

# **SAVITRIBAI PHULE PUNE UNIVERSITY**

**(Formerly University of Pune)**



**EXAMINATION CIRCULAR NO. 211 OF. 2024**

**THIRD YEAR ENGINEERING (2019 PATTERN)**

**Endsem Examination of NOVEMBER / DECEMBER - 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**

<b>Day &amp; Date</b>	<b>2019 Course Time : 10:00 AM To 12:30 PM</b>
<b>Tuesday 10-12-2024</b>	Hydrology and Water Resources Engineering (301001)
<b>Thursday 12-12-2024</b>	Water Supply Engineering (301002)
<b>Saturday 14-12-2024</b>	Design of Steel Structures (301003) # (Time : 10:00 AM To 01:00 PM)
<b>Tuesday 17-12-2024</b>	Engineering Economics and Financial Management (301004)
<b>Thursday 19-12-2024</b>	<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**

<b>Day &amp; Date</b>	<b>2019 Course Time : 10:00 AM To 12:30 PM</b>
<b>Monday 25-11-2024</b>	Waste Water Engineering ( 301012)
<b>Thursday 28-11-2024</b>	Design of RC Structures (301013) # (Time : 10:00 AM To 01:00 PM)
<b>Saturday 30-11-2024</b>	Remote Sensing and GIS (301014)
<b>Tuesday 03-12-2024</b>	<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**

<b>Day &amp; Date</b>	<b>2019 Course Time : 10:00 AM To 12:30 PM</b>
<b>Tuesday 10-12-2024</b>	Mass Transfer-I (309341)
<b>Thursday 12-12-2024</b>	Chemical Technology -II (309342)
<b>Saturday 14-12-2024</b>	Chemical Engineering Mathematics (309343)
<b>Tuesday 17-12-2024</b>	Chemical Engineering Thermodynamics (309344)
<b>Thursday 19-12-2024</b>	<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**

<b>Day &amp; Date</b>	<b>2019 Course Time : 10:00 AM To 12:30 PM</b>
<b>Monday 25-11-2024</b>	Chemical Reaction Engineering I (309348)
<b>Thursday 28-11-2024</b>	Mass Transfer II (309349)
<b>Saturday 30-11-2024</b>	Transport Phenomena (309350)
<b>Tuesday 03-12-2024</b>	<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**

<b>Day &amp; Date</b>	<b>2019 Course Time : 10:00 AM To 12:30 PM</b>
<b>Tuesday 10-12-2024</b>	Database Management Systems (310241) *
<b>Thursday 12-12-2024</b>	Theory of Computation (310242)
<b>Saturday 14-12-2024</b>	Systems Programming and Operating System (310243)
<b>Tuesday 17-12-2024</b>	Computer Networks and Security (310244)
<b>Thursday 19-12-2024</b>	<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**

<b>Day &amp; Date</b>	<b>2019 Course Time : 10:00 AM To 12:30 PM</b>
<b>Monday 25-11-2024</b>	Data Science and Big Data Analytics (310251)
<b>Thursday 28-11-2024</b>	Web Technology (310252)
<b>Saturday 30-11-2024</b>	Artificial Intelligence (310253)
<b>Tuesday 03-12-2024</b>	<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
Tuesday 10-12-2024	Data Base Management System (310241) *
Thursday 12-12-2024	Computer Networks (317521)
Saturday 14-12-2024	Web Technology (310252)
Tuesday 17-12-2024	Artificial Intelligence (310253)
Thursday 19-12-2024	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
Monday 25-11-2024	Data Science (317529)
Thursday 28-11-2024	Cyber security (317530)
Saturday 30-11-2024	Artificial Neural Network (317531)
Tuesday 03-12-2024	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
Tuesday 10-12-2024	Industrial and Technology Management (303141)
Thursday 12-12-2024	Power Electronics (303142)
Saturday 14-12-2024	Electrical Machines-II (303143)
Tuesday 17-12-2024	Electrical Installation Design and Condition Based Maintenance (303144)
Thursday 19-12-2024	ELECTIVE-I Advanced Microcontroller and Embedded System (303145 A)
	ELECTIVE-I Digital Signal Processing (303145 B)
	ELECTIVE-I Open Elective (303145 C)

### SEM-II

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Monday 25-11-2024	Power System-II (303148)
Thursday 28-11-2024	Computer Aided Design of Electrical Machines (303149)
Saturday 30-11-2024	Control System Engineering (303150)
Tuesday 03-12-2024	ELECTIVE-II IoT and its Applications in Electrical Engineering (303151 A)
	ELECTIVE-II Electrical Mobility (303151 B)
	ELECTIVE-II Cybernetic Engineering (303151 C)
	ELECTIVE-II Energy Management (303151 D)

## ELECTRONICS ENGINEERING

### SEM-I

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Tuesday 10-12-2024	Power and Industrial Electronics (304201)
Thursday 12-12-2024	Electromagnetic Waves and Propagation Theory (304202)
Saturday 14-12-2024	Database Management (304183) *
Tuesday 17-12-2024	Microcontrollers and Applications (304204)
Thursday 19-12-2024	ELECTIVE-I Instrumentation systems (304205 )
	ELECTIVE-I Machine Learning (304205 )
	ELECTIVE-I Fundamentals of JAVA Programming (304185) *
	ELECTIVE-I Data Communication (304205 )
	ELECTIVE-I Computer Networks (304205 )
Note :- * Common with E&TC	

### SEM-II

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Monday 25-11-2024	Fundamentals of HDL (304212)
Thursday 28-11-2024	Embedded Processors and Applications (304213)
Saturday 30-11-2024	Industrial Management (304214)
Tuesday 03-12-2024	ELECTIVE-II PLC & Automation (304215 )
	ELECTIVE-II Advanced JAVA Programming (304195) *
	ELECTIVE-II Digital Signal Processing (304215 )
	ELECTIVE-II Fiber Optic Communication (304215 )
	ELECTIVE-II e Mobility (304215 )

Note : \*Common with E&TC

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## ELECTRONICS & TELECOMMUNICATION ENGINEERING

### SEM-I

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Tuesday 10-12-2024	Digital Communication (304181)
Thursday 12-12-2024	Electromagnetic Field Theory (304182)
Saturday 14-12-2024	Database Management (304183) *
Tuesday 17-12-2024	Microcontrollers (304184)
Thursday 19-12-2024	ELECTIVE-I Digital Signal Processing (304185 )
	ELECTIVE-I Electronic Measurements (304185 )
	ELECTIVE-I Fundamentals of JAVA Programming (304185 ) *
	ELECTIVE-I Computer Networks (304185 )
<b>Note :-</b> * Common with Electronics	

### SEM-II

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Monday 25-11-2024	Cellular Networks (304192)
Thursday 28-11-2024	Project Management (304193)
Saturday 30-11-2024	Power Devices & Circuits (304194)
Tuesday 03-12-2024	ELECTIVE-II Digital Image Processing (304195)
	ELECTIVE-II Sensors in Automation (304195 )
	ELECTIVE-II Advanced JAVA Programming (304195) *
	ELECTIVE-II Embedded Processors (304195 )
	ELECTIVE-II 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
Tuesday 10-12-2024	Database Management Systems (310341)
Thursday 12-12-2024	Advanced Java Programming (310342)
Saturday 14-12-2024	Data Communication (310343)
Tuesday 17-12-2024	Microcontroller and Applications (310344)
Thursday 19-12-2024	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
Monday 25-11-2024	Software Engineering and Project Management (310352)
Thursday 28-11-2024	Computer Networks and Security (310353)
Saturday 30-11-2024	Embedded Processors & Applications (310354)
Tuesday 03-12-2024	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
Tuesday 10-12-2024	Theory of Computation (314441)
Thursday 12-12-2024	Operating Systems (314442)
Saturday 14-12-2024	Machine Learning (314443)
Tuesday 17-12-2024	Human Computer Interaction (314444)
Thursday 19-12-2024	ELECTIVE-I Design and Analysis of Algorithm (314445 A)
	ELECTIVE-I Advanced Database and Management System (314445 B)
	ELECTIVE-I Design Thinking (314445 C) *
	ELECTIVE-I 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
Monday 25-11-2024	Computer Networks & Security (314451)
Thursday 28-11-2024	Data Science and Big Data Analytics (314452)
Saturday 30-11-2024	Web Application Development (314453A)
Tuesday 03-12-2024	ELECTIVE-II Artificial Intelligence (314454 A)
	ELECTIVE-II Cyber Security (314454 B)
	ELECTIVE-II Cloud Computing (314454 C)
	ELECTIVE-II Software Modeling and Design (314454 D)

## INSTRUMENTATION & CONTROL ENGINEERING

### SEM-I

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Tuesday 10-12-2024	Embedded Systems (306261)
Thursday 12-12-2024	Industrial Automation-I (306262)
Saturday 14-12-2024	Modern Control Theory (306263)
Tuesday 17-12-2024	Operating System (306264)
Thursday 19-12-2024	<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
Monday 25-11-2024	Internet of Things (306268)
Thursday 28-11-2024	Industrial Automation-II (306269)
Saturday 30-11-2024	Digital Signal Processing (306270)
Tuesday 03-12-2024	<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
Tuesday 10-12-2024	Numerical & Optimization Methods (316481)
Thursday 12-12-2024	Heat Transfer (316482)
Saturday 14-12-2024	Design of Machine Components (316483)
Tuesday 17-12-2024	Automobile Electrical and Electronics (316484)
Thursday 19-12-2024	<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
Monday 25-11-2024	Automotive Refrigeration and Air Conditioning (316485)
Thursday 28-11-2024	Automotive Chassis and Transmission (316486)
Saturday 30-11-2024	Design of Engine Components (316487)
Tuesday 03-12-2024	<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
Tuesday 10-12-2024	Numerical & Statistical Methods (302041) *
Thursday 12-12-2024	Heat & Mass Transfer (302042) *
Saturday 14-12-2024	Design of Machine Elements (302043) *
Tuesday 17-12-2024	Mechatronics (302044) *
Thursday 19-12-2024	ELECTIVE-I Advanced Forming & Joining Processes (302045-A) **
	ELECTIVE-I 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
Monday 25-11-2024	Artificial Intelligence & Machine Learning (302049)
Thursday 28-11-2024	Computer Aided Engineering (302050)
Saturday 30-11-2024	Design of Transmission Systems (302051) # (Time : 10:00 AM To 01:00 PM)
Tuesday 03-12-2024	ELECTIVE-II Composite Materials (302052-A)
	ELECTIVE-II 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
Tuesday 10-12-2024	Numerical & Statistical Methods (302041) *
Thursday 12-12-2024	Heat & Mass Transfer (302042) *
Saturday 14-12-2024	Design of Machine Elements (302043) *
Tuesday 17-12-2024	Mechatronics (302044) *
Thursday 19-12-2024	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
Monday 25-11-2024	Process Planning & Tool Selection (Self-Study-I) (302066)
Thursday 28-11-2024	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
Tuesday 10-12-2024	Design of Robot Elements (302521 )
Thursday 12-12-2024	Robot Kinematics and Dynamics (302522 )
Saturday 14-12-2024	Computer Aided Engineering and Manufacturing (302523 )
Tuesday 17-12-2024	Signal Processing and Conditioning (302524 )
Thursday 19-12-2024	<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
Monday 25-11-2024	Sensors and Vision Systems in Robots (302527 )
Thursday 28-11-2024	Artificial Intelligence in Robots (302528 )
Saturday 30-11-2024	Modelling and Simulation (302529 )
Tuesday 03-12-2024	<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
Tuesday 10-12-2024	Analytical Techniques (315461)
Thursday 12-12-2024	Material Balances and Stoichiometry (315462)
Saturday 14-12-2024	Genetic Engineering (315463)
Tuesday 17-12-2024	Introduction to Immunology (315464)
Thursday 19-12-2024	<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
Monday 25-11-2024	Fermentation Technology (315471)
Thursday 28-11-2024	Mass Transfer (315472)
Saturday 30-11-2024	Bioseparation Engineering (315473)
Tuesday 03-12-2024	<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
Tuesday 10-12-2024	Print Statistics (308281)
Thursday 12-12-2024	Offset Printing Techniques (308282)
Saturday 14-12-2024	Color Science and Measurement (308283)
Tuesday 17-12-2024	Ink Technology (308284)
Thursday 19-12-2024	<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
Monday 25-11-2024	Flexo Printing Techniques (308289)
Thursday 28-11-2024	Color Management (308290)
Saturday 30-11-2024	Design of Experiments (308291)
Tuesday 03-12-2024	<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
<b>Tuesday</b> <b>10-12-2024</b>	Engineering Metrology and Instrumentation (311081 A)
<b>Thursday</b> <b>12-12-2024</b>	Material Forming Technology (311082 A)
<b>Saturday</b> <b>14-12-2024</b>	Machining Science and Technology (311083 A)
<b>Tuesday</b> <b>17-12-2024</b>	Kinematics and Design of Machines (311084 A)
<b>Thursday</b> <b>19-12-2024</b>	<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
<b>Monday</b> <b>25-11-2024</b>	Production Tooling (311088 (A)
<b>Thursday</b> <b>28-11-2024</b>	Production and Operations Management (311089) (A)
<b>Saturday</b> <b>30-11-2024</b>	Process Engineering and Resource Planning (311090 (A)
<b>Tuesday</b> <b>03-12-2024</b>	<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
Tuesday 10-12-2024	Manufacturing Technology (Self Study) (311122 )(A)

## SEM-II

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Monday 25-11-2024	Kinematics and Design of Machines (311084 A)
Thursday 28-11-2024	Material forming and Mould Design (311124 A)
Saturday 30-11-2024	Metrology & Quality Control (311125 A)
Tuesday 03-12-2024	Statistics and Numerical Optimization methods (311088 A)
Thursday 05-12-2024	<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

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Tuesday 10-12-2024	Machine Design (317541)
Thursday 12-12-2024	Manufacturing Processes (317542)
Saturday 14-12-2024	Control System (317543)
Tuesday 17-12-2024	Digital Signal Processing (317544)
Thursday 19-12-2024	Microcontrollers (317545)

## SEM-II

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Monday 25-11-2024	Industrial Automation (317547)
Thursday 28-11-2024	Electro-Mechanical System (317548)
Saturday 30-11-2024	Finite Element Analysis (317549)
Tuesday 03-12-2024	Embedded System Design (317550)
Thursday 05-12-2024	Artificial Intelligence & Machine Learning (317551 )

# Robotics and Automation Engineering

## SEM-I

Day & Date	2019 Course Time : 10:00 AM To 12:30 PM
Tuesday 10-12-2024	Embedded systems in Robotics (311501 A)
Thursday 12-12-2024	Hydraulics and Pneumatics (311502 A)
Saturday 14-12-2024	Robot Kinematics and Dynamics (311503 A)
Tuesday 17-12-2024	Sensors Technology (311504 A)
Thursday 19-12-2024	<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
Monday 25-11-2024	Robot Programming (311508 A)
Thursday 28-11-2024	Artificial Intelligence for Robotics (311509 A)
Saturday 30-11-2024	Flexible Manufacturing Systems (311510 A)
Tuesday 03-12-2024	<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
Tuesday 10-12-2024	Design and analysis of Algorithm (318541)
Thursday 12-12-2024	IoT with Artificial Intelligence (318542)
Saturday 14-12-2024	Web Technology (318543)
Tuesday 17-12-2024	Management & Entrepreneurship for IT Industry (318544)
Thursday 19-12-2024	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
Monday 25-11-2024	Machine intelligence for Data Science (318552)
Thursday 28-11-2024	Data Mining & Warehousing (318553)
Saturday 30-11-2024	Artificial Neural Network (318554)
Tuesday 03-12-2024	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
Tuesday 10-12-2024	Software Engineering and Project Management (318241)
Thursday 12-12-2024	Theory of Computation (318242)
Saturday 14-12-2024	Database System Design (318243)
Tuesday 17-12-2024	Design and analysis of Algorithm (318244)
Thursday 19-12-2024	ELECTIVE-I Internet of Things (318245 A)
	ELECTIVE-I Pattern Recognition (318245 B)
	ELECTIVE-I Distributed Systems (318245 C)
	ELECTIVE-I Data Mining and warehousing (318245 D)

## SEM-II

Day & Date	2021 Course Time : 10:00 AM To 12:30 PM
Monday 25-11-2024	ARTIFICIAL INTELLIGENCE (318251)
Thursday 28-11-2024	WEB TECHNOLOGY & APPLICATION DESIGN (318252)
Saturday 30-11-2024	UI/UX DESIGN (318253)
Tuesday 03-12-2024	ELECTIVE-II MULTIMEDIA TECHNIQUES (318254 A )
	ELECTIVE-II AUGMENTED AND VIRTUAL REALITY (318254 B)
	ELECTIVE-II CLOUD COMPUTING (318254 C)
	ELECTIVE-II 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>Saturday 21-12-2024</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>Saturday 07-12-2024</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/ 642**

**Date: 22 / 10 / 2024**

**Director**

**Board of Examinations and Evaluation**

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