Courses That Include Experiential Learning Through Project Work/Field work/Internship.

BRANCH : Civil Engineering

ACADEMIC YEAR : 2019– 20

Courses that include experiential learning through project work	Project domain	justification
Elements of Mechanical Engineering Engineering /Applied Physics Lab Engg. Workshop & IT Workshop Probability & Statistics Surveying Survey Field Work - I Survey Field Work - II	Basic Projects with Multidisciplinary & Planning Layouts	Basic Knowledge of Mathematics and science are needed to understand any engineering problem.
Strength of Materials-I Building Materials & Construction Strength of Materials Lab Building Planning & Drawing Strength of Materials - II Concrete Technology Structural Analysis - I Structural Analysis -II Design & Drawing of Reinforced Concrete Structures Design & Drawing of Steel Structures Concrete Technology Lab GIS & CAD Lab	Structural Engineering	These courses help the students to do Design in various types of Structures, Study various properties of ingredients of concrete.
Fluid Mechanics Hydraulics & Hydraulic Machinery FM & HM Lab Irrigation Design & Drawing Engineering Geology	Hydraulics and Water Resources Engineering	These courses help the students to do Geometric design of design various hydraulics and water resources structures.
Geology Lab Geotechnical Engineering - I	Geotechnical Engineering	These courses help the students to do Geometric design of foundations in various types of soils for various structures.
Transportation Engineering - I Transportation Engineering - II Transportation Engineering Lab	Transportation Engineering	These courses help the students to plan and design Highways, Railways, Airports, Docks and harbours.
Environmental Engineering –I	Environmental Engineering	These courses help the students to plan and design water and waste water treatment system gaining expertise in subject knowledge

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Courses That Include Experiential Learning Through Project Work/Field work/Internship.

BRANCH: EEE

ACADEMIC YEAR: 2019 – 20

Courses that include experiential learning through project work	Project domain	justification
Digital Electronics Data Structures Through C Data Structures through C Lab Instrumentation Electrical Measurements & Control Systems Laboratory Electrical Measurements Laboratory Power Electronic Controllers & Drives Micro Processors and Micro controllers Power Electronics Laboratory Microprocessors & Microcontrollers Laboratory Linear IC Applications Instrumentation Digital Control Systems Mathematics-II(Linear Algebra and Numerical Methods) Engineering Drawing & Design Electrical Engineering Workshop	Industrial automation coding	Basic Knowledge of Mathematics and science are needed to understand any engineering problem
Electrical Circuit Analysis -I Electrical Circuit Analysis-II Electrical Machines-I Basic Electronic Devices & Circuits Electromagnetic Fields Thermal & Hydro Prime Movers Electrical Circuits Laboratory Electrical Machines-II Electrical Machines -I Laboratory Electronic Devices & Circuits Laboratory Renewable Energy Sources Electrical Machines-II Laboratory Special Electrical Machines	Electric vehicle Solar applications	Basic Engineering fundamentals and engineering specializations are needed to understand any engineering problem
Power System Analysis Energy Audit and		

Conservation&Management Utilization of Electrical Energy Power Systems-II Power Systems-I Power System Operation & Control Switchgear and Protection Electrical Simulation Laboratory Power Systems & Simulation Laboratory HVDC Transmission Electrical Distribution Systems Flexible Alternating Current Transmission Systems Seminar Project	Power generation, transmission, distribution, measurements Smart grid Smart home Smart grid, Power generation, robots	These courses help the students to do programming/simulation/hardware implementations These courses help the students to do hard ware implementation gaining expert knowledge

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Courses That Include Experiential Learning Through Project Work/Field work/Internship.

BRANCH: Mechanical Engineering

ACADEMIC YEAR: 2019 – 20

Courses That Include Experiential Learning Through Project Work	Project Domain	Justification
Mechanics Of Solids & Metallurgy Lab Project Finite Element Methods Computer Graphics Metrology Theory Of Machines Lab Design Of Machine Members-I Metallurgy & Mechanics Of Solids Lab Machine Drawing Mechanics Of Solids Instrumentation & Control Systems Metrology & Instrumentation Lab Vector Calculus & Fourier Transforms Design Of Machine Members -I	They can design any machine part	They can solve the design problems which is facing, and they can give new design which is appropriate.
Thermal Engineering -I Automobile Engineering Power Plant Engineering Computational Fluid Dynamics Lab Heat Transfer Lab Refrigeration & Air-Conditioning Heat Transfer Thermal Engineering Lab Thermal Engineering -Ii Fluid Mechanics & Hydraulic Machines Lab Fluid Mechanics & Hydraulic Machines	They can make new engines and new fuels	They can analysis the thermal properties and fluid flow in engines and boilers
Non Destructive Evaluation Unconventional Machining Processes Production Planning And Control Cad/Cam Lab Additive Manufacturing Advanced Materials Cad Cam Machine Tools Lab Metal Cutting & Machine Tools Production Technology Lab Production Technology Material Science & Metallurgy Industrial Engineering And Management	They can fabricate any type of machine parts	They can able to do machining and process planning for the production
Electrical & Electronics Engg. Lab Mechatronics Lab Mechatronics Socially Relevant Project	They can make electrical and automated vehicles	They can able to connect the circuits and program for vehicles automation

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Courses That Include Experiential Learning Through Project Work/Field work/Internship.

BRANCH : ECE

ACADEMIC YEAR : 2019 - 20

Courses That Include Experimential Learning Through Project Work	Project Domain	Justification
Switching Theory And Logic Design Electronic Devices And Circuits Switching Theory And Logic Design Signals And Systems Network Analysis Random Variables And Stochastic Processes	Application Development	Basic Knowledge Of Mathematics And Science Are Needed To Understand Any Engineering Problem
Electronic Devices And Circuits Lab Networks & Electrical Technology Lab Management Science Electronic Circuit Analysis Control Systems Electromagnetic Waves And Transmission Lines Analog Communications	Basic Projects With Controlling And Monitoring	Basic Electronics Fundamentals And Engineering Specializations Are Needed To Understand Any Engineering Problem
Pulse And Digital Circuits Electronic Circuit Analysis Lab Analog Communications Lab Linear I C Applications Digital I C Applications Digital Communications	Design Of Oscillators, Amplifiers Etc	Basics Of Electronics And Communications Domain To Be Applied For Circuit Designing.
Antenna And Wave Propagation Pulse And Digital Circuits Lab Linear I C Applications Lab Digital I C Applications Lab	Design Of Transmitters, Receivers, Filters Etc.	These Courses Help The Students To Apply The Knowledge Of Electronics And Communication To Advanced Concepts.
Micro Processors & Micro Controllers Micro Wave Engineering Vlsi Design Digital Signal Processing Micro Processors & Micro Controllers Lab Vlsi Lab Digital Communications Lab Bio-Medical Engineering Project	Real-Time Applications Involving Automation	These Courses Help The Students Understand The Necessary Hard Ware For Implementing Real-Time Tasks.
Digital Image Processing Radar Systems Optical Communication Microwave Engineering Lab Cellular Mobile Communications	Real-Time Analysis Of Environmental Based Applications	These Courses Help Students To Understand And Analyse The Surrounding Environmental Aspects.
Electronics Measurements And Instrumentation Embedded Systems Wireless Sensors & Networks Project & Seminar	Security, Automation, Realtime Behaviour Of Designed System	Helps Student To Design, Implement And Analyse Any Realtime Application With Electronics And Communication Concepts.

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Courses That Include Experiential Learning Through Project Work/Field work/Internship.

BRANCH : CSE

ACADEMIC YEAR : 2019 - 20

Courses That Include Experiential Learning Through Project Work	Project domain	Justification
Data Structures Through C++ Lab	Console Applications,	This courses gives the knowledge of mathematics, science, computer fundamentals to create the solution to complex real-world problems.
Advanced Data Structures Lab	Desktop Applications,	This courses gives the knowledge of mathematics, science, computer fundamentals to create the solution to complex real-world problems.
Compiler Design	Web Applications,	This courses provides knowledge to design solutions for complex problems and design software's or processes that meet the specified needs.
Unix Programming	Android Applications,	IT tools including prediction and modelling to complex problems with an understanding.
Unified Modelling Lab	Data Science Applications,	This courses provides knowledge to design and develop scientific applications.
Operating Systems and Linux Programming Lab	Data ware housing and Data Mining,	It demonstrate knowledge and understanding of project management and finance activities.
Dataware housing And Mining	Digital Image Processing,	This courses provides knowledge to design and develop scientific applications.
Design And Analysis Of Algorithms	Network Security	It demonstrate knowledge and understanding of project management and finance activities.
Software Testing Methodologies	Machine Learning	This courses provides knowledge to design and develop scientific applications.
Network Programming Lab	Deep Learning	This courses provides knowledge to design and develop scientific applications.
Data ware housing And Mining Lab	Data ware housing and Data Mining,	This courses gives the knowledge of mathematics, science, computer fundamentals to create the solution to complex real-world problems

Cryptography And Network Security	Data ware housing and Data Mining,	This courses provides knowledge to design and develop scientific applications.
Software Architecture &Design Pattern	Digital Image Processing,	It demonstrate knowledge and understanding of project management and finance activities.
Web Technologies	Network Security	This courses provides knowledge to design and develop scientific applications
Big Data Analytics	Machine Learning	IT tools including prediction and modelling to complex problems with an understanding.
Software Project Management	Deep Learning	It demonstrate knowledge and understanding of project management and finance activities.
Software Architecture & Design Pattern Lab	Data ware housing and Data Mining,	It demonstrate knowledge and understanding of project management and finance activities.
Web Technologies Lab	Desktop Applications,	This courses provides knowledge to design and develop scientific applications
Artificial Neural Networks	Web Applications,	This courses provides knowledge to design and develop scientific applications.
Seminar	Android Applications,	This courses gives the knowledge of mathematics, science, computer fundamentals to create the solution to complex real-world problems
Project	Machine Learning	This courses gives the knowledge of mathematics, science, computer fundamentals to create the solution to complex real-world problems

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Courses That Include Experiential Learning Through Project Work/Field work/Internship.

BRANCH :IT

ACADEMIC YEAR : 2019 – 20

Courses that include experimental learning through project work	Project domain	justification
Object Oriented Programming through C++ English-Communication Skills Lab-II Principles of software engineering Object Oriented Programming Through C++ Python Programming Lab Data Structures through C++ Lab Java Programming OperatingSystem Open Elective: Artificial Intelligence Mobile Computing Managerial Economics and Financial Analysis Elective – I: Big Data Analytics Elective -II: Machine Learning Mobile Computing Lab Distributed Systems Management Information System Seminar Project	Using these programming language have to develop software	Basic Knowledge on computer programming language are needed to understand and solve the programming problems
Database Management System Data Mining Lab Data Ware Housing and Business Intelligence	Oracle, SQL	Used to create and maintain Database
Cryptography and Network Security Cryptography and Network Security Lab Elective-III: Cyber Security	Information Security	Basics on cyber attacks and protocols that protect the data on the internet.
Web Technologies Web Technologies Lab	Web Engineering	Deals with developing websites, management, deployment and maintenance.
Software Testing Methodologies Software Testing Lab	Software Development and Testing	It focus on analysing the requirement of users to design deploy and test new software.
Probability and Statistics Theory of Computation	Mathematic Calculation	Use to develop mathematic models for computer problems.

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Courses That Include Experiential Learning through Project Work/Field work/Internship.

Name of the Program: MBA

ACADEMIC YEAR: 2019– 20

Courses that include experiential learning through project work	Project domain	Justification
Management And Organizational Behaviour	Strategic alternatives for corporate issues and suggest best strategy for solving business problems.	This course provides basic knowledge on management, communication, and specialized knowledge in all specializations.
Managerial Economics	Optimize economic decisions by using operations research, mathematical programming, strategic decision making, game theory and other computational methods	This course provides the knowledge to better se of economic modes of thoughts to analyze business situations.
Accounting For Managers	To acquaint the students with the fundamentals principles of financial, cost and management accounting	This course provides the knowledge of preparing, analyzing and interpreting financial statements
Quantitative Analysis For Business Decisions	Quantitative analysis is used to make purchasing decisions, marketing decisions, and even sales decisions.	This course provides the knowledge to use scientific approach and solves the management problems and to make best decisions.
Legal And Business Environment	Helps to handle legal contracts and agreements, To relate the impact of environment on business in an integrated manner	This course provides the knowledge about business laws and regulations, issues of domestic and global environment in which business has to operate
Business Communication And Soft Skills	Knowing how to present fresh ideas and cooperate with others can prove just as important as technical ability to your success in the workplace.	This course provides the knowledge to discover the means to cultivate the essential skills like leadership, communication, critical thinking, team work etc.
Cross Cultural Management	They will gain the analytical skills to map cultural differences and similarities and to diagnose their implications	The course takes a culture-general perspective: to learn systematic frameworks, analytical approaches, self-awareness, and behaviors that are related to effective interaction across cultures and in multicultural settings
Business Communication And Soft Skills Lab	Practically knowing how to present fresh ideas and cooperate with others can prove just as important as technical ability to your success in the workplace.	This course provides the knowledge to discover the means to cultivate the essential skills like team work, interpersonal skills, leadership, communication, critical thinking etc. practically.
INFORMATION TECHNOLOGY LAB -1(Spreadsheet And Tally)	This applications are dedicated to manage and process financial data in business	This course helps in maintaining accounts in manual books, we write accounting entries as debit and credit.
Financial Management	Finance management provides an	This course is beneficial as it

	opportunity to invest further and creating plans that are in-line with the long-term financial goals for their organization	involves management, control, and review of the collection, investment and resources of money as a capital required for an industrial building, plant, and management.
Human Resource Management	HRM within an organization primarily concerned with the recruitment of and management of the people who work for the organization.	This course provides direction for the people who work in an organization and also seek to aid in their satisfaction.
Business Research Methods	The concept of Scientific Research and the methods of conducting scientific enquiry and to know about the statistical tools of Data Analysis	This course helps the businesses to gain better insights about their target customer's preferences, buying patterns, pain points, as well as demographics
Lean Management	It seeks to eliminate any waste of time, effort or money by identifying each step in a business process and then revising or cutting out steps that do not create value	The primary purpose of lean management is to produce value for the customer through the optimization of resources and create a steady workflow based on real customer demands
IT Lab- 2 (Programming R)	Helps in analyzing large amounts of data quickly; it can produce business ready reports.	This course can help to minimize the risk in investing portfolios in practical.
Strategic Management	It develops the analytical capacity of the learner and equips them with skills such as market analysis and data collection	This course teaches how to treat the market in such a manner that sales and profit are churned out by the company.
Advertising And Brand Management	It provides knowledge about the theoretical concepts of the advertising, brand portfolio etc	This provides knowledge in planning and executing all consumer-facing communications, programs, and activations for a brand.

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