

**Student Exchange Opportunities @ MMDU Mullana-Ambala, India  
for January-May, 2023 Semester**

**List of Faculty and Subjects to be Offered in January- May, 2023 Semester**

<b>Faculty</b>	<b>Option Code</b>	<b>Name of Subjects Offered</b>
<b>Business Management (Under Graduate)</b>	<b>BBA - IV</b>	Entrepreneurship Development
		Human Resource Management
		Principles of Marketing
		Digital Marketing and Social Media
		E-Commerce
	<b>BBA - VI</b>	Distribution and Supply Management
		Leadership in Organisations
		Management Information systems
<b>Commerce (Under Graduate)</b>	<b>B Com - IV</b>	Banking and Insurance
		Fundamentals of Investment
		International Business
		Corporate Accounting
		Enhancement Elective
	<b>B. Com - VI</b>	Principles of Macro Economics
		Entrepreneurship
		Industrial Relations and Labour Laws
		Cost Accounting
		Dissertation
<b>Business Management (Post Graduate)</b>	<b>MBA - II</b>	Research Methodology
		Operations Research
		Business Analytics
		Financial Management
		Marketing Management
		Human Resource Management
		Production and Operations Management
		International Business
	<b>MBA - IV A</b>	Banking and Insurance
		Derivatives and Risk Management
		Marketing of Hospital Services
		Hospital Management and Law
		Customer Relationship Management
		Food & Beverage Management & Control
		Performance Management
		Learning and Development
	Multi Model Transport	
	<b>MBA - IV B</b>	International Trade Laws
		Database Design and Management
		Business Process Re-Engineering
		Integrated Marketing Communications
		Marketing of Services
		Management Information Systems
Procurement and Inventory Management		
Entrepreneurship		

<b>Computer Science &amp; Engineering (Under Graduate)</b>	<b>B. Tech. (Computer Science &amp; Engineering) - IV</b>	Operating Systems
		Linux Programming Lab
		Design and Analysis of Algorithms
		Design and Analysis of Algorithms Lab
		Computer Networks
		Computer Networks Lab
		Database Management System
		Database Management System Lab
		Agile Development
		Agile Development Lab
		Design Patterns Lab
	Data Analytics for IIOT	
	<b>B. Tech. (Computer Science &amp; Engineering with Specialization in Cloud Technology &amp; Information Security) - IV Cloud</b>	Operating Systems
		Linux Programming Lab
		Design and Analysis of Algorithms
		Design and Analysis of Algorithms Lab
		Computer Networks
		Computer Networks Lab
		Database Management System
		Database Management System Lab
		Cloud Computing Foundations
		Cloud Computing Foundations Lab
		Design Patterns Lab
	Data Analytics for IIOT	
	<b>B. Tech. (Computer Science &amp; Engineering with Specialization in Data Science) - IV Data</b>	Operating Systems
		Linux Programming Lab
		Design and Analysis of Algorithms
		Design and Analysis of Algorithms Lab
		Computer Networks
		Computer Networks Lab
		Database Management System
		Database Management System Lab
		Data Science Foundations
		Data Science Foundations Lab
		Design Patterns Lab
	Data Analytics for IIOT	
<b>B. Tech. (Computer Science &amp; Engineering) - VI</b>	Principle of Management	
	Formal Language & Automata Theory	
	Mobile Application Development	
	Mobile Application Development Lab	
	Advanced Java Programming/ Game Designing/ Robotic Process Automation Design & Development/ Net Technologies	
	Advanced Java Programming Lab/ Game Designing Lab/ Robotic Process Automation Design & Development Lab/ Net Technologies Lab	
	Disaster Management/ Operational Research/ Digital Image Processing/ Foreign Language/ Intellectual Property Rights	
	Data Analytics for IIOT	
	Integrated Project-I	

		Indian Constitution
		Universal Human Values
<b>B. Tech. (Computer Science &amp; Engineering with Specialization in Cloud Technology &amp; Information Security) - VI Cloud</b>		Principle of Management
		Formal Language & Automata Theory
		Digital Forensic
		Digital Forensic Lab
		Application Security/ Security Architecture/ Database Security
		Application Security Lab/ Security Architecture Lab/ Database Security Lab
		Disaster Management/ Operational Research/ Digital Image Processing/ Foreign Language/ Intellectual Property Rights
		Data Analytics for IIOT
		Integrated Project-I
		Indian Constitution
		Universal Human Values
<b>B. Tech. (Computer Science &amp; Engineering with Specialization in Data Science) - VI Data</b>		Principle of Management
		Formal Language & Automata Theory
		NOSQL Database
		NOSQL Database Lab
		Statistical Inference/ Time series Analysis/ Design and Analysis of Experiments
		Statistical Inference Lab/ Time series Analysis Lab/ Design and Analysis of Experiments Lab
		Disaster Management/ Operational Research/ Digital Image Processing/ Foreign Language/ Intellectual Property Rights
		Data Analytics for IIOT
		Integrated Project-I
		Indian Constitution
		Universal Human Values
<b>B. Tech. (Computer Science &amp; Engineering) - VIII (Non-Internship Based scheme)</b>		Distributed Operating System
		Real Time Systems/ Modeling & Simulation/ Soft Computing
		High Performance Computing/ Parallel & Distributed Computing/ Speech & Natural Language Processing
		Optimization Techniques/ Quantum Computing/ Statistical Modeling & Queuing Theory
<b>B. Tech. (Computer Science &amp; Engineering with Specialization in Cloud Technology &amp; Information Security) - VIII Cloud</b>		Hybrid Cloud Computing
		Server Security/ Mobile Wireless and VOIP Security
		Security Threats and Trends/ Artificial Neural Networks
		Infrastructure Containers/ Automation and configuration Management/ Infrastructure Automation
<b>B. Tech. (Computer Science &amp; Engineering with Specialization in Data Science) - VIII Data</b>		Dimension Reduction and Model Validation Techniques
		Social Media Analytics using R/ Predictive Analysis using Python/ Data Visualization Techniques
		Natural Language Processing/ Recommender System/ Information Security

		Pattern Recognition/ Reinforcement Learning/ Exploratory Data Analysis
<b>Mechanical Engineering (Under Graduate)</b>	<b>Mech. Engg. – IV</b>	Theory of Combustion and Emission
		Fluid Mechanics & Fluid Machines
		Mechatronics
		Industrial Automation and Robotics
		Kinematics & Theory of Machines
		Kinematics & Theory of Machines Lab
		Fluid Mechanics & Machine Lab
		Project-II (Non - Creditable)
		Mold Design & Manufacturing
	<b>Mech. Engg. - VI</b>	Computer Aided Design and Computer graphics
		Elective - III
		Elective - IV
		Humanities - II
		Open Elective - I
		Essence of Indian Traditional Knowledge
		Mold Design & Manufacturing
		Ansys Lab
		Project-IV
		Automobile Lab / Programing Lab
<b>Civil Engineering (Under Graduate)</b>	<b>Civil Engg. – IV</b>	Design of RCC Structures
		Hydrology
		Environmental Engineering
		Civil Engineering – Societal & Global Impact (Humanities - I)
		Materials, Testing & Evaluation (Elective-I)
		Building Construction Practice (Elective-I)
		Ecological Engineering (Elective-I)
		Air & Noise Pollution and Control (Elective-I)
		Groundwater Engineering (Elective-I)
		Concrete Technology Lab
		Structural Mechanics Lab
		Building Construction Drawing
		Project- I
		Universal Human Values
	<b>Civil Engg. – VI</b>	Hydrology & Water Resource Engineering
		Design of Steel Structures
		Traffic Engineering and Management (Elective - IV)
		Pavement Construction and Management (Elective - IV)
		Environmental Impact Assessment and Life Cycle Analyses (Elective - IV)
		Rock Mechanics (Elective - IV)
		Ground Improvement Technique (Elective - IV)
		Planning for Sustainable Development (Open Elective - II)
		Rural Technology and Community Development (Open Elective - III)
Project - III		
Essence of Indian Traditional Knowledge		

		Seminar
		Computer-aided - Civil Engineering Design
	<b>Civil Engg. – VIII</b>	Airport Planning and Design
		Bridge Engineering
		Pavement Design (Elective - VII)
		Railway Engineering (Elective - VII)
		River Engineering (Elective - VII)
		Environmental Fluid Mechanics (Elective - VII)
		Prestressed Concrete (Elective - VII)
		Public Transportation Systems (Elective - VIII)
		Open Channel Flow (Elective - VIII)
		Surface Hydrology (Elective - VIII)
		Structural Dynamics (Elective - VIII)
		Geotechnical Design (Elective - VIII)
		Construction Engineering & Management (Elective - IX)
		Transport of Water and Wastewater (Elective - IX)
		Design of Concrete Structures-II (Elective - IX)
	Structural Engineering (Elective - IX)	
	Soil Mechanics-II (Elective - IX)	
<b>Electronics &amp; Communication Engineering (Under Graduate)</b>	<b>ECE – IV</b>	Signals and Systems
		Digital System Design
		Computer Organization and Architecture
		Probability Theory & Stochastic Processes
		Universal Human Values
		Essence of Indian Traditional Knowledge
		Digital System Design Lab
		Data Analytics for IIOT
	<b>ECE- VI</b>	Control Systems
		Computer Network
		Program Elective - 2: Power Electronics
		Measurements and Instrumentation
		Principles of Management
		Computer Networks Lab
	Electronic Measurement Lab	
	Data Analytics for IIOT	
<b>Electrical Engineering (Under Graduate)</b>	<b>Elec. Engg. – IV</b>	Digital Electronics
		Signals and Systems
		Electrical Machines – II
		Power Electronics
		Essence of Indian Traditional Knowledge
		Universal Human Values
		Digital Electronics Lab
		Electrical Machines Lab – II
		Power Electronics Lab
		Project-I
		Data Analytics for IOT
	<b>Elec. Engg – VI</b>	Control Systems
		Power Systems - II (Operation and Control)
		Program Elective - 2: Measurements and

		Instrumentation
		Program Elective - 3: Electric Drives
		Open Elective- 2: Computer Network
		Principle of Management
		Control Systems Lab
		Measurements and Instrumentation Lab
		Project - III
		Data Analytics for IOT
<b>Bio Technology (Under Graduate)</b>	<b>BioTech - IV</b>	Molecular Biology
		Immunology
		Bio Analytical Techniques
		Industrial Microbiology (P)
		Indian Constitution
		Molecular Biology Practical
		Industrial Microbiology (P)
	<b>BioTech - VI</b>	Immunology practical
		Biostatistics & Computer Application
		Fermentation Technology
		Plant Biotechnology
		Plant Tissue Culture laboratory
		Elective - II
		IPR, Biosafety and Bioethics
Bio-Entrepreneurship		
Essentials of Information Technology II		
Essential of IT - II Practical		
<b>Computer Applications (Under Graduate)</b>	<b>Comp. Applications – IV</b>	Programming in Java
		Open Source Programming using PHP
		Operating System
		Software Engineering
		Disaster Management
		Programming in Java Lab
		Open Source Programming Lab using PHP
		Seminar - II
	<b>Comp. Applications – VI</b>	Project - II
		R Programming
		Web Technologies
		Cyber Security
		Cloud Computing / Internet of Things
		Design of Analysis & Algorithm/ Artificial Intelligence
R Programming Lab		
Web Technologies Lab		
Project - III		
<b>Computer Applications (Post Graduate)</b>	<b>Comp. Applications – II</b>	Object Oriented Programming using Java
		Web Technologies
		Data Communication & Networking
		Software Testing and Quality Assurance
		Digital Marketing
		Object Oriented Programming using Java Lab
Web Technologies Lab		

		Project - I
		Logical Organization of Computers
		Fundamentals of Mathematics
<b>Hotel Management (Under Graduate)</b>	<b>Hotel Mgmt. – BHMCT II</b>	Food Production Foundation - II
		Food & Beverage Service Foundation - II
		Accommodation & Front Office Operations Foundations - II
		Communication Skills
		Basics of Tourism
		Basics of Nutrition
	<b>Hotel Mgmt. – BHMCT VI</b>	Researching for Hospitality & Tourism Management
		Regional Cuisines of India - II
		Food & Beverage Service Management - II
		Accommodation Management - II
		Kitchen Management
		Entrepreneurship Development
	<b>Hotel Mgmt. – B Sc HHA II</b>	Food Production Foundation - II
		Food & Beverage Service Foundation - II
		Accommodation & Front Office Operations Foundations - II
		Applications of Computers in H&T
		English
	<b>Hotel Mgmt. – B Sc HHA IV</b>	Introduction to Indian Cookery
		Food & Beverage Service Operations
		Accommodation & Front Office Operations
		Accounting Skills for Hospitality
		Principles of Baking
		Basics of Food Science
	<b>Hotel Mgmt. – Diploma in Food Production II</b>	Indian Cookery - II
		Cold Kitchen - II
		Kitchen Management
		Basics of Nutrition
		Advanced Communication Skills
	<b>Hotel Mgmt. – Diploma in Bakery &amp; Confectionary II</b>	Advance Confectionary
Chocolate and Sugar Cookery		
Kitchen Management		
Basics of Nutrition		
Advance Communication Skills		
<b>Hotel Mgmt. – Diploma in Airlines &amp; Tourism Management II</b>	Automation in Tourism Industry, Airline & Hospitality	
	Travel Agency & Tour Operations	
	Foundation course in Food & Beverage Service Operations	
	Tourism Products of India	
	Tourism Planning & Policy	
	Safety Security & Travel Documentation	
	Advance Communication Skills	
<b>BSc (Honours) Food Science with specialisation in Nutrition &amp; Dietetics (Under Graduate)</b>	<b>Nutrition &amp; Dietetics - BFS(ND) II</b>	Basics of Biochemistry
		Basics of Sensory Evaluation of Food
		Basics of Food Quality Management
		Environment Studies

		English
	<b>Nutrition &amp; Dietetics - BFS(ND) IV</b>	Therapeutic Nutrition & Dietetics - I
		Food Microbiology
		Institutional Food Management
		Human Anatomy & Physiology
	<b>Nutrition &amp; Dietetics - BFS(ND) VI</b>	Public Health & Nutrition - II
		Patient Counselling
		Food Quality Management
		Food Service Management
<b>BSc (Honours) Food Science with specialization in Food Science &amp; Technology (Under Graduate)</b>	<b>Food Science &amp; Technology - BFS(FT) II</b>	Basics of Biochemistry
		Basics of Sensory evaluation of Food
		Basics of Food Quality Management
		Environment Studies
		English
	<b>Food Science &amp; Technology- BFS(FT) IV</b>	Technology of Cereals, Pulses and Oilseeds
		Food Microbiology
		Technology of Meat, Fish and Poultry
		Food Analysis and Instrumentation
	<b>Food Science &amp; Technology - BFS(FT) VI</b>	Food Chemistry - II
		Food Quality and Sensory Evaluation
		Food Quality Management
New Product Development		
<b>MSc in Nutrition &amp; Dietetics (Post Graduate)</b>	<b>M. Sc in Nutrition &amp; Dietetics - II</b>	Clinical and Therapeutic Nutrition - I
		Human Nutrition - II
		Community Nutrition - I
		Food Analysis
		Food Service Management
		Food Microbiology
		Research Methodology
<b>Law (Under Graduate)</b>	<b>Law (BA. - LL.B) - IV</b>	Political Science - IV (Indian Political Thought)
		Citizen & the Law/Indian language - Hindi II
		Constitutional Law - II
		Law of Crimes - II (Criminal Procedure Code)
		Family Law
	<b>Law (BA. - LL.B) - VI</b>	Political Science - VI (Public Administration in India)
		Sociology - I
		Administrative Law
		Public International Law
		Civil Procedure Code-II and Limitation Law
		Property Law
	<b>Law (BA. - LL.B) - VIII</b>	Sociology - III
		International Organization
		Company Law
		Women & Law/ Prison Administration
		Criminology and Penology/ Human Rights Law and Practice
		Moot Court Exercises and Internship (Practical/Clinical Course - II)
	<b>Law (BA. - LL.B) - X</b>	Principles of Taxation Law

		Land Laws including Tenure and Tenancy
		Intellectual Property Right (General)
		Equity, Trust and Fiduciary Relationships/ Forensic Science
		Legal Profession & Ethics (Practical/Clinical Course- IV)
<b>Physiotherapy (Under Graduate)</b>	<b>Physiotherapy - II</b>	Human Anatomy - II
		Human Anatomy Practical-II
		Human Physiology - II
		Human Physiology Practical - II
		General and Clinical Psychology
		Basic Principles in Biomechanics
		Environmental Science
		Medical Terminology and Record Keeping
		Clinical Observation
	<b>Physiotherapy - IV</b>	Exercise - ii Therapy
		Exercise - ii Therapy Practical
		Electro Therapy
		Electro Therapy Practical
		Yoga
		Yoga Practical
		Physiotherapy Law and Ethics
		Clinical Education
	<b>Physiotherapy - VI</b>	Physiotherapy in Musculoskeletal and Sports Conditions
		Physiotherapy in Musculoskeletal and Sports Conditions Practical
		Physiotherapy in General Medicine and Surgery
		Physiotherapy in General Medicine and Surgery Practical
		Clinical Neurology and Neurosurgery
		Research Methodology and Bio-statistics
		Clinical Education
	<b>Physiotherapy - IV Year</b>	Physiotherapy in Musculoskeletal and Sports Conditions
		Physiotherapy in Neurological Conditions (Adult and Pediatric)
		Physiotherapy in Gynaecology & Obstetrics and Surgical Conditions
		Physiotherapy in Medicine and Cardiothoracic Conditions
Rehabilitation		
Project Work		
<b>Agriculture (Under Graduate)</b>	<b>Agriculture - II</b>	Fundamentals of Crop Physiology
		Agricultural Microbiology
		Fundamentals of Plant Pathology
		Fundamentals of Agricultural Economics
		Fundamentals of Agricultural Economics
		Information & Communication Technology
		Fundamentals of Entomology
		Fundamentals of Agricultural Extension Education
		Information & Communication Technology

	<b>Agriculture - IV</b>	Crop Production Technology - II (Rabi Crops)
		Production Technology for Ornamental Crops, MAP and Landscaping
		Renewable Energy and Green Technology
		Problematic Soils and their Management
		Production Technology for Fruit and Plantation Crops
		Principles of Seed Technology
		Farming System & Sustainable Agriculture
		Agricultural Marketing Trade & Prices
		Introductory Agro-meteorology & Climate Change
		Elective Course (Protected Cultivation)
		<b>Agriculture - VI</b>
	Protected Cultivation and Secondary Agriculture	
	Diseases of Field and Horticultural Crops and their Management - II	
	Post-harvest Management and Value Addition of Fruits and Vegetables	
	Management of Beneficial Insects	
	Crop Improvement - II (Rabi Crops)	
	Practical Crop Production –II (Rabi Crops)	
	Principles of Organic Farming	
	Farm Management, Production & Resource Economics	
	Principles of Food Science and Nutrition	
	Elective Course: Biopesticides & Biofertilizers	
	<b>Agriculture - VIII (Students will be allowed to opt any of two modules)</b>	Production Technology for Bioagents and Biofertilizers
		Seed Production and Technology
		Mushroom Cultivation Technology
		Soil, Plant, Water and Seed Testing
		Commercial Beekeeping
		Poultry Production Technology
		Commercial Horticulture
		Floriculture and Landscaping
		Food Processing
		Agriculture Waste Management
<b>Agriculture (Post Graduate)</b>	<b>M. Sc Agronomy - II</b>	Organic Production Technology
		Fisheries
		Soil Fertility and Fertilizer Use
		Soil Erosion and Conservation
		Statistical Methods for Applied Sciences
		Human Value and Ethics (Non credit course)
<b>Sciences- Physics (Post Graduate)</b>	<b>Physics - II</b>	Electrodynamics
		Mathematical Physics II
		Quantum Physics-II
		Nuclear and Particle Physics
		N Electronics-II
	<b>Physics - IV</b>	Statistical Physics & Thermodynamics
		Condensed Matter Physics-II
		Physics of Nano-Materials

		Advanced Electronics
		Experimental Techniques in Radiation Physics
<b>Sciences- Chemistry (Post Graduate)</b>	<b>Chemistry - II</b>	Inorganic Chemistry-II
		Organic Chemistry-II
		Physical Chemistry-II
		Spectroscopy and its applications in Organic Chemistry
		Inorganic Chemistry Practical - II
		Organic Chemistry Practical - II
		Physical Chemistry Practical - II
	<b>Chemistry - IV</b>	Analytical Techniques
		Application of Computers in Chemical Analysis
		Inorganic/ Organic/ Physical Chemistry
		Inorganic/ Organic/ Physical Chemistry
		Applications of Computers in Chemistry - Lab
		Project (Minor)
		Practical Elective I - Inorganic/Organic/ Physical Chemistry
Practical Elective II - Inorganic/Organic/ Physical Chemistry		
<b>Sciences- Mathematics (Post Graduate)</b>	<b>Maths - II</b>	Measure theory and Integration
		Differential Geometry
		Partial Differential Equations
		Discrete Mathematics
		Analytical Mechanics & Variational Methods
		Latex (LAB)
		Seminar
<b>Sciences- Bio Technology (Post Graduate)</b>	<b>BioTech - II</b>	Transgenic Animal & Plant Biotechnology
		Tissue Culture Techniques Practical
		Concept in Pharmaceutical science
		Proteomics & Genomics
		Elective - II
		Project Course
<b>Sciences- Microbiology (Post Graduate)</b>	<b>Micro Biology - II</b>	Medical Microbiology
		Immunology
		Elements of Molecular Biology
		Microbial Genetics
		Elective - I
		Lab course based on Medical Microbiology & Immunology
		Lab course based on Molecular Biology & Microbial Genetics
<b>Sciences- Botany (Post Graduate)</b>	<b>Botany - II</b>	Bryophytes, Pteridophytes and Gymnosperms
		Biostatistics
		Plant Physiology
		Biochemistry and Metabolism
		Cytogenetics and Plant Breeding
		Bryophytes, Pteridophytes and Gymnosperm Practical
		Plant Physiology and Biochemistry Practical