

# **SAVITRIBAI PHULE PUNE UNIVERSITY**

**(Formerly University of Pune)**



**EXAMINATION CIRCULAR NO. 134 OF. 2024**

**THIRD YEAR ENGINEERING (2019 PATTERN)**

**Endsem Examination of March / April - 2024**

**(Under Faculty of SCIENCE AND TECHNOLOGY: B)ENGINEERING)**

## **INSTRUCTIONS FOR CANDIDATES**

- Candidates are required to be present at the examination centre, THIRTY MINUTES before the stipulated time.
- Candidates are forbidden from taking any material into the examination hall that can be treated as a malpractice.
- Candidates are requested to see the Notice Board at their center of examination regularly for changes if any that may be notified later in the program.
- No request shall be granted for change in time or date for the University Examination on any ground.
- Candidates are requested to note the Day, Date and Time of Paper.
- Candidates are permitted to use stencils at the time of examination.
- The exchanges of side-rules, drawing instruments of other materials used in the examination hall is not permitted at the time of examination. Candidates must bring their own instruments and will not be allowed to borrow from each other under any circumstances.
- Use of non-programmable battery operated electronic pocket size Calculator is allowed. The exchange of Calculators is not allowed. Electronics Devices including mobile are not allowed at the time of examination.
- The written examination will be conducted in the following order.

## CIVIL ENGINEERING

### SEM-I

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Thursday 16-05-2024	Hydrology and Water Resources Engineering (301001)
Saturday 18-05-2024	Water Supply Engineering (301002)
Wednesday 22-05-2024	Design of Steel Structures (301003) # (Time : 10:00 AM To 01:00 PM)
Saturday 25-05-2024	Engineering Economics and Financial Management (301004)
Tuesday 28-05-2024	<b>ELECTIVE-I</b> Advanced Fluid Mechanics and Hydraulic Machines (301005 a)
	<b>ELECTIVE-I</b> Research Methodology and IPR (301005 b)
	<b>ELECTIVE-I</b> Construction Management. (301005 c)
	<b>ELECTIVE-I</b> Advanced Concrete Technology (301005 d)
	<b>ELECTIVE-I</b> Matrix Methods of Structural Analysis (301005 e)
	<b>ELECTIVE-I</b> Advanced Mechanics of Structures (301005 f)

**Note : - # Please Note the time**

### SEM-II

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Wednesday 15-05-2024	Waste Water Engineering ( 301012)
Friday 17-05-2024	Design of RC Structures (301013) # (Time : 10:00 AM To 01:00 PM)
Tuesday 21-05-2024	Remote Sensing and GIS (301014)
Friday 24-05-2024	<b>ELECTIVE-II</b> Advanced Engineering Geology with Rock Mechanics (301015 a)
	<b>ELECTIVE-II</b> Soft Computing Techniques (301015 b)
	<b>ELECTIVE-II</b> Advanced Surveying. (301015 c)
	<b>ELECTIVE-II</b> Advanced Geotechnical Engineering (301015 d)
	<b>ELECTIVE-II</b> Architecture and Town Planning (301015 e)
	<b>ELECTIVE-II</b> Solid Waste Management (301015 f)

**Note : - # Please Note the time**

## CHEMICAL ENGINEERING

### SEM-I

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Thursday 16-05-2024	Mass Transfer-I (309341)
Saturday 18-05-2024	Chemical Technology -II (309342)
Wednesday 22-05-2024	Chemical Engineering Mathematics (309343)
Saturday 25-05-2024	Chemical Engineering Thermodynamics (309344)
Tuesday 28-05-2024	<b>ELECTIVE-I</b> Chemical Industry Management (309345A)
	<b>ELECTIVE-I</b> Food Technology (309345 B)
	<b>ELECTIVE-I</b> Polymer Engineering (309345 C)
	<b>ELECTIVE-I</b> Downstream Processing (309345 D)

### SEM-II

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Wednesday 15-05-2024	Chemical Reaction Engineering I (309348)
Friday 17-05-2024	Mass Transfer II (309349)
Tuesday 21-05-2024	Transport Phenomena (309350)
Friday 24-05-2024	<b>ELECTIVE-II</b> Energy Conservation in Chemical Process Industries (309351 A)
	<b>ELECTIVE-II</b> Process Instrumentation and Control (309351 B)
	<b>ELECTIVE-II</b> Corrosion Engineering (309351 C)
	<b>ELECTIVE-II</b> Artificial intelligence and Data Science (309351 D)

## COMPUTER ENGINEERING

### SEM-I

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Thursday 16-05-2024	Database Management Systems (310241) *
Saturday 18-05-2024	Theory of Computation (310242)
Wednesday 22-05-2024	Systems Programming and Operating System (310243)
Saturday 25-05-2024	Computer Networks and Security (310244)
Tuesday 28-05-2024	<b>ELECTIVE-I</b> Internet of Things and Embedded Systems (310245 A)
	<b>ELECTIVE-I</b> Human Computer Interface (310245 B) *
	<b>ELECTIVE-I</b> Distributed Systems (310245 C)
	<b>ELECTIVE-I</b> Software Project Management (310245 D)

**Note :-** \* Common with A.I.D.S.

### SEM-II

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Wednesday 15-05-2024	Data Science and Big Data Analytics (310251)
Friday 17-05-2024	Web Technology (310252)
Tuesday 21-05-2024	Artificial Intelligence (310253)
Friday 24-05-2024	<b>ELECTIVE-II</b> Information Security (310254 A)
	<b>ELECTIVE-II</b> Augmented and Virtual Reality (310254 B)
	<b>ELECTIVE-II</b> Cloud Computing (310254 C) *
	<b>ELECTIVE-II</b> Software Modeling and Architectures (310254 D)*

**Note :-** \* Common with A.I.D.S.

# Artificial Intelligence and Data Science Engineering

## SEM-I

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Thursday 16-05-2024	Data Base Management System (310241) *
Saturday 18-05-2024	Computer Networks (317521)
Wednesday 22-05-2024	Web Technology (310252)
Saturday 25-05-2024	Artificial Intelligence (310253)
Tuesday 28-05-2024	ELECTIVE-I Embedded Systems & Security (317522 A)
	ELECTIVE-I Design Thinking (314445 C) **
	ELECTIVE-I Pattern Recognition (317522 B)
	ELECTIVE-I Human Computer Interface (310245 B) *

Note :- \* **Common with Computer Engineering**  
\*\* **Common with Information Technology**

## SEM-II

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Wednesday 15-05-2024	Data Science (317529)
Friday 17-05-2024	Cyber security (317530)
Tuesday 21-05-2024	Artificial Neural Network (317531)
Friday 24-05-2024	ELECTIVE-II Robotics and Automation (317532 A)
	ELECTIVE-II Natural Language Processing (317532B)
	ELECTIVE-II Cloud Computing (310254 C) *
	ELECTIVE-II Software Modeling and Architecture (310254 D)*

Note :- \* **Common with Computer Engineering**

# ELECTRICAL ENGINEERING

## SEM-I

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Thursday 16-05-2024	Industrial and Technology Management (303141)
Saturday 18-05-2024	Power Electronics (303142)
Wednesday 22-05-2024	Electrical Machines-II (303143)
Saturday 25-05-2024	Electrical Installation Design and Condition Based Maintenance (303144)
Tuesday 28-05-2024	<b>ELECTIVE-I</b> Advanced Microcontroller and Embedded System (303145 A)
	<b>ELECTIVE-I</b> Digital Signal Processing (303145 B)
	<b>ELECTIVE-I</b> Open Elective (303145 C)

## SEM-II

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Wednesday 15-05-2024	Power System-II (303148)
Friday 17-05-2024	Computer Aided Design of Electrical Machines (303149)
Tuesday 21-05-2024	Control System Engineering (303150)
Friday 24-05-2024	<b>ELECTIVE-II</b> IoT and its Applications in Electrical Engineering (303151 A)
	<b>ELECTIVE-II</b> Electrical Mobility (303151 B)
	<b>ELECTIVE-II</b> Cybernetic Engineering (303151 C)
	<b>ELECTIVE-II</b> Energy Management (303151 D)

# ELECTRONICS ENGINEERING

## SEM-I

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Thursday 16-05-2024	Power and Industrial Electronics (304201)
Saturday 18-05-2024	Electromagnetic Waves and Propagation Theory (304202)
Wednesday 22-05-2024	Database Management (304183) *
Saturday 25-05-2024	Microcontrollers and Applications (304204)
Tuesday 28-05-2024	<b>ELECTIVE-I</b> Instrumentation systems (304205 )
	<b>ELECTIVE-I</b> Machine Learning (304205 )
	<b>ELECTIVE-I</b> Fundamentals of JAVA Programming (304185) *
	<b>ELECTIVE-I</b> Data Communication (304205 )
	<b>ELECTIVE-I</b> Computer Networks (304205 )
<b>Note :-</b> * Common with E&TC	

## SEM-II

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Wednesday 15-05-2024	Fundamentals of HDL (304212)
Friday 17-05-2024	Embedded Processors and Applications (304213)
Tuesday 21-05-2024	Industrial Management (304214)
Friday 24-05-2024	<b>ELECTIVE-II</b> PLC & Automation (304215 )
	<b>ELECTIVE-II</b> Advanced JAVA Programming (304195) *
	<b>ELECTIVE-II</b> Digital Signal Processing (304215 )
	<b>ELECTIVE-II</b> Fiber Optic Communication (304215 )
	<b>ELECTIVE-II</b> e Mobility (304215 )

Note : \*Common with E&TC

## ELECTRONICS & TELECOMMUNICATION ENGINEERING

### SEM-I

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Thursday 16-05-2024	Digital Communication (304181)
Saturday 18-05-2024	Electromagnetic Field Theory (304182)
Wednesday 22-05-2024	Database Management (304183) *
Saturday 25-05-2024	Microcontrollers (304184)
Tuesday 28-05-2024	<b>ELECTIVE-I</b> Digital Signal Processing (304185 )
	<b>ELECTIVE-I</b> Electronic Measurements (304185 )
	<b>ELECTIVE-I</b> Fundamentals of JAVA Programming (304185 ) *
	<b>ELECTIVE-I</b> Computer Networks (304185 )
<b>Note :-</b> * Common with Electronics	

### SEM-II

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Wednesday 15-05-2024	Cellular Networks (304192)
Friday 17-05-2024	Project Management (304193)
Tuesday 21-05-2024	Power Devices & Circuits (304194)
Friday 24-05-2024	<b>ELECTIVE-II</b> Digital Image Processing (304195)
	<b>ELECTIVE-II</b> Sensors in Automation (304195 )
	<b>ELECTIVE-II</b> Advanced JAVA Programming (304195) *
	<b>ELECTIVE-II</b> Embedded Processors (304195 )
	<b>ELECTIVE-II</b> Network Security (304195)
<b>Note :-</b> * Common with Electronics	



# Electronics and Computer Engineering

## SEM-I

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Thursday 16-05-2024	Database Management Systems (310341)
Saturday 18-05-2024	Advanced Java Programming (310342)
Wednesday 22-05-2024	Data Communication (310343)
Saturday 25-05-2024	Microcontroller and Applications (310344)
Tuesday 28-05-2024	ELECTIVE-I Distributed Systems (310345 A)
	ELECTIVE-I Block Chain Technology (310345 B)
	ELECTIVE-I Digital Signal Processing (310345 C)
	ELECTIVE-I Sensors and Applications (310345 D)

## SEM-II

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Wednesday 15-05-2024	Software Engineering and Project Management (310352)
Friday 17-05-2024	Computer Networks and Security (310353)
Tuesday 21-05-2024	Embedded Processors & Applications (310354)
Friday 24-05-2024	ELECTIVE-II Software Modeling and Design (310355 A)
	ELECTIVE-II Advanced Database Management Systems (310355 B)
	ELECTIVE-II Power Electronics (310355 C)
	ELECTIVE-II PLC and Automation (310355 D)

# INFORMATION TECHNOLOGY ENGINEERING

## SEM-I

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Thursday 16-05-2024	Theory of Computation (314441)
Saturday 18-05-2024	Operating Systems (314442)
Wednesday 22-05-2024	Machine Learning (314443)
Saturday 25-05-2024	Human Computer Interaction (314444)
Tuesday 28-05-2024	<b>ELECTIVE-I</b> Design and Analysis of Algorithm (314445 A)
	<b>ELECTIVE-I</b> Advanced Database and Management System (314445 B)
	<b>ELECTIVE-I</b> Design Thinking (314445 C) *
	<b>ELECTIVE-I</b> Internet of Things (314445 D)

\* Common with A.I.D.S.

## SEM-II

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Wednesday 15-05-2024	Computer Networks & Security (314451)
Friday 17-05-2024	Data Science and Big Data Analytics (314452)
Tuesday 21-05-2024	Web Application Development (314453A)
Friday 24-05-2024	<b>ELECTIVE-II</b> Artificial Intelligence (314454 A)
	<b>ELECTIVE-II</b> Cyber Security (314454 B)
	<b>ELECTIVE-II</b> Cloud Computing (314454 C)
	<b>ELECTIVE-II</b> Software Modeling and Design (314454 D)

## INSTRUMENTATION & CONTROL ENGINEERING

### SEM-I

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Thursday 16-05-2024	Embedded Systems (306261)
Saturday 18-05-2024	Industrial Automation-I (306262)
Wednesday 22-05-2024	Modern Control Theory (306263)
Saturday 25-05-2024	Operating System (306264)
Tuesday 28-05-2024	<b>ELECTIVE-I</b> Mechatronics & Robotics (306265 A)
	<b>ELECTIVE-I</b> Data Science (306265 B)
	<b>ELECTIVE-I</b> Power Electronics (306265 C)
	<b>ELECTIVE-I</b> Bio-Medical Instrumentation (306265 D)

### SEM-II

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Wednesday 15-05-2024	Internet of Things (306268)
Friday 17-05-2024	Industrial Automation-II (306269)
Tuesday 21-05-2024	Digital Signal Processing (306270)
Friday 24-05-2024	<b>ELECTIVE-II</b> Building Automation (306271 A)
	<b>ELECTIVE-II</b> Machine Learning (306271 B)
	<b>ELECTIVE-II</b> Electrical Drives (306271 C)
	<b>ELECTIVE-II</b> Analytical Instrumentation (306271 D)

# AUTOMOBILE ENGINEERING

## SEM-I

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Thursday 16-05-2024	Numerical & Optimization Methods (316481)
Saturday 18-05-2024	Heat Transfer (316482)
Wednesday 22-05-2024	Design of Machine Components (316483)
Saturday 25-05-2024	Automobile Electrical and Electronics (316484)
Tuesday 28-05-2024	<b>ELECTIVE-I</b> Advanced Forming & Joining Processes (302045-A)*
	<b>ELECTIVE-I</b> Machining Science and Technology (302045-B)*

Note :- \* Common with Mechanical

## SEM-II

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Wednesday 15-05-2024	Automotive Refrigeration and Air Conditioning (316485)
Friday 17-05-2024	Automotive Chassis and Transmission (316486)
Tuesday 21-05-2024	Design of Engine Components (316487)
Friday 24-05-2024	<b>ELECTIVE-II</b> Automotive Aerodynamics and Body Engineering (316488-A)
	<b>ELECTIVE-II</b> Automotive Materials (316488-B)

# MECHANICAL ENGINEERING

## SEM-I

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Thursday 16-05-2024	Numerical & Statistical Methods (302041) *
Saturday 18-05-2024	Heat & Mass Transfer (302042) *
Wednesday 22-05-2024	Design of Machine Elements (302043) *
Saturday 25-05-2024	Mechatronics (302044) *
Tuesday 28-05-2024	<b>ELECTIVE-I</b> Advanced Forming & Joining Processes (302045-A) **
	<b>ELECTIVE-I</b> Machining Science & Technology (302045-B) **

NOTE:- \* *Common to Mechanical Sandwich Engineering*  
\*\* *Common to Automobile Engineering*

## SEM-II

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Wednesday 15-05-2024	Artificial Intelligence & Machine Learning (302049)
Friday 17-05-2024	Computer Aided Engineering (302050)
Tuesday 21-05-2024	Design of Transmission Systems (302051) # (Time : 10:00 AM To 01:00 PM)
Friday 24-05-2024	<b>ELECTIVE-II</b> Composite Materials (302052-A)
	<b>ELECTIVE-II</b> Surface Engineering (302052-B)

**Note : - # Please Note the time**

## MECHANICAL-SANDWICH ENGINEERING

### SEM-I

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Thursday 16-05-2024	Numerical & Statistical Methods (302041) *
Saturday 18-05-2024	Heat & Mass Transfer (302042) *
Wednesday 22-05-2024	Design of Machine Elements (302043) *
Saturday 25-05-2024	Mechatronics (302044) *
Tuesday 28-05-2024	Fundamentals of Computer Aided Engineering (302061)

NOTE:- \* *Common to Mechanical Engineering*

### SEM-II

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Wednesday 15-05-2024	Process Planning & Tool Selection (Self-Study-I) (302066)
Friday 17-05-2024	Advanced Materials & Manufacturing (Self-Study-II) (302067)

# Automation and Robotics Engineering

## SEM-I

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Thursday 16-05-2024	Design of Robot Elements (302521 )
Saturday 18-05-2024	Robot Kinematics and Dynamics (302522 )
Wednesday 22-05-2024	Computer Aided Engineering and Manufacturing (302523 )
Saturday 25-05-2024	Signal Processing and Conditioning (302524 )
Tuesday 28-05-2024	<b>ELECTIVE-I</b> Advanced Forming & Joining Processes (302525-A )
	<b>ELECTIVE-I</b> Optimization Techniques (302525-B)

## SEM-II

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Wednesday 15-05-2024	Sensors and Vision Systems in Robots (302527 )
Friday 17-05-2024	Artificial Intelligence in Robots (302528 )
Tuesday 21-05-2024	Modelling and Simulation (302529 )
Friday 24-05-2024	<b>ELECTIVE-II</b> Machining Science and Technology ( 302530-A )
	<b>ELECTIVE-II</b> Maintenance and Safety Engineering ( 302530-B)

# B. Tech. Biotechnology Engineering

## SEM-I

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Thursday 16-05-2024	Analytical Techniques (315461)
Saturday 18-05-2024	Material Balances and Stoichiometry (315462)
Wednesday 22-05-2024	Genetic Engineering (315463)
Saturday 25-05-2024	Introduction to Immunology (315464)
Tuesday 28-05-2024	<b>ELECTIVE-I</b> Enzyme Technology (315465 A)
	<b>ELECTIVE-I</b> Good Laboratory Practices and Good Manufacturing Practices (315465 B)
	<b>ELECTIVE-I</b> Agricultural Biotechnology (315465 C )

## SEM-II

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Wednesday 15-05-2024	Fermentation Technology (315471)
Friday 17-05-2024	Mass Transfer (315472)
Tuesday 21-05-2024	Bioseparation Engineering (315473)
Friday 24-05-2024	<b>ELECTIVE-II</b> Instrumentation and Process Control (315474 A)
	<b>ELECTIVE-II</b> Food Biotechnology (315474 B)
	<b>ELECTIVE-II</b> Data base management systems (315474 C)



# Printing Engineering

## SEM-I

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Thursday 16-05-2024	Print Statistics (308281)
Saturday 18-05-2024	Offset Printing Techniques (308282)
Wednesday 22-05-2024	Color Science and Measurement (308283)
Saturday 25-05-2024	Ink Technology (308284)
Tuesday 28-05-2024	<b>ELECTIVE-I</b> Cyber Security (308286 A)
	<b>ELECTIVE-I</b> Wood, Glass and Metal Based Packaging (308286 B)
	<b>ELECTIVE-I</b> Engineering Ethics (308286 C )

## SEM-II

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Wednesday 15-05-2024	Flexo Printing Techniques (308289)
Friday 17-05-2024	Color Management (308290)
Tuesday 21-05-2024	Design of Experiments (308291)
Friday 24-05-2024	<b>ELECTIVE-II</b> Maintenance Management of Printing Machines (308293 A)
	<b>ELECTIVE-II</b> Basic Communication Systems and Electronic Instrumentation (308293 B)
	<b>ELECTIVE-II</b> E-Publishing (308293 C)

# Production Engineering

## SEM-I

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Thursday 16-05-2024	Engineering Metrology and Instrumentation (311081 A)
Saturday 18-05-2024	Material Forming Technology (311082 A)
Wednesday 22-05-2024	Machining Science and Technology (311083 A)
Saturday 25-05-2024	Kinematics and Design of Machines (311084 A)
Tuesday 28-05-2024	<b>ELECTIVE-I</b> Finite Element Analysis (311085 A)-I
	<b>ELECTIVE-I</b> Advances in Manufacturing Processes (311085 A)-II
	<b>ELECTIVE-I</b> Mechatronics (311085 A)-III
	<b>ELECTIVE-I</b> Supply Chain Management (311085 A)-IV

## SEM-II

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Wednesday 15-05-2024	Production Tooling (311088 (A)
Friday 17-05-2024	Production and Operations Management (311089) (A)
Tuesday 21-05-2024	Process Engineering and Resource Planning (311090 (A)
Friday 24-05-2024	<b>ELECTIVE-II</b> Product Design and Development (311091 A)-I
	<b>ELECTIVE-II</b> Nano Manufacturing (311091 A)-II
	<b>ELECTIVE-II</b> Statistics and Numerical Methods (311091 A)-III
	<b>ELECTIVE-II</b> Financial Management and Costing (311091 A)-IV

# Production Sandwich

## SEM-I

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Thursday 16-05-2024	Manufacturing Technology (Self Study) (311122 )(A)

## SEM-II

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Wednesday 15-05-2024	Kinematics and Design of Machines (311084 A)
Friday 17-05-2024	Material forming and Mould Design (311124 A)
Tuesday 21-05-2024	Metrology & Quality Control (311125 A)
Friday 24-05-2024	Statistics and Numerical Optimization methods (311088 A)
Monday 27-05-2024	<b>ELECTIVE-II</b> Advanced Materials (311126 A)-I
	<b>ELECTIVE-II</b> Costing and Cost Control (311126 A)-II
	<b>ELECTIVE-II</b> Advanced Joining Technology (311126 A)-III
	<b>ELECTIVE-II</b> World Class Manufacturing (311126 A)-IV

# Mechatronics Engineering

## SEM-I

<b>Day &amp; Date</b>	<b>2019 Course Time : 10:00 AM To 12:30 PM</b>
<b>Thursday 16-05-2024</b>	Machine Design (317541)
<b>Saturday 18-05-2024</b>	Manufacturing Processes (317542)
<b>Wednesday 22-05-2024</b>	Control System (317543)
<b>Saturday 25-05-2024</b>	Digital Signal Processing (317544)
<b>Tuesday 28-05-2024</b>	Microcontrollers (317545)

## SEM-II

<b>Day &amp; Date</b>	<b>2019 Course Time : 10:00 AM To 12:30 PM</b>
<b>Wednesday 15-05-2024</b>	Industrial Automation (317547)
<b>Friday 17-05-2024</b>	Electro-Mechanical System (317548)
<b>Tuesday 21-05-2024</b>	Finite Element Analysis (317549)
<b>Friday 24-05-2024</b>	Embedded System Design (317550)
<b>Monday 27-05-2024</b>	Artificial Intelligence & Machine Learning (317551 )

# Robotics and Automation Engineering

## SEM-I

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Thursday 16-05-2024	Embedded systems in Robotics (311501 A)
Saturday 18-05-2024	Hydraulics and Pneumatics (311502 A)
Wednesday 22-05-2024	Robot Kinematics and Dynamics (311503 A)
Saturday 25-05-2024	Sensors Technology (311504 A)
Tuesday 28-05-2024	<b>ELECTIVE-I</b> Statistics and Numerical Methods (311505 A)-I
	<b>ELECTIVE-I</b> Finite Element Analysis (311505 A)-II
	<b>ELECTIVE-I</b> Industrial Robotics and Material handling Systems (311505 A)-III
	<b>ELECTIVE-I</b> Intelligent Manufacturing System (311505 A)-IV

## SEM-II

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Wednesday 15-05-2024	Robot Programming (311508 A)
Friday 17-05-2024	Artificial Intelligence for Robotics (311509 A)
Tuesday 21-05-2024	Flexible Manufacturing Systems (311510 A)
Friday 24-05-2024	<b>ELECTIVE-II</b> Micro-electro-mechanical Systems (311511A)-I
	<b>ELECTIVE-II</b> Humanoid Robots (311511 A)-II
	<b>ELECTIVE-II</b> Modeling and Simulation (311511 A)-III
	<b>ELECTIVE-II</b> Swarm Intelligence in Robotics (311511 A)-IV

# Artificial Intelligence and Machine Learning

## SEM-I

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Thursday 16-05-2024	Design and analysis of Algorithm (318541)
Saturday 18-05-2024	IoT with Artificial Intelligence (318542)
Wednesday 22-05-2024	Web Technology (318543)
Saturday 25-05-2024	Management & Entrepreneurship for IT Industry (318544)
Tuesday 28-05-2024	ELECTIVE-I Robotics (318545 A)
	ELECTIVE-I Pattern Recognition (318545 B)
	ELECTIVE-I Information Security (318545 C)
	ELECTIVE-I Business Intelligence (318545 D)

## SEM-II

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Wednesday 15-05-2024	Machine intelligence for Data Science (318552)
Friday 17-05-2024	Data Mining & Warehousing (318553)
Tuesday 21-05-2024	Artificial Neural Network (318554)
Friday 24-05-2024	ELECTIVE-II Industrial Internet of Things (318555 A)
	ELECTIVE-II Brain computer interface (318555 B)
	ELECTIVE-II AI for cyber security (318555 C)
	ELECTIVE-II Video Analytics (318555 D)

# Computer Science and Design

## SEM-I

Day & Date	2021 Course Time : 10:00 AM To 12:30 PM
Thursday 16-05-2024	Software Engineering and Project Management (318241)
Saturday 18-05-2024	Theory of Computation (318242)
Wednesday 22-05-2024	Database System Design (318243)
Saturday 25-05-2024	Design and analysis of Algorithm (318244)
Tuesday 28-05-2024	<b>ELECTIVE-I</b> Internet of Things (318245 A)
	<b>ELECTIVE-I</b> Pattern Recognition (318245 B)
	<b>ELECTIVE-I</b> Distributed Systems (318245 C)
	<b>ELECTIVE-I</b> Data Mining and warehousing (318245 D)

## SEM-II

Day & Date	2021 Course Time : 10:00 AM To 12:30 PM
Wednesday 15-05-2024	ARTIFICIAL INTELLIGENCE (318251)
Friday 17-05-2024	WEB TECHNOLOGY & APPLICATION DESIGN (318252)
Tuesday 21-05-2024	UI/UX DESIGN (318253)
Friday 24-05-2024	<b>ELECTIVE-II</b> MULTIMEDIA TECHNIQUES (318254 A )
	<b>ELECTIVE-II</b> AUGMENTED AND VIRTUAL REALITY (318254 B)
	<b>ELECTIVE-II</b> CLOUD COMPUTING (318254 C)
	<b>ELECTIVE-II</b> BUSINESS INTELLIGENCE AND DATA ANALYTICS (318254 D)

# **HONORS / MINORS**

## **SEM-I**

<b>Day &amp; Date</b>	<b>Honors / Minors</b>	<b>Time : Time : 10:00 AM To 12:30 PM</b>
<b>Thursday 30-05-2024</b>	Artificial Intelligence And Machine	Computational Statistics (310301)
	Cyber Security	Information and Cyber Security (310401)
	Data Science	Data Science and Visualization (310501)
	Internet of Things	Embedded Systems and Internet of Things (310601)
	Virtual Reality And Augmented Reality	Virtual Reality (310701)
	Systems Engineering	Foundations of systems & systems engineering (302041MJ)
	Energy Management in Utility Systems	Energy Management (302021MJ)
	Electric Vehicles	e-Vehicle Technology (302031MJ)
	3D Printing	Additive Manufacturing Technology (302011MJ)
	Robotics	Principles of Robotics (304181 HR)
	Block Chain Technology	Introduction to Block chain (304181 HBCT)
	Metro Construction	Surveying in Metro construction (301301)
	Architecture and Town Planning	Urban Housing and Infrastructure Planning (301401)
	Advanced Packaging Technology	Internet of Things (308211)



# **HONORS / MINORS**

## **SEM-II**

<b>Day &amp; Date</b>	<b>Honors / Minors</b>	<b>Time : 10:00 AM To 12:30 PM</b>
<b>Wednesday 29-05-2024</b>	Artificial Intelligence And Machine	Artificial Intelligence (310303)
	Cyber Security	Enterprise Architecture and Components (310403)
	Data Science	Statistics and Machine Learning (310503)
	Internet of Things	Internet of Things Architectures, Protocols and Systems Programming (310603)
	Virtual Reality And Augmented Reality	Augmented Reality (310703)
	Systems Engineering	Model Based Systems Engineering (302043MJ)
	Energy Management in Utility Systems	Energy Efficiency of Thermal Utilities (302023MJ)
	Electric Vehicles	e-Vehicle System Design (302033MJ)
	3D Printing	Design for Additive Manufacturing (302013MJ)
	Robotics	Robot Programming & Simulation (304183 HR)
	Block Chain Technology	Decentralize & Blockchain Technologies (304183 HBCT)
	Metro Construction	Planning and Quantity estimation for metro construction (301303)
	Architecture and Town Planning	Sustainable Architecture and Landscape Design (301403)
Advanced Packaging Technology	Smart Packaging (308213)	

Ganeshkhind, Pune - 411 007

**Ref.No/ XCT/ 249**

**Date: 13 / 04 / 2024**

**Director**

**Board of Examinations and Evaluation**