OF MACHINE	To introduce the approaches and mathematical models used in kinematic and dynamic analysis of machinery, basic knowledge on mechanical vibrations	4,9	5th	B.Tech - Mechanical Engineering
74	THEORY OF MACHINES LAB	Hand on learning on governor, cam, gears, balancing, gyroscopes	4,9	5th	B.Tech - Mechanical Engineering
75	PROJECT-3	Engineering practice for students and application of knowledge from different areas of engineering, which they have studied in their curriculum using methods, tools and techniques.	3, 4, 6,7,8,9, 11,12,13,14,15	6th	B.E. - Mechanical Engineering
76	LIFE SKILLS	Personality development, resume writing, soft skills and mock interviews	4	6th	B.E. - Mechanical Engineering
77	AUTOMOTIVE MANUFACTURING	To understand the construction and working of various sheet metal processes, different types of chassis frames and various assembly and testing techniques of vehicles.	4,9	6th	B.E. - Mechanical Engineering
78	CAD/CAM	Understand the role of CAD in mechanical component design by creating geometric models and engineering drawings.	4,9	6th	B.E. - Mechanical Engineering
79	CAD/CAM LAB	Creation and validation of NC part program using standard commercial CAM package for manufacturing of required component using CNC milling or turning applications.	4,9	6th	B.E. - Mechanical Engineering
80	INDUSTRIAL ENGINEERING	Explore Industrial Engineering, encompassing management concepts, organizational design, productivity methods, work analysis, motion economy, work measurement, and value engineering.	4,9	6th	B.E. - Mechanical Engineering
81	MACHINE DESIGN-II	The course introduces various elements of machine design and understanding of their application. Study the effect of various forces acting on belts, rope, chains, springs, bearings and gears.	4,9	6th	B.E. - Mechanical Engineering
82	ROBOTICS AND HUMANOIDS	AI Problem Solving and Searching, Independently analyze and communicate analysis of new robotics research and technologies	4,9	6th	B.E. - Mechanical Engineering
83	ROBOTICS AND HUMANOIDS LAB	Robot Programming with Computer Simulation Software, Solving Robot Arm Kinematics with Software	4,9	6th	B.E. - Mechanical Engineering
84	PRESS TOOL TECHNOLOGY	Design of blanking, Piercing Dies and Bend Die to produce V, L and U Shaped Bend components	4,9	6th	B.E. - Mechanical Engineering
85	ENGINEERING APTITUDE SKILLS	Covering Vedic Mathematics, basic operations, percentages, time and work, set theory, logical reasoning, number systems, data interpretation, quantitative analysis, coding-decoding, geometry, trigonometry, and various puzzle-solving techniques for comprehensive mathematical aptitude.	4	6th	B.E. - Mechanical Engineering
86	VEHICLE DYNAMICS	Study of vehicle performance as well as related tests and regulations, study of the traction and brake, ride and handling dynamics theory, as well as theory and design of vehicle control system.	4,9	6th	B.E. - Mechanical Engineering
87	VEHICLE DYNAMICS LAB	Analysis of various dynamic behavior of road vehicles under various loading conditions using various tests	4,9	6th	B.E. - Mechanical Engineering
88	IGES AND FIXTURES	Study and design of various Drill jigs and machine fixtures and inspection devices	4,9	6th	B.E. - Mechanical Engineering
89	COMPUTATIONAL FLUID DYNAMICS LAB	Introduction to computational fluid dynamics (CFD) covering finite volume method and Navier-Stokes equations, emphasizing pre-processing (geometry, meshing) and post-processing (results extraction) 3D modeling, laminar and turbulent flow simulations, and heat conduction studies.	4,9	6th	B.Tech - Mechanical Engineering
90	DESIGN EXCELLENCE TOOLS	Geometric dimensions and tolerances, Design failure mode analysis, Production Management System, Product lifecycle, 5-WHY analysis, Root cause analysis, ANSYS software applications.	4,9	6th	B.Tech - Mechanical Engineering
91	DISASTER MANAGEMENT	Explore disaster management covering classification, impacts, risk reduction, and institutional aspects, emphasizing local involvement. Address global trends, pandemics, climate change, and the role of indigenous knowledge in disaster resilience.	13, 14, 15	6th	B.Tech - Mechanical Engineering
92	HUMAN VALUES AND PROFESSIONAL ETHICS	Promote human rights and value education, emphasizing gender equality, character development, and addressing issues like gender discrimination, female feticide, and child labor.	3, 4, 5, 10	6th	B.Tech - Mechanical Engineering
93	INTERNAL COMBUSTION ENGINES	Overview of Internal Combustion Engines: Examines historical development, air standard cycles, and working principles of 2-stroke and 4-stroke engines. Discusses fuel-air cycles, combustion, mixture preparation, emissions, and control methods, emphasizing pollutants and exhaust gas treatment.	4,9	6th	B.Tech - Mechanical Engineering
94	INTERNAL COMBUSTION ENGINES LAB	Study construction and operation of two-stroke/four-stroke petrol and diesel engines, analyze exhaust gases, and determine heat balance and indicated horse power (IHP). Conduct variable and constant speed performance tests, evaluating parameters like BHP, FHP, volumetric efficiency, MEP, SFC, and measuring emissions such as CO, hydrocarbons, and smoke intensity.	4,9	6th	B.Tech - Mechanical Engineering
95	LIFE SKILLS-II	Personality development, resume writing, soft skills and mock interviews	4	6th	B.Tech - Mechanical Engineering
96	NUMERICAL ABILITY & LOGICAL REASONING	Covering Vedic Mathematics, basic operations, percentages, time and work, set theory, logical reasoning, number systems, data interpretation, quantitative analysis, coding-decoding, geometry, trigonometry, and various puzzle-solving techniques for comprehensive mathematical aptitude.	4	6th	B.Tech - Mechanical Engineering
97	MECHANICAL VIBRATION AND CONDITION MONITORING	Spring-mass-damper system, Analysis of influence of the parameters involved in the governing equations of the system.	4,9	7th	B.E. - Mechanical Engineering
98	MECHANICAL VIBRATION AND CONDITION MONITORING LAB	Hand on experience of experiments on Spring-mass-damper system, Analysis of influence of the parameters involved in the governing equations of the system.	4,9	7th	B.E. - Mechanical Engineering
99	PROJECT MANAGEMENT	Project Management Concepts, Project Organization & Project Contracts, Project Planning & Scheduling, Network Models	4,9	7th	B.E. - Mechanical Engineering
100	DISASTER MANAGEMENT	Explore disaster management covering classification, impacts, risk reduction, and institutional aspects, emphasizing local involvement. Address global trends, pandemics, climate change, and the role of indigenous knowledge in disaster resilience.	13, 14, 15	7th	B.E. - Mechanical Engineering
101	HUMAN VALUES AND PROFESSIONAL ETHICS	Promote human rights and value education, emphasizing gender equality, character development, and addressing issues like gender discrimination, female feticide, and child labor.	3, 4, 5, 10	7th	B.E. - Mechanical Engineering
102	NON DESTRUCTIVE TESTING	Testing Methods for the detection of manufacturing defects as well as material characterization	4,9	7th	B.E. - Mechanical Engineering
103	REFRIGERATION AND AIR CONDITIONING	Cooling load estimation, Refrigeration machine functioning and capacity estimation.	4,9	7th	B.E. - Mechanical Engineering
104	REFRIGERATION AND AIR CONDITIONING LAB	Cooling Load estimations, COP calculations of refrigerating machine	4,9	7th	B.E. - Mechanical Engineering
105	CYBER SECURITY	Students gain familiarity with prevalent network and distributed system attacks, defenses against them, and forensics to investigate the aftermath. Thus, the students are developed with ethical hacking skills and will be well-aware of cyber crimes.	4,9	7th	B.E. - Mechanical Engineering
106	CO-OP PROJECT AT INDUSTRY	Project work, Report writing, Awareness and hierarchy of a small company	3, 4, 6,7,8,9, 11,12,13,14,15	7th	B.Tech - Mechanical Engineering
107	INDUSTRIAL TRAINING	Project work, Report writing, Awareness and hierarchy of a small company	3, 4, 6,7,8,9, 11,12,13,14,15	7th	B.Tech - Mechanical Engineering
108	CO-OP PROJECT AT INDUSTRY	Project work, Report writing, Awareness and hierarchy of a small company	9	8th	B.E. - Mechanical Engineering
109	INDUSTRY ORIENTED HAND ON EXPERIENCE	Project work, Report writing, Awareness and hierarchy of a small company	9	8th	B.E. - Mechanical Engineering
110	COMPUTER AIDED DESIGN	System architecture, computer graphics, geometric modeling of curves and surfaces (Hermite, Bezier, B-spline), solid modeling (CSG, B-rep), visual realism, assembly of parts, and CAD standards such as GKS, OpenGL, and data exchange standards like IGES and STEP.	4,9	8th	B.Tech - Mechanical Engineering
111	CYBER SECURITY	Students gain familiarity with prevalent network and distributed system attacks, defenses against them, and forensics to investigate the aftermath. Thus, the students are developed with ethical hacking skills and will be well-aware of cyber crimes.	4,9	8th	B.Tech - Mechanical Engineering
112	DESIGN OF MACHINE ELEMENTS	The course introduces various elements of machine design and understanding of their application. Study the effect of various forces acting on belts, rope, chains, springs, bearings and gears.	4,9	8th	B.Tech - Mechanical Engineering
113	DISASTER MANAGEMENT	Explore disaster management covering classification, impacts, risk reduction, and institutional aspects, emphasizing local involvement. Address global trends, pandemics, climate change, and the role of indigenous knowledge in disaster resilience.	13, 14, 15	8th	B.Tech - Mechanical Engineering
114	HUMAN VALUES AND PROFESSIONAL ETHICS	Promote human rights and value education, emphasizing gender equality, character development, and addressing issues like gender discrimination, female feticide, and child labor.	3, 4, 5, 10	8th	B.Tech - Mechanical Engineering
115	INDIAN CONSTITUTION	Analyzing India's constitutional law, including its historical evolution, fundamental features, rights, duties, directive principles, federal structure, parliamentary system, presidential powers, constitutional amendments, emergency provisions, and the framework of equality, freedom, and Article 21 rights.	4, 5, 10, 16	8th	B.Tech - Mechanical Engineering
116	Calculus and Matrices	Explore matrices, eigenvalues, and optimization techniques for functions of multiple variables, including applications of double and triple integrals. Study partial differentiation, Taylor's and Maclaurin's expansions, and matrix differentiation.	4,9	1st	B.E. - Mechanical Engineering
117	Mechatronics Foundation Lab	Hands on Experience on introduction	4, 9, 17	1st	B.E. - Mechanical Engineering
118	Engineering Physics	Calculations of Resultant forces and moments of different kinds of force systems, Analysis of trusses and calculations of centroid and center of gravity of plane laminas	4, 9	1st	B.E. - Mechanical Engineering
119	Engineering Physics Lab	Study FeC3 susceptibility, ionization potential of mercury, wavelength of light (Michelson Interferometer), laser beam angular divergence, optical fiber numerical aperture, magnetic field in circular coil, Hall effect in semiconductor, Planck's constant (LEDs).	4, 9	1st	B.E. - Mechanical Engineering
120	Environmental Sciences	Environmental studies encompass sustainability, ecosystems, biodiversity, pollution, and human-environment interactions.	4, 6, 7, 11, 14, 15	1st	B.E. - Mechanical Engineering
121	Fundamentals of Mechatronics Systems	This subject covers topics such as sensors, actuators, microcontrollers, and feedback control systems essential for the development of modern automated and robotic systems.	4, 9	1st	B.E. - Mechanical Engineering
122	Design Thinking	Development of the technical skills in design and CAD using concept sketches, 2D and 3D technical drawing and modeling.	3, 4, 6,7,8,9, 11,12,13,14,15	1st	B.E. - Mechanical Engineering
123	Programming for Engineering Problem Solving	The students get hands on experience of solving problems through C-programming. The students are able to determine and demonstrate bugs in a program and recognize needed basic operations. Students develop the skill to formulate new solutions for programming problems or improve existing code to program effectively.	4,9	1st	B.E. - Mechanical Engineering
124	Electrical and Electronics Lab	Explore electrical components, motor control, and sensors in-depth. Investigate voltage regulation using zener diodes and assess the performance of rectifiers and transistors.	4,9	1st	B.E. - Mechanical Engineering
125	Mathematical Models in Engineering	Study Fourier series expansions, transforms, and applications in solving ordinary and partial differential equations. Explore complex variables, integration, and apply Laplace transforms for differential equation solutions.	4,9	2nd	B.E. - Mechanical Engineering
126	Technical Communication	Forms of Technical Communication, Technical presentation, Kinetics & Voice Dynamics.	4, 8	2nd	B.E. - Mechanical Engineering
127	Rigid Body Dynamics	This subject delves into the mathematical principles governing the motion of rigid bodies, essential for understanding mechanical systems such as machinery, vehicles, and robotic manipulators.	4, 9	2nd	B.E. - Mechanical Engineering
128	Foundation Workshop	Hands on experience to various shops such as welding, sheet metal, carpentry, as well as machine shops for various operations on workpiece	4,9	2nd	B.E. - Mechanical Engineering
129	Human Values & Professional Ethics	Promote human rights and value education, emphasizing gender equality, character development, and addressing issues like gender discrimination, female feticide, and child labor.	3, 4, 5, 10	2nd	B.E. - Mechanical Engineering
130	Object Oriented Programming	Design and implement C++ programs for complex problems, making good use of the features of the language such as classes, inheritance and templates	4,9	2nd	B.E. - Mechanical Engineering
131	Engineering Exploration	Design and fabrication of the projects, interdisciplinary projects for solving community problems, Team formation methods for project work.	3, 4, 6,7,8,9,11,12,13,14,15	2nd	B.E. - Mechanical Engineering

132	Materials and Metallurgy	Detailed study of engineering materials with classification and properties. Various testing methods. Phase diagram of various alloy systems. Heat treatment processes and their applications.	4,9	2nd	B.E. - Mechatronics Engineering
133	Materials and Metallurgy Lab	Hands on Experience on various materials testing equipment such as Microscope, hardness testing machine, and end quench test etc.	4,9	2nd	B.E. - Mechatronics Engineering
134	FUNDAMENTAL OF ELECTRONICS ENGINEERING	This subject covers topics such as semiconductor devices, circuit analysis, digital logic, and amplifier circuits, providing a foundational understanding for designing and troubleshooting electronic circuits.	4,9	3rd	B.E. - Mechatronics Engineering
135	MANUFACTURING SCIENCE	Detailed concept of various manufacturing processes such as casting, welding, machining along with mechanical working process, their applications & use in the industries.	4,9	3rd	B.E. - Mechatronics Engineering
136	CONTROL SYSTEMS AND MEASUREMENTS	This subject covers methodologies for designing, analyzing, and implementing control systems, as well as techniques for accurately measuring and monitoring various parameters within these systems.	4,9	3rd	B.E. - Mechatronics Engineering
137	MECHATRONICS ENGINEERING LAB II	Hands on learning on electronic components gates, transistor, resistors, sensors with arduino interface	4,9	3rd	B.E. - Mechatronics Engineering
138	CYBER SECURITY	Students gain familiarity with prevalent network and distributed system attacks, defenses against them, and forensics to investigate the aftermath. Thus, the students are developed with ethical hacking skills and will be well-aware of cyber crimes.	4,9	3rd	B.E. - Mechatronics Engineering
139	MECHANICAL ENGINEERING LAB I	Hand on experience on strength testing, impact testing, torsion testing machine and various experiments determining behaviour of fluid in static, kinematic and dynamic conditions.	4,9	3rd	B.E. - Mechatronics Engineering
140	MECHANICS OF SOLIDS AND FLUIDS	Calculation of shear force, bending moments, bending stresses and shear stresses in different types of beams. calculation of torsion moments in different types of shaft and study of behaviour of various fluids in statics, dynamics and kinematics conditions.	4,7,9	3rd	B.E. - Mechatronics Engineering
141	INDUSTRIAL AUTOMATION AND ROBOTICS	This subject covers pneumatics, hydraulics and robotic systems, as well as their role in enhancing productivity, efficiency, and safety in industrial environments.	4,9	4th	B.E. - Mechatronics Engineering
142	MATHEMATICS WITH PYTHON	The simulations cover various applications, including projectile and vehicle motion, pendulum dynamics, and system analyses using numerical techniques, highlighting diverse mathematical and engineering principles.	4,9	4th	B.E. - Mechatronics Engineering
143	MECHATRONICS ENGINEERING LAB V	Hands on Experience of understand the kinematic diagrams of different configurations of robots using python programming	4,9	4th	B.E. - Mechatronics Engineering
144	MECHANICAL ENGINEERING LAB II	Hands on learning and training on IC engines and thermal equipment to study and analyse various thermodynamic principles and hand on learning on mechanisms, governor, cam, gears, balancing, cvroscope	4,9	4th	B.E. - Mechatronics Engineering
145	MECHANISMS AND MACHINES	To introduce the approaches and mathematical models used in kinematic and dynamic analysis of machinery, basic knowledge on mechanical vibrations	4,9	4th	B.E. - Mechatronics Engineering
146	PROJECT I	Conceptual design and analytical design	3, 4, 6,7,8,9, 11,12,13,14,15	4th	B.E. - Mechatronics Engineering
147	ENVIRONMENTAL SCIENCES	Environmental studies encompass sustainability, ecosystems, biodiversity, pollution, and human-environment interactions.	4, 6, 7, 11, 14, 15	4th	B.E. - Mechatronics Engineering
148	ENGINEERING STANDARDS AND REGULATIONS	This subject covers the interpretation and application of standards set by regulatory bodies, emphasizing the importance of adhering to ethical and legal principles in engineering design and operations.	4,8,9,16	4th	B.E. - Mechatronics Engineering
149	THERMAL ENGINEERING I	Students learned different air standard cycle on which different power plant works.	4,9	4th	B.E. - Mechatronics Engineering
150	SUMMER INTERNSHIP	To cultivate student's leadership ability and responsibility to perform or execute the given task.	3, 4, 6,7,8,9, 11, 12,13,14, 15	4th	B.E. - Mechatronics Engineering
151	MECHANISMS OF HUMAN MOVEMENTS	This subject explores the biomechanical principles underlying human motion, including the analysis of forces, torques, and kinematics involved in various activities.	4,9,15	5th	B.E. - Mechatronics Engineering
152	MECHANICAL ENGINEERING LAB III	This subject involves conducting experiments to understand fluid power concepts, such as pressure, flow, and force transmission, essential for designing and troubleshooting pneumatic and hydraulic systems.	4,9	5th	B.E. - Mechatronics Engineering
153	THERMAL ENGINEERING II	Detailed concepts of different type of engines and different type of ignition system, how we can control emission.	4,9	5th	B.E. - Mechatronics Engineering
154	MECHATRONICS ENGINEERING LAB IV	Hand on experience on google colab building Neural networks for different classification problems using tensorflow and keras for machine learning	4,9	5th	B.E. - Mechatronics Engineering
155	DISASTER MANAGEMENT	Explore disaster management covering classification, impacts, risk reduction, and institutional aspects, emphasizing local involvement. Address global trends, pandemics, climate change, and the role of indigenous knowledge in disaster resilience.	13, 14, 15	5th	B.E. - Mechatronics Engineering
156	MINOR PROJECT II	Conceptual design and analytical design	3, 4, 6,7,8,9, 11,12,13,14,15	5th	B.E. - Mechatronics Engineering
157	ENGINEERING STANDARDS AND REGULATIONS	This subject covers the interpretation and application of standards set by regulatory bodies, emphasizing the importance of adhering to ethical and legal principles in engineering design and operations.	4,8,9,16	5th	B.E. - Mechatronics Engineering
158	MACHINE LEARNING	This subject encompasses techniques such as supervised learning, unsupervised learning, and reinforcement learning, with applications ranging from image recognition and natural language processing to recommendation systems and autonomous vehicles.	4,9	5th	B.E. - Mechatronics Engineering
159	INDUSTRIAL ENGINEERING	Explore Industrial Engineering, encompassing management concepts, organizational design, productivity methods, work analysis, motion economy, work measurement, and value engineering.	4,9	6th	B.E. - Mechatronics Engineering
160	MECHATRONICS ENGINEERING LAB VI	Hand on experience to interface the wireless modules with microcontroller to control the brushless motor, transfer the data between master and slave configuration using I2C.	4,9	6th	B.E. - Mechatronics Engineering
161	MECHATRONICS SYSTEM PROJECT (CONT.)	Prototype development, fabrication of setups, laboratory experiment development, process modification/development	3, 4, 6,7,8,9, 11,12,13,14,15	6th	B.E. - Mechatronics Engineering
162	MOBILE ROBOTICS	This subject covers topics such as locomotion mechanisms, sensor integration, navigation algorithms, and task planning, essential for creating robots that can operate efficiently in dynamic and unstructured surroundings.	4,9	6th	B.E. - Mechatronics Engineering
163	HUMAN VALUES AND PROFESSIONAL ETHICS	Promote human rights and value education, emphasizing gender equality, character development, and addressing issues like gender discrimination, female feticide, and child labor.	3, 4, 5, 10	6th	B.E. - Mechatronics Engineering
164	HEATING VENTILATION AND AIR CONDITIONING	Control systems aim to maintain room conditions, optimize energy use, and ensure safety through loops, sensors, and various controls. The system includes DDC, PLC, sensors like temperature, and aspects like tuning, fault detection, and functional controls.	4,9	6th	B.E. - Mechatronics Engineering
165	MECHANICAL ENGINEERING LAB IV	Students determine the thermal conductivity of different materials and analyse its effects on heat transfer and cooling Load estimations, COP calculations of refrigeration systems.	4,9	6th	B.E. - Mechatronics Engineering
166	NUMERICAL ABILITY AND LOGICAL REASONING	Covering Mathematics, basic operations, percentages, time and work, set theory, logical reasoning, number systems, data interpretation, quantitative analysis, coding-decoding, geometry, trigonometry, and various puzzle-solving techniques for comprehensive mathematical aptitude.	4	6th	B.E. - Mechatronics Engineering
167	WEB DEVELOPMENT FOR IOT	This subject covers the integration of web technologies such as HTML, CSS, JavaScript, and server-side scripting languages with IoT platforms and protocols to enable remote monitoring, management, and automation of connected devices.	4,7,9	7th	B.E. - Mechatronics Engineering
168	INDUSTRY 4.0	This subject encompasses concepts such as the Internet of Things (IoT), artificial intelligence (AI), big data analytics, and cyber-physical systems, aimed at enhancing efficiency, productivity, and flexibility in industrial operations.	4,7,9	7th	B.E. - Mechatronics Engineering
169	CNC MACHINING & PROGRAMMING	Constructional details of CNC machines, Fundamentals of Part Programming, Part programming using sub routines, Do loops and canned cycles	4,9	7th	B.E. - Mechatronics Engineering
170	FROM WIRE TO PLC	This subject covers topics such as electrical circuits, relay logic, PLC hardware and software, and ladder logic programming, providing essential knowledge for automating industrial processes effectively.	4,9	7th	B.E. - Mechatronics Engineering
171	MAJOR PROJECT	Engineering practice for students and application of knowledge from different areas of engineering, which they have studied in their curriculum using methods, tools and techniques.	3, 4, 6,7,8,9, 11,12,13,14,15	7th	B.E. - Mechatronics Engineering
172	WORK STUDY & ERGONOMICS	Explore Industrial Engineering, encompassing management concepts, organizational design, productivity methods, work analysis, motion economy, work measurement, and value engineering.	4,9	7th	B.E. - Mechatronics Engineering
173	6 MONTH INDUSTRIAL TRAINING	Project work, Report writing, Awareness and hierarchy of a small company	3, 4, 6,7,8,9, 11,12,13,14,15	8th	B.E. - Mechatronics Engineering
174	CO-OP PROJECT AT INDUSTRY	Project work, Report writing, Awareness and hierarchy of a small company	3, 4, 6,7,8,9, 11,12,13,14,15	8th	B.E. - Mechatronics Engineering
175	Problem Solving and Logic Design	Create a working module of a stated problem and to develop a blueprint for Developing a program in any programming language.	4	1st	CUJET
176	Essentials of Information Technology	Find out the significance of various softwares and Internet in real world as well as role of operating system. Understand organization, functions and usage principles applicable to all types of modern computer systems.	4	1st	CUJET
177	Database Management System	Understand and evaluate the role of database management systems in information. Technology applications within organizations.	4	1st	CUJET
178	Environmental Sciences	Provide students with concepts about natural resources, ecosystems, biodiversity, energy resources, environmental pollution and waste management which are required to understand the interrelationships of the natural world.	4,5,13	1st	CUJET
179	Advance Software Engineering Techniques	Apply the software engineering lifecycle by demonstrating competence in communication, planning, analysis, design, construction, and deployment.	4,9	1st	CUJET
180	Project Management	Production of a complete project which follows the client's exclusive needs and objectives.	4,13	1st	CUJET
181	Introduction to Interactive Programming in Python	Exploring Python popularity as a general purpose programming language. Python Library use for statistic analysis	4	1st	CUJET
182	Statistical Data Analytics using R	Able to appreciate and apply the R programming from a statistical perspective	4	1st	CUJET
183	Operation Research	Ability to work in a team; specifically to solve larger problems, communicate technical knowledge, partition a problem into smaller tasks, and complete tasks on time.	4	1st	CUJET
184	Advanced Web Development	Learning insights of modern java Script and React.js Fundamentals	4	1st	CUJET
185	Computer Graphics & Image Processing	Be able to understand basic concepts image processing, image storage and types of transformations that can be applied to images. Implement clipping algorithm on lines using OpenGL and To design an application with the principles of virtual reality	4	1st	CUJET
186	Object Oriented Programming & Practices	Decompose its problems in context of OOPS. Understand the use of OOP concept in program building environment and used the OOPS fundamental to provide a generic solution for real life problem.	4	1st	CUJET
187	Programming Abstractions	Design desktop applications which mimic the real world scenarios.	4	1st	CUJET
188	Integrated Project	To give exposure of major project works in Industry.	4	2nd	CUJET
189	Cyber Security	Develop a deeper understanding and familiarity with various types of cyber crimes, vulnerabilities and remedies there to.	4, 15	2nd	CUJET
190	Operating Systems	Know and learn the basic concepts of operating system, its functions, various system calls, process management, process synchronization, threads, semaphores and CPU Scheduling algorithms by taking the case study of Unix/Linux operating system and solve real life problems	4	2nd	CUJET
191	Networking Essentials	Demonstrate how network layer receive and send the packet using intermediate devices. Describe the importance of protocols in computer network.	4	2nd	CUJET
192	System Testing	To enable the students to handle manual as well as automation testing to help them to secure testing job profiles.	4,9	2nd	CUJET
193	System Software	Define various software application domains and remember different process model used in software development. To understand project scheduling concept and risk management associated to various type of projects.	4	2nd	CUJET
194	Back End Development	Designing and developing data driven applications using MongoDB	4,9	2nd	CUJET
195	Advanced Data Structure	Understand the memory representation and associated operations of various data structures also find the solutions to real life problems with the help of different data structures.	4,9	2nd	CUJET
196	Algorithm Design & Implementation	Optimization of various problems in terms of storage and execution using different algorithms	4,9	2nd	CUJET
197	Business Computing with CRM	Demonstrate knowledge of basic economic concepts and how they affect business.	4,9	3rd	CUJET
198	Disaster Management	Understanding foundations of hazards, disasters and associated natural/social phenomena	4,6	3rd	CUJET
199	Introduction to Unity Programming	Adding and manipulating GameObjects and their Components	4,9	3rd	CUJET
200	Theory of Computation	To provide students an understanding of basic concepts in the theory of computation.	4	3rd	CUJET
201	Front End Development	Getting expertise in developing dynamic front-end applications.	4,9	3rd	CUJET

202	Data Mining and Business Intelligence	Conceptualization of data mining and data warehouse. Conceptualization of data mining and data warehouse.	4	3rd	CUJET
203	Machine Learning using Python	Develop skills of using recent machine learning software for solving practical problems.	4	3rd	CUJET
204	Machine Learning using R	Discover patterns in the user data and then make predictions based on these and intricate patterns for answering business questions and solving business problems	4	3rd	CUJET
205	Artificial Intelligence	Use and learn Expert system architecture and its development also Learn MATLAB tool basics to explore AI on MATLAB. Solve problems using search techniques: depth-first, breadth-first, forward chaining, backward chaining, best-first and heuristic search.	4	3rd	CUJET
206	Internet Marketing	Know about the requirements of digital marketing services among different online domains	4, 12	3rd	CUJET
207	Industrial Training/Major Projects	Students are able to work on live projects and training projects	4, 17	4th	CUJET
208	Co-Op Project Work	To familiarize the students with basic processes of real life project development.	4, 16	4th	CUJET
209	ENGINEERING ECONOMICS, ESTIMATION & COSTING	Equips students with financial analysis skills essential for engineering project management.	8	5th	B.E. - Civil Engineering
210	STRUCTURE ANALYSIS-I LAB	Offers experience in analyzing the behavior of structures under different loading conditions.	9	3rd	B.E. - Civil Engineering
211	MECHANICS OF SOLIDS	Provides an understanding of the behavior of solid materials under various stresses and strains.	9	3rd	B.E. - Civil Engineering
212	MECHANICS OF SOLIDS LAB	Offers practical applications and experiments to reinforce theoretical concepts in solid mechanics.	9	3rd	B.E. - Civil Engineering
213	GEO-INFORMATICS	Introduces the use of spatial data and technology for analyzing and managing geographical information.	11	6th	B.E. - Civil Engineering
214	HYDROLOGY AND WATER RESOURCES ENGINEERING	Focuses on the study of water movement and management in natural and built environments.	11	5th	B.E. - Civil Engineering
215	PRESTRESSED CONCRETE	Covers advanced techniques for strengthening concrete structures to withstand tension.	9	5th	B.E. - Civil Engineering
216	TRACK 1 BRIDGE ENGINEERING	Explores the design, construction, and maintenance of bridges for various transportation needs.	11	7th	B.E. - Civil Engineering
217	GEOTECHNICAL ENGINEERING	Examines soil and rock behavior to design foundations and earth structures.	9	4th	B.E. - Civil Engineering
218	GEOTECHNICAL ENGINEERING LAB	Provides practical experience in conducting tests to analyze soil properties.	9	4th	B.E. - Civil Engineering
219	GROUND IMPROVEMENT TECHNIQUES	Covers methods to enhance the engineering properties of soil for construction purposes.	15	6th	B.E. - Civil Engineering
220	CO-OP PROJECT AT INDUSTRY	Offers students the opportunity to apply classroom knowledge to real-world engineering projects in industry settings.	17	8th	B.E. - Civil Engineering
221	INDUSTRY ORIENTED HANDS ON EXPERIENCE (IHOE)	Provides practical exposure to industry practices and processes in the field of civil engineering	17	8th	B.E. - Civil Engineering
222	TRANSPORTATION ENGINEERING	Focuses on the planning, design, and operation of transportation systems.	9	4th	B.E. - Civil Engineering
223	TRANSPORTATION ENGINEERING LAB	Offers practical exercises to understand transportation system components and operations.	9	4th	B.E. - Civil Engineering
224	GEO-INFORMATICS LAB	Introduces the use of spatial data and technology for analyzing and managing geographical information.	11	6th	B.E. - Civil Engineering
225	FLUID MECHANICS	Studies the behavior of fluids at rest and in motion, relevant to various engineering applications.	9	3rd	B.E. - Civil Engineering
226	FLUID MECHANICS LAB	Conducts experiments to demonstrate principles of fluid behavior and flow phenomena.	9	3rd	B.E. - Civil Engineering
227	PROGRAMMING FOR PROBLEM SOLVING	Develops problem-solving skills using programming languages applicable to engineering.	4	7th	B.E. - Civil Engineering
228	PROGRAMMING FOR PROBLEM SOLVING	Develops problem-solving skills using programming languages applicable to engineering.	4	3rd	B.E. - Civil Engineering
229	HYDRAULIC ENGINEERING	Focuses on the design and management of hydraulic systems and structures.	9	4th	B.E. - Civil Engineering
230	STRUCTURAL ANALYSIS I	Introduces methods for analyzing the behavior of structural elements under different loads.	9	3rd	B.E. - Civil Engineering
231	ENGINEERING EXPLORATION II (ONE YEAR DURATION)	Provides opportunities for students to work on engineering projects	17	4th	B.E. - Civil Engineering
232	STRUCTURAL ANALYSIS II	Advances the understanding of structural behavior under complex loading conditions.	9	4th	B.E. - Civil Engineering
233	DESIGN OF CONCRETE STRUCTURES - II	Explores advanced techniques for designing reinforced concrete structures.	11	6th	B.E. - Civil Engineering
234	COMPUTER AIDED DESIGN I	Introduces software tools for designing and modeling engineering systems and components.	9	3rd	B.E. - Civil Engineering
235	HUMAN VALUES AND PROFESSIONAL ETHICS	Addresses ethical considerations and professional responsibilities in engineering practice.	16	3rd	B.E. - Civil Engineering
236	CONSTRUCTION PLANNING AND MANAGEMENT	Covers principles and techniques for managing construction projects effectively.	8	6th	B.E. - Civil Engineering
237	ENGINEERING EXPLORATION III (ONE YEAR DURATION)	Provides opportunities for students to work on engineering projects	17	6th	B.E. - Civil Engineering
238	ENVIRONMENTAL ENGINEERING LAB	Conducts experiments related to water and air quality, waste management, and environmental protection.	6	4th	B.E. - Civil Engineering
239	LANGUAGE SKILLS - II	Enhances communication skills in a second language relevant to engineering contexts.	4	6th	B.E. - Civil Engineering
240	NUMERICAL ABILITY AND LOGICAL REASONING	Develops problem-solving and analytical skills necessary for engineering applications.	4	6th	B.E. - Civil Engineering
241	DISASTER MANAGEMENT	Covers strategies and techniques for mitigating and responding to natural and human-made disasters.	10	7th	B.E. - Civil Engineering
242	COMPUTER AIDED DESIGN III	Advances proficiency in using CAD software for complex engineering design tasks.	9	7th	B.E. - Civil Engineering
243	ENGINEERING EXPLORATION IV	Allows for further specialization and research in specific engineering areas.	17	7th	B.E. - Civil Engineering
244	ENVIRONMENTAL IMPACT ASSESSMENT AND LIFE CYCLE ANALYSIS	Focuses on evaluating the environmental consequences of engineering projects and products.	6	7th	B.E. - Civil Engineering
245	PROFESSIONAL PRACTICES	Covers professional standards, regulations, and responsibilities relevant to engineering practice.	4	7th	B.E. - Civil Engineering
246	ENVIRONMENTAL ENGINEERING	Addresses environmental issues and solutions related to water, air, and soil quality.	6	4th	B.E. - Civil Engineering
247	COMPUTER AIDED DESIGN II	Expands proficiency in using CAD software for engineering design and analysis.	9	5th	B.E. - Civil Engineering
248	DESIGN OF CONCRETE STRUCTURES I	Introduces basic principles and methods for designing concrete structures.	11	5th	B.E. - Civil Engineering
249	BUILDING MATERIAL AND CONSTRUCTION	Covers properties, selection, and use of materials in construction projects.	11	3rd	B.E. - Civil Engineering
250	BUILDING MATERIAL AND CONSTRUCTION LAB	Conducts experiments to understand material properties and behavior in construction.	11	3rd	B.E. - Civil Engineering
251	DESIGN OF CONCRETE STRUCTURES LAB	Offers practical exercises to reinforce concepts learned in concrete structure design.	11	5th	B.E. - Civil Engineering
252	DESIGN OF STEEL STRUCTURE	Covers principles and techniques for designing steel structures for various applications.	11	5th	B.E. - Civil Engineering
253	LANGUAGE SKILLS - II	Further enhances communication skills in a second language pertinent to engineering contexts.	4	7th	B.E. - Civil Engineering
254	ENGLISH II	Enhances proficiency in English language communication and comprehension skills.	4	3rd	B.E. - Civil Engineering
255	CYBER SECURITY	Covers principles and practices for protecting digital assets and information systems from cyber threats.	4	5th	B.E. - Civil Engineering
256	Applied Mechanics	Studies the application of mechanics principles to solve engineering problems.	9	1st	B.E. - Civil Engineering
257	Calculus and Matrices	Provides mathematical tools for analyzing and solving engineering problems.	4	1st	B.E. - Civil Engineering
258	Electrical and Electronics Lab	Offers practical experience in electrical and electronic circuits and systems.	4	1st	B.E. - Civil Engineering
259	Environmental Sciences	Studies the interaction between human activities and the environment, addressing sustainability and conservation.	15	1st	B.E. - Civil Engineering
260	Foundation Workshop	Introduces fundamental engineering concepts and skills essential for undergraduate study.	9	1st	B.E. - Civil Engineering
261	Fundamentals of Surveying	Covers basic principles and techniques for land surveying.	15	1st	B.E. - Civil Engineering
262	Fundamentals of Surveying - Lab	Provides hands-on experience in land surveying techniques and equipment.	15	1st	B.E. - Civil Engineering
263	Programming for Engineering Problem Solving	Develops programming skills for solving engineering problems.	4	1st	B.E. - Civil Engineering
264	Technical Communication	Enhances written and oral communication skills relevant to engineering practice.	4	1st	B.E. - Civil Engineering
265	Design Thinking	Introduces creative problem-solving methodologies for engineering design challenges.	4	2nd	B.E. - Civil Engineering
266	Engineering Exploration	Offers opportunities for students to explore diverse engineering disciplines and career paths.	17	2nd	B.E. - Civil Engineering
267	Engineering Physics	Applies principles of physics to engineering analysis and problem-solving.	4	2nd	B.E. - Civil Engineering
268	Engineering Physics Lab	Conducts experiments to reinforce concepts in engineering physics.	4	2nd	B.E. - Civil Engineering
269	Human Values & Professional Ethics	Emphasizes ethical principles and professional conduct in engineering practice	16	2nd	B.E. - Civil Engineering
270	Mathematical Models in Engineering	Utilizes mathematical modeling techniques to analyze and solve engineering problems.	4	2nd	B.E. - Civil Engineering
271	Object Oriented Programming	Introduces principles and techniques of object-oriented programming for engineering applications.	4	2nd	B.E. - Civil Engineering
272	Strength of Materials	Studies the behavior of materials under various loading conditions and structural elements.	11	2nd	B.E. - Civil Engineering
273	BUILDING MATERIAL AND CONSTRUCTION	Covers materials and techniques used in construction projects.	11	3rd	B.Tech - Civil Engineering
274	BUILDING MATERIAL AND CONSTRUCTION LAB	Provides hands-on experience in testing and analyzing construction materials.	11	3rd	B.Tech - Civil Engineering
275	COMPUTER AIDED DESIGN I	Introduces software tools for designing and modeling engineering systems.	9	3rd	B.Tech - Civil Engineering
276	ENGLISH II	Enhances proficiency in English language communication and comprehension skills.	4	3rd	B.Tech - Civil Engineering
277	FLUID MECHANICS	Studies the behavior of fluids in motion and at rest.	9	3rd	B.Tech - Civil Engineering
278	FLUID MECHANICS LAB	Conducts experiments to observe and analyze fluid flow phenomena.	9	3rd	B.Tech - Civil Engineering
279	HUMAN VALUES AND PROFESSIONAL ETHICS	Addresses ethical principles and professional conduct in engineering practice.	16	3rd	B.Tech - Civil Engineering
280	MECHANICS OF SOLIDS	Explores the behavior of solid materials under different loading conditions.	9	3rd	B.Tech - Civil Engineering
281	MECHANICS OF SOLIDS LAB	Provides practical exercises to reinforce concepts learned in solid mechanics.	9	3rd	B.Tech - Civil Engineering
282	PROGRAMMING FOR PROBLEM SOLVING	Develops problem-solving skills using programming languages applicable to engineering.	4	3rd	B.Tech - Civil Engineering
283	STRUCTURAL ANALYSIS I	Introduces methods for analyzing the behavior of structural elements under various loads.	11	3rd	B.Tech - Civil Engineering
284	STRUCTURE ANALYSIS-I LAB	Offers hands-on experience in analyzing the behavior of structures under different loading conditions.	11	3rd	B.Tech - Civil Engineering
285	CONSTRUCTION PLANNING AND MANAGEMENT	Covers principles and techniques for managing construction projects effectively.	8	5th	B.Tech - Civil Engineering
286	DESIGN OF CONCRETE STRUCTURES	Focuses on the design principles and practices for concrete structures.	11	5th	B.Tech - Civil Engineering
287	DESIGN OF CONCRETE STRUCTURES LAB	Conducts experiments related to the design and analysis of concrete structures.	11	5th	B.Tech - Civil Engineering
288	DISASTER MANAGEMENT	Covers strategies and techniques for mitigating and responding to natural and human-made disasters.	10	5th	B.Tech - Civil Engineering

289	ENVIRONMENTAL ENGINEERING II	Explores advanced topics in environmental engineering, such as pollution control and waste management.	6	5th	B.Tech - Civil Engineering
290	ENVIRONMENTAL ENGINEERING LAB	Conducts experiments related to environmental engineering principles and practices.	6	5th	B.Tech - Civil Engineering
291	IRRIGATION ENGINEERING	Studies the design and management of irrigation systems for agriculture.	9	5th	B.Tech - Civil Engineering
292	MINOR PROJECT	Involves a small-scale project focused on a specific area of study.	17	5th	B.Tech - Civil Engineering
293	PROJECT MANAGEMENT	Covers techniques and tools for managing engineering projects efficiently.	17	5th	B.Tech - Civil Engineering
294	PUBLIC HEALTH ENGINEERING DRAWING	Focuses on technical drawing related to public health engineering projects.	9	5th	B.Tech - Civil Engineering
295	SURVEY CAMP	Provides practical training in land surveying techniques and fieldwork.	11	5th	B.Tech - Civil Engineering
296	URBAN & REGIONAL PLANNING	Introduces principles and practices of urban and regional planning.	11	5th	B.Tech - Civil Engineering
297	CO-OP PROJECT AT INDUSTRY	Offers students the opportunity to apply classroom knowledge to real-world engineering projects in industry settings.	17	7th	B.Tech - Civil Engineering
298	INDUSTRIAL TRAINING	Provides practical training in industrial engineering practices and processes.	17	7th	B.Tech - Civil Engineering
299	ENVIRONMENTAL ENGINEERING-I	Covers fundamental principles of environmental engineering, such as water and air pollution.	6	4th	B.Tech - Civil Engineering
300	FLUID MECHANICS-II	Expands on the principles of fluid mechanics introduced earlier in the curriculum.	9	4th	B.Tech - Civil Engineering
301	FUNDAMENTALS OF ARCHITECTURAL DRAWING	Introduces basic drawing techniques and principles for architectural design.	11	4th	B.Tech - Civil Engineering
302	GEOTECHNICAL ENGINEERING	Examines soil and rock behavior to design foundations and earth structures.	9	4th	B.Tech - Civil Engineering
303	GEOTECHNICAL ENGINEERING LAB	Provides practical experience in conducting tests to analyze soil properties.	9	4th	B.Tech - Civil Engineering
304	PLUMBING PRACTICES-I	Covers basic plumbing techniques and practices.	9	4th	B.Tech - Civil Engineering
305	CYBER SECURITY	Covers principles and practices for protecting digital assets and information systems from cyber threats.	4	6th	B.Tech - Civil Engineering
306	DESIGN OF STEEL STRUCTURES-I	Introduces principles and practices for designing steel structures.	9	6th	B.Tech - Civil Engineering
307	ESTIMATION & COSTING	Covers methods for estimating project costs and managing budgets.	8	6th	B.Tech - Civil Engineering
308	FIRE FIGHTING ENGINEERING	Studies fire dynamics, prevention, and suppression techniques.	9	6th	B.Tech - Civil Engineering
309	FIRE FIGHTING ENGINEERING LAB	Provides hands-on experience in fire safety equipment and procedures.	9	6th	B.Tech - Civil Engineering
310	LIFE SKILLS-II	Covers personal development skills relevant to engineering professionals.	4	6th	B.Tech - Civil Engineering
311	MAJOR PROJECT	Involves a substantial research or design project typically undertaken in the final year of study.	17	6th	B.Tech - Civil Engineering
312	NUMERICAL ABILITY & LOGICAL REASONING	Develops problem-solving and analytical skills using numerical and logical reasoning.	4	6th	B.Tech - Civil Engineering
313	TRANSPORTATION ENGINEERING	Focuses on the planning, design, and operation of transportation systems.	9	6th	B.Tech - Civil Engineering
314	TRANSPORTATION ENGINEERING LAB	Offers practical exercises to understand transportation system components and operations.	9	6th	B.Tech - Civil Engineering
315	CONCRETE TECHNOLOGY	Covers the properties, production, and application of concrete in construction.	9	8th	B.Tech - Civil Engineering
316	CYBER SECURITY	Covers principles and practices for protecting digital assets and information systems from cyber threats.	4	8th	B.Tech - Civil Engineering
317	DESIGN OF STEEL STRUCTURES	Expands on the design principles and practices for steel structures.	9	8th	B.Tech - Civil Engineering
318	ENGINEERING GEOLOGY	Studies the geological aspects relevant to engineering projects and construction.	15	8th	B.Tech - Civil Engineering
319	INDIAN CONSTITUTION	Introduces the framework and principles of the Indian Constitution relevant to engineering practice.	16	8th	B.Tech - Civil Engineering
320	MAJOR PROJECT	Involves a substantial research or design project typically undertaken in the final year of study.	17	8th	B.Tech - Civil Engineering
321	SEMINAR	Involves presentations and discussions on current topics and issues in engineering.	4	8th	B.Tech - Civil Engineering
322	TRANSPORTATION ENGINEERING	Focuses on the planning, design, and operation of transportation systems.	9	8th	B.Tech - Civil Engineering
323	TRANSPORTATION ENGINEERING LAB	Offers practical exercises to understand transportation system components and operations.	9	8th	B.Tech - Civil Engineering
324	Basics of Computer Science	Analyze and design various combinational and sequential circuits.	4	1st	CUJET
325	PC Assembly and Troubleshooting	Understand the basics of computer hardware and computer software.	4	1st	CUJET
326	Foundation Course in Mathematics	Student will construct and analyze the graphs of trigonometry functions. Students will apply the concepts of trigonometry to any angle in a rectangular coordinate plane.	4	1st	CUJET
327	Programming Concepts	Apply fundamental logic-building tools such as pseudo code and flowcharts for developing simple programming logic.	4	1st	CUJET
328	UI Design for Website - Lab	Develop understand and write basic HTML tags and use of elementary text formatting tags for web pages.	4, 9	1st	CUJET
329	Environmental Sciences	To identify and analyze environmental problems both natural (disasters such as floods and earthquakes) and man-made (industrial pollution and global warming)	4, 13	1st	CUJET
330	Strategies for visual communication systems.	Group project, towards community market to promote sustainable living	10,11,12	7 (2020)	Department of Communication Design , Chitkara Design School
331	Introduction to Programming Languages	Ability to interpret the concept of arrays, function and storage classes.	4	2nd	CUJET
332	Networking Fundamentals	Describe the importance of protocols in computer network	4	2nd	CUJET
333	Software Engineering	Apply the software engineering life cycle by demonstrating competence in communication, planning, analysis, design, construction, and deployment	4	2nd	CUJET
334	Basics of Statistical Mathematics	To analyze and correlate many real-life problems mathematically and thus find the appropriate solution for them using theory of probability	4	2nd	CUJET
335	Web Designing	To design and develop static webpages.	4	2nd	CUJET
336	Human Values & Professional Ethics/Indian Culture	Learners shall be aware of the development of legal analysis, legal communication, and legal research	4, 16	2nd	CUJET
337	Fundamentals of Object-Oriented Programming	Apply the OOPS paradigm to solve real life problems	4	3rd	CUJET
338	Relational Database Management System	Describe the fundamental elements of Database Management Systems with a focus on Relational Database management systems	4	3rd	CUJET
339	Web Programming using PHP	Modularize their problems using Functions and Constructs, PHP and the Web, Arrays and implementation of Dynamic Website	4	3rd	CUJET
340	Content, Context and Interaction	students chose their own theme based in SDGs related to digital ecosystem	5, 13,14,15, 16	7 (2020)	Department of Communication Design , Chitkara Design School
341	Artificial Intelligence	Learn the basic concepts of Artificial Intelligence	4	3rd	CUJET
342	Discrete Mathematics	To solve real life problems using combinatorv	4	3rd	CUJET
343	Disaster Management	To increase the knowledge and understanding of the disaster phenomenon, its different contextual aspects, impacts and public health consequences	4	3rd	CUJET
344	Digital Marketing	Provide online tools to implement social media marketing to increase the online presence to business	4	3rd	CUJET
345	Programming in Java	Awareness of object-oriented programming features with respect to Java Language	4, 9	4th	CUJET
346	Major Project	To provide the means to better understand about the project development life cycle	4, 9	4th	CUJET
347	Front End Development	Understanding component-based web application development process	4, 9	4th	CUJET
348	Software Testing	Planning and Designing Software testing Process	4, 9	4th	CUJET
349	Operating System Concepts	Learn to manage memory using various allocation methods and address translation schemes, appraise concept of paging and concept of virtual memory	4	4th	CUJET
350	Digital Interfaces and Process	Students work on new Technology such as AR /VR	9,17	6 (2019)	Department of Communication Design , Chitkara Design School
351	Programming in Python	Learn Professional way of writing code using modular and object-oriented approach.	4, 9	4th	CUJET
352	Multimedia & Animation	Understand multimedia and animation components using various tools and techniques.	4	4th	CUJET
353	Data Warehousing & ETL Technologies	Recall the architectural design patterns, summarizability problems, and design methodologies and apply these concepts to mini case studies on data warehouse.	4	5th	CUJET
354	Back End Development	Designing and developing data driven applications using MongoDB	4	5th	CUJET
355	Algorithm Design and Implementation	Understanding the Java concepts for making student employable in robust software development environment	4	5th	CUJET
356	Cyber Security	Learn about the concept of cyber terrorism along with intellectual property in the cyberspace	4	5th	CUJET
357	Programming Practices	Understand the various concepts of OOPS and its benefits	4	5th	CUJET
358	Advance Java Programming	Implement various events classes, event listener and adaptor classes. Understand various collections in Java and their application	4	6th	CUJET
359	Introduction to Data Sciences	Learn techniques and tools for transformation of data	4	6th	CUJET
360	Design Concepts & Concerns	Studying the eco system of near by villages	3,4,6	3 (2021)	Department of Communication Design , Chitkara Design School
361	Introduction to Cloud & IoT	Compare, contrast, and evaluate the key trade-offs between multiple approaches to cloud system design, and identify appropriate design choices when solving real-world cloud computing problems	4	6th	CUJET
362	System Design	Examine and categorize various memory management techniques like caching, paging, segmentation, virtual memory, and thrashing; Design and implement file management system	4	6th	CUJET
363	Industrial Training	Design engineering solutions to complex problems utilizing a systems approach	4, 9	6th	CUJET
364	Project -I Social Communication	Developing participatory understanding of team work, problem solving.	5,10	3 (2021)	Department of Communication Design , Chitkara Design School
365	Disaster management	Students learn about the protective measures in relation to disaster management and the visual communication methods to disseminate the information related to same	12,13,14,15	3 (2022)	Department of Communication Design , Chitkara Design School
366	Digital Tools and Techniques-I & II	Students work on new Technology such as AR /VR, photoshop etc.	11,12	1 & 2(2022)	Department of Fine Arts, Chitkara Design School
367	Ceramic- I & Ceramic- II	Studying the eco system of near by villages and work with local earthenware artists.	4, 9, 15	3 & 4 (2021)	Department of Fine Arts, Chitkara Design School
368	Aesthetics-I & Aesthetics-II	students chose their own theme based in SDGs related to digital ecosystem.	3, 4, 5, 11	3 & 4(2021)	Department of Fine Arts, Chitkara Design School
369	Portrait Painting- I &Portrait Painting- II	Students achieve the industry oriented skill set and train in a way to sustain in high commercial environment.	4,9	4 & 5 (2020)	Department of Fine Arts, Chitkara Design School
370	Professional Practices-VII	Group project, towards community market to promote sustainable living , Developing participatory understanding of team work, problem solving.	4,8, 9, 12	7 (2019)	Department of Fine Arts, Chitkara Design School
371	Disaster management	Students learn about the protective measures in relation to disaster management and the visual communication methods to disseminate the information related to same.	12,13,14,15	4 (2021)	Department of Fine Arts, Chitkara Design School
372	Disaster Management	To create awareness among students about the conceptual understanding of disasters and its relationships with development.	11,13,17	First	Chitkara School of Mass Communication
373	Environment Science	To understand the concept of climate change, global warming, acid rain, various disasters and its mitigation measures.	13,14,15	Second	Chitkara School of Mass Communication
374	Development Communication	To educate the students to deal with the challenges they face in communicating about development and economic issues.	13,10	Second	Chitkara School of Mass Communication
375	Media Literacy	To prepare skilled digital journalist, professionals for the industry.	4,16	Second	Chitkara School of Mass Communication

376	Gender Studies and Media	To understand the role of the media in constructing gender and its intersections with sexuality, race and ethnicity.	5,10	Third	Chitkara School of Mass Communication
377	Cyber Security	Understand the Information Technology Act of India (IT).Protect themselves from various Cybercrimes.	16	Third	Chitkara School of Mass Communication
378	Media Laws	To understand the basic press and media laws in India	16	Fourth	Chitkara School of Mass Communication
379	Media Ethics	To understand the ethical dilemmas and new standards of journalism ethics.	16	Fourth	Chitkara School of Mass Communication
380	Human Rights	The students shall be able to link value education towards professional ethics.	16	Fourth	Chitkara School of Mass Communication
381	Production for Digital Media	The student will learn to create digital content for different social media platforms.	9	Fourth	Chitkara School of Mass Communication
382	Corporate Communication	The students shall attain knowledge about the definitions and concepts of corporate communication.	8	Fifth	Chitkara School of Mass Communication
383	Mental well being and Happiness	To provide students with the comprehensive understanding of mental health and well being.	3	Fifth	Chitkara School of Mass Communication
384	Industrial Training	The students shall perform in his selective media industry and exhibiting the talent may be absorbed in the industry before getting the degree in hand.	8	Sixth	Chitkara School of Mass Communication
385	Reporting, Editing and Photography	To understand News its and elements, news sources and different types of news.	8	First	Chitkara School of Mass Communication
386	Media Management	Able to understand basic elements of functioning of a media organization	9	Second	Chitkara School of Mass Communication
387	Media Ethics and Law	To introduce Indian Constitution with a focus on the responsibility of the Constituent Assembly in framing the Constitution and probing the real meaning of the Preamble.	16	Second	Chitkara School of Mass Communication
388	New Media	Students will be able to analyze the sensitive issues of the society and report accordingly.	9	Second	Chitkara School of Mass Communication
389	Media Research	To develop an understanding of media industries and institutions, the role that research plays within the knowledge economy and future career development.	9	Third	Chitkara School of Mass Communication
390	Corporate Communication	The students shall attain knowledge about the definitions and concepts of corporate communication.	8	Third	Chitkara School of Mass Communication
391	New Media Production	Students will be able to write effectively for the online platforms	9	Third	Chitkara School of Mass Communication
392	Industrial Training	The students shall perform in his selective media industry and exhibiting the talent may be absorbed in the industry before getting the degree in hand.	8	Fourth	Chitkara School of Mass Communication
393	Architectural Design I	The course introduces design principles and their application in 2D and 3D compositions, along with the study of architectural design and space usage. It includes exercises on designing single-purpose spaces and uni-functional buildings, with a focus on anthropometrics, scale, proportions, and the multi-sensory aspects of space.	9,12	1	CSPA-Architecture
394	Building Materials and Construction I	The course covers the manufacturing processes, types, properties, and uses of various building materials like bricks, stone, cement, mortar, and concrete, along with practical site visits. It also delves into the structural and functional roles of different components of a building, types of masonry, foundations, damp-proofing methods, traditional construction techniques, and details of openings and flooring.	9,11,12,13	1	CSPA-Architecture
395	Communication Skills	The course covers reading and analytical skills for literature, essay writing with a focus on thesis statements, essay structure, and various types of essays. It also includes vocabulary enhancement through synonyms, antonyms, and one-word substitution, as well as skills related to effective listening, note-taking, report writing, presentation techniques, public speaking, and group discussion.	4,5,16,17	1	CSPA-Architecture
396	Architectural Design II	The course introduces architectural design and space usage, with a focus on site planning, the relationship between indoor and outdoor spaces, and the interdependence of form, function, building materials, and structure. It includes exercises on designing simple, single-storied buildings and multi-cellular structures, culminating in a comprehensive design project involving a single-storied, multi-functional building.	9,12	2	CSPA-Architecture
397	Building Materials and Construction II	The course covers topics related to timber, including types, properties, defects, seasoning, and uses. It explores basic carpentry joints for doors and windows, roofing materials for sloping roofs, lintels, arches, types of doors and windows in timber, wood construction characteristics, timber frame walls, flooring types, and various timber roofs with construction methods. The content also includes details on wall paneling, timber partition walls, and finishes for timber floors.	9,11,12,13	2	CSPA-Architecture
398	Computer Applications in CSPA-Architecture I	The course covers essential skills in Microsoft Office applications, starting with MS Word, where participants learn document creation, formatting, inserting elements like pictures and tables, and utilizing features like headers, footers, and page numbers. In MS Excel, the focus is on creating workbooks, formatting data, applying functions, and creating charts, while MS PowerPoint instruction includes creating presentations, applying templates and themes, inserting various elements, and delivering effective presentations with tips on organization and design.	9,12	2	CSPA-Architecture
399	Architectural Design III	The course covers lectures on the design aspects of 2-storied, load-bearing buildings, followed by a minor design project related to vehicular movements. The final part includes lectures on campus design and a comprehensive project for a small campus like a primary school, emphasizing structures and building services, with additional time devoted to model making techniques.	9,12	3	CSPA-Architecture
400	Building Materials & Construction III	The course covers glass manufacturing, paints, cladding, and plastering in Unit-I. Unit-II explores staircase design, false ceilings, aluminum partitions, doors, and windows. Unit-III details sections of a 2-4 storied building, covering toilets, staircases, walls, floors, and roof. Suggested reference books include "Building Construction Illustrated" by Francis D.K. Ching and "The Construction of Buildings" by R. Barry.	9,11,12,13	3	CSPA-Architecture
401	Building Services I	The course begins with an introduction to building services, emphasizing the architect's role in providing services for contemporary buildings. It then covers water supply, sewage disposal systems, and rainwater harvesting, exploring their components and connections within the context of residential buildings.	6,7,9,11,12,13	3	CSPA-Architecture
402	Computer Applications in CSPA-Architecture II	The course begins with fundamental commands and tools in AutoCAD (Unit-I), covering basic drawing, editing commands, advanced object types, text, dimensions, and workspace organization. Unit-II focuses on advanced commands such as block insertion, layout setup, Express Tools, external references, and shortcuts. Lastly, Unit-III introduces AutoCAD Sheet Sets, covering topics like creating and managing sheet sets, views, plot styles, page setups, and publishing to various file types.	9,12	3	CSPA-Architecture
403	Architectural Design IV	The course covers lectures on the design of 4-storied buildings, including frame structures, vertical circulation, building services, and vernacular architecture with climate-responsive techniques. It also includes practical projects designing a region-specific Cafe/Takeaway Restaurant and a 9-week project involving a Motel/Youth Hostel with Restaurant, Dharamshala, Boutique Hotel, and Focal Building.	9,11,12,13	4	CSPA-Architecture
404	Climatology	The course covers the fundamentals of Climate Responsive Architecture, including an introduction to climatic elements, zones in India, and bioclimatic design principles. It progresses to explore global climate, solar path, shading devices, heat exchange, and microclimatic factors, including case studies of indigenous shelters and contemporary passive design methods across different climatic zones.	9,13	4	CSPA-Architecture
405	Building Materials & Construction IV	The course covers advanced concrete materials and techniques, such as Air Entrained Concrete, Ready Mix Concrete, and Fiber Reinforced Concrete. Additionally, it explores various infill wall materials, types of concrete formworks, scaffolding, shoring, and construction details for columns, beams, expansion joints, and basements.	9,11,12,13	4	CSPA-Architecture
406	Building Services II	The course covers sewage disposal, including campus-level treatment plants and solid waste disposal in multistorey buildings. It also explores electrical services, focusing on electricity generation, distribution, wiring, protection, earthing, and energy efficiency. Additionally, the course covers mechanical transportation systems, such as lifts, escalators, and travelers, emphasizing design considerations and standards, with recommended site visits for practical understanding.	6,7,9,11,12,13	4	CSPA-Architecture
407	Computer Applications in CSPA-Architecture III	The course introduces SketchUp, covering setup, basic geometry, 3D construction, modification tools, groups/components, materials, text, and dimensions. It also explores sectioning, styles, imaging with V-Ray, and animations, including predefined styles, scene creation, layers, lighting, shadows, and exporting models to various formats.	9,12	4	CSPA-Architecture
408	Architectural Design V	The course involves two design projects. The first project focuses on designing a small group of 3-4 storied buildings, incorporating aspects of building and vehicular/pedestrian circulation for recreational or mixed-use complexes. The second project centers on the design of a small group of industrial buildings with a focus on steel construction, including lectures on understanding steel construction and case examples of recent industrial buildings. Additionally, a special lecture by an eminent architect is recommended during the semester.	7,9,12	5	CSPA-Architecture
409	Building Materials & Construction V	The course content covers the fundamentals of construction in steel, including characteristics of steel sections, jointing methods, and applications in various structures and building parts. It further explores frame construction elements such as columns, footings, beams, outer walls, lightweight partitions, doors, windows, floors, mezzanine floors, stairs, trusses, and structural details of a north light truss roofing system.	9,11,12,13	5	CSPA-Architecture
410	Building Services III	The course covers Heating, Ventilation & Air Conditioning (HVAC) with a focus on ventilation, HVAC system types, design considerations, AC ducting, and a case study. Additionally, it introduces the basics and advanced aspects of Fire Fighting Services, covering passive and active measures, structural fire protection, and National Building Codes for firefighting. Site visits are recommended for a practical understanding of the subject.	6,7,9,11,12,13	5	CSPA-Architecture
411	Computer Applications in CSPA-Architecture IV	The course emphasizes practical application in Revit Architecture, requiring students to develop a portfolio from the design project. It covers drawing preparation, image enhancement, 3D model manipulation, integration with photos, depth perception, and animation in Photoshop. Assessment includes a portfolio project covering image manipulation, 3D model integration, and animation tasks.	9,12	5	CSPA-Architecture
412	Architectural Design VI	The course features two design projects. Project One involves designing multistoried buildings on a sloping site, emphasizing space analysis, climatic considerations, services, environmental issues, and contour site planning. Project Two focuses on landscaping details, including hardscape, softscape, and technology integration in the design process. Field trips are mandatory, and at least one special lecture by an eminent architect is recommended.	7,9,12	6	CSPA-Architecture
413	Building Materials & Construction VI	The course covers Alternate Construction Materials such as Rice Husk Ash, Ferro cement, Tire Veneer, and others in Unit I. Unit II focuses on Prefabrication & Precasting, including precast RCC frames and connections between components. Unit III explores Speedy Construction Methods, including one-way and two-way slabs, lift slab construction, and modular coordination in Unit IV.	9,11,12,13	6	CSPA-Architecture
414	Computer Applications in CSPA-Architecture V	The course covers BIM and Revit concepts, setting up projects, basic architectural modeling, and adding features like columns, walls, doors, and windows. It further includes creating views, families, and modifying components, as well as managing projects in Revit workflow, covering templates, standards, text, dimensions, details, tags, and sheet setup for plotting.	9,12,13	6	CSPA-Architecture
415	Cost Effective Architecture	The course covers "Cost-effective Architecture," addressing the definition, strategies, and organizations related to Cost-effective buildings (CEBs). It explores techniques, technologies, and materials for cost reduction, including case studies of architects like Laurie Baker and examples of affordable housing. The emphasis is on analyzing cost-effective building designs in terms of initial investment, maintenance, and longevity.	9,12	6	CSPA-Architecture
416	Human Rights & Values	The course entails designing a 6-8 storied urban building (mixed-use or specialized) with lectures covering functional aspects, structure, and services. Students create detailed drawings and models, aiming for a well-designed structure, and a special lecture by an eminent architect is included.	4,5,10,16,17	6	CSPA-Architecture
417	Architectural Design VII	The course introduces Disaster Risk Management (DRM) with a focus on natural and human-induced disasters, hazard identification, vulnerability assessment, and the DRM cycle. It explores design principles and measures for building safety, emergency response, and recovery. The application involves a case study on a public building in an urban context, emphasizing risk assessment and the formulation of a Disaster Risk Management Plan.	7,9,12	7	CSPA-Architecture
418	Disaster Risk Management	The course covers environmental concepts, including ecosystems, biodiversity, and resources. It addresses environmental problems such as pollution, climate change, and urban issues, focusing on preventive actions, environmental acts, and Environment Impact Assessment for architectural projects.	9,13	7	CSPA-Architecture
419	Environmental Studies	The course covers environmental concepts, including ecosystems, biodiversity, and resources. It addresses environmental problems such as pollution, climate change, and urban issues, focusing on preventive actions, environmental acts, and Environment Impact Assessment for architectural projects.	9,11	7	CSPA-Architecture

420	Conservation of Historic Buildings	The course focuses on identifying and evaluating historic environments, covering World Heritage, architectural conservation, decay causes, and intervention methods like preservation and adaptive reuse. The practical component involves a case study, documenting a historic site and providing recommendations for conservation actions.	9,11,12,13	7	CSPA-Architecture
421	Vernacular Built Environments	The course covers vernacular architecture, exploring challenges and global examples, emphasizing determinants like culture, climate, and materials. It includes case studies from India, Asia, and Africa, analyzing socio-cultural aspects, climatic influences, and construction techniques.	9,13	7	CSPA-Architecture
422	Architectural Design VIII	The course focuses on urban design projects, including redevelopment of small-scale urban areas and new initiatives like community centers. Special lectures cover principles, methodologies, and case studies. In groups of 2-4, students create drawings and models highlighting the chosen project's functional, spatial, formal, and technical aspects.	7,9,11,12,13	8	CSPA-Architecture
423	Sustainable Development of the Built Environment	The course covers sustainability fundamentals, including its global importance and impact on the built environment. It explores sustainable design options, construction planning, and simulation tools for analyzing heating and lighting in buildings.	9,11,12,13	8	CSPA-Architecture
424	Professional Internship	The course covers the institutional framework of architecture, emphasizing the roles and obligations of architects, the Indian Architects Act 1972, the Council of Architecture, and the Indian Institute of Architects. It also explores architectural practice, including office setup, organizational management, competitions, valuation methods, and professional conduct, addressing duties, liabilities, and the resolution of complaints under the Indian Architects Act 1972.	4,8,9,17	9	CSPA-Architecture
425	Architectural Thesis	The course centers on the Thesis project, where students must produce an illustrated report covering project validity, scope, methodology, theoretical studies, site and climatic analysis, client's and architect's briefs, program delineation, and design criteria. A fully developed design proposal is also required, addressing functional efficiency, site planning, climatic appropriateness, structures, services, and other project-specific aspects.	7,9,11,12,13	10	CSPA-Architecture
426	Entrepreneurship Skills for Architects	The course covers Entrepreneurship & Motivation, addressing types of entrepreneurs, economic growth factors, and motivational influences. It also includes Business topics like small enterprises, project formulation, financing, accounting, and Support to Entrepreneurs, encompassing sickness in small businesses, corrective measures, government policies, and growth strategies.	9,11	10	CSPA-Architecture
427	Disaster Management	To create awareness among students about the conceptual understanding of disasters and its relationships with development.	11,13,17	BA JMC	
428	Environment Science	To understand the concept of climate change, global warming, acid rain, various disasters and its mitigation measures.	13,14,15	First	Chitkara School of Mass Communication
429	Development Communication	To educate the students to deal with the challenges they face in communicating about development and economic issues.	13,10	Second	Chitkara School of Mass Communication
430	Media Literacy	To prepare skilled digital journalist, professionals for the industry.	4,16	Second	Chitkara School of Mass Communication
431	Gender Studies and Media	To understand the role of the media in constructing gender and its intersections with sexuality, race and ethnicity.	5,10	Second	Chitkara School of Mass Communication
432	Cyber Security	Understand the Information Technology Act of India (ITA). Protect themselves from various Cybercrimes.	16	Third	Chitkara School of Mass Communication
433	Media Laws	To understand the basic press and media laws in India	16	Third	Chitkara School of Mass Communication
434	Media Ethics	To understand the ethical dilemmas and new standards of journalism ethics.	16	Fourth	Chitkara School of Mass Communication
435	Human Rights	The students shall be able to link value education towards professional ethics.	16	Fourth	Chitkara School of Mass Communication
436	Production for Digital Media	The student will learn to create digital content for different social media platforms.	9	Fourth	Chitkara School of Mass Communication
437	Corporate Communication	The students shall attain knowledge about the definitions and concepts of corporate communication.	8	Fourth	Chitkara School of Mass Communication
438	Mental well being and Happiness	To provide students with the comprehensive understanding of mental health and well being.	3	Fifth	Chitkara School of Mass Communication
439	Industrial Training	The students shall perform in his selective media industry and exhibiting the talent may be absorbed in the industry before getting the degree in hand.	8	Fifth	Chitkara School of Mass Communication
440	Reporting, Editing and Photography	To understand News its elements, news sources and different types of news.	8	Sixth	Chitkara School of Mass Communication
441	Media Management	Able to understand basic elements of functioning of a media organization	9	First	Chitkara School of Mass Communication
442	Media Ethics and Law	To introduce Indian Constitution with a focus on the responsibility of the Constituent Assembly in framing the Constitution and probing the real meaning of the Preamble.	16	Second	Chitkara School of Mass Communication
443	New Media	Students will be able to analyze the sensitive issues of the society and report accordingly.	9	Second	Chitkara School of Mass Communication
444	Media Research	To develop an understanding of media industries and institutions, the role that research plays within the knowledge economy and future career development.	9	Second	Chitkara School of Mass Communication
445	Corporate Communication	The students shall attain knowledge about the definitions and concepts of corporate communication.	8	Third	Chitkara School of Mass Communication
446	New Media Production	Students will be able to write effectively for the online platforms	9	Third	Chitkara School of Mass Communication
447	Industrial Training	The students shall perform in his selective media industry and exhibiting the talent may be absorbed in the industry before getting the degree in hand.	8	Third	Chitkara School of Mass Communication
448	Facility planning	Hvac (Heating, Ventilation and Air-conditioning), Water management system, Environmental Issue (Water softening, RO Process, Drinking water, Kitchen Water), Swimming pool water, Fire Prevention and Control, Building management System (BMS), Sanitation and waste Disposal system (STP WTP), Repair and maintenance, License, Plant maintenance, Star classification as per FHRAI - Environment & Energy Awareness	11,6,4	Fourth	Chitkara School of Mass Communication
449	Disaster management	Approaches to Disaster Risk reduction, Disaster Risk Management in India, Components of Disaster Relief: Water, Food, Sanitation, Shelter, and Health, Waste Management	15,13,12,11	4	CCHM
450	Environmental studies	Introduction to Environmental Science. Environmental Resources. Ecosystem and Biodiversity. Environmental Pollution. Social Issues and the Environment.	6,11,13,15	5	CCHM
451	HMC6101	Food Production I	1,2,6,9,11,12	I	CCHM
452	HMC4102	F&B Service I	1,2,9,12	I	CCHM
453	HMC3103	Front Office Operation I	2,9,12	I	CCHM
454	HMC3104	Accommodation Operation I	2,9,12	I	CCHM
455	HMC6111	Food Production II	1,2,6,9,11,12	II	CCHM
456	HMC4112	F&B Service II	1,2,9,12	II	CCHM
457	HMC3113	Front Office Operation II	2,9,12	II	CCHM
458	HMC3114	Accommodation Operation II	2,9,12	II	CCHM
459	HML2117	Customer Relations Management	4	II	CCHM
460	HML2115	Business Communication II	4, 5, 8, 15	II	CCHM
461	HMP4201	Food Production Application	1,2,6,9,11,12	III	CCHM
462	HMP4202	Food & Beverage Application	3,9,12	III	CCHM
463	HMP4203	Front Office Application	2,9,12	III	CCHM
464	HMP4204	Accommodation Application	2,9,12	III	CCHM
465	HML2208	Foundation Course in Tourism	4	III	CCHM
466	HML2209	Human Resource Management	4	III	CCHM
467	HML2206	Hospitality Marketing	1,2,8,9,11,12	III	CCHM
468	HML2318	Facility Planning	6,8,11,12	III	CCHM
469	HMP2205	Business Communication III	4, 5, 8, 15	III	CCHM
470	HMT9201	Business Internship I	2,12	IV	CCHM
471	HML2317	Human Values & Ethics	4, 5, 8, 15	IV	CCHM
472	HML2316	Disaster management	1,2,4,5,8,9,10,12,11	IV	CCHM
473	HMT9301	Business Internship II	2,12	V	CCHM
474	HML2116	Cyber Security	4, 8,11	V	CCHM
475	HML2207	Environmental Studies	1,2,3,8,9,12	V	CCHM
476	HMP9301	Hospitality Project	2,12	VI	CCHM
477	HMP4305	Business Communication IV	4, 5, 8, 15	VI	CCHM