## FACULTY OF MECHANICAL ENGINEERING BRANCH: B.E. Aeronautical Engineering

REJOINING SEMESTER	ADDITIONAL SUBJECTS	EXEMPTED SUBJECTS
1	NIL	NIL
Ш	<ol> <li>GE8151 Problem Solving and Python Programming</li> <li>GE8161 Problem Solving and Python Programming Laboratory</li> </ol>	GE8261 Engineering Practices Laboratory
	<ol> <li>GE8151 Problem Solving and Python Programming</li> <li>GE8161 Problem Solving and Python Programming Laboratory</li> </ol>	ME8381 Computer Aided Machine Drawing
ш	3. GE8291 Énvironmental Science and Engineering	
IV	NIL	ME8381 Computer Aided Machine Drawing
v	NIL	NIL
VI	Open Elective - I	NIL
VII	Open Elective – I AE8602 Experimental Aerodynamics AE8604 Aircraft Design AE8605 Experimental Stress Analysis	Professional Elective – II Professional Elective – III Professional Elective - V
VIII	AE8602 Experimental Aerodynamics AE8604 Aircraft Design	Professional Elective – IV Professional Elective - V

Note: All students who have got readmitted in R 2017 after break of study shall choose electives which they have not already studied either as a core or as an elective in their previous semesters.

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# Additional Subjects to be studied and exempted in respect of students originally admitted Regulations 2013 and Rejoined in Regulations 2017 (CBCS)

# FACULTY OF MECHANICAL ENGINEERING

# **BRANCH: B.E. Automobile Engineering**

REJOINING SEMESTER	ADDITIONAL SUBJECTS	EXEMPTED SUBJECTS
I	NIL	NIL
П	<ol> <li>GE8151 Problem Solving and Python Programming</li> <li>GE8161 Problem Solving and Python Programming Laboratory</li> </ol>	GE8261 Engineering Practices Laboratory
ш	<ol> <li>GE8151 Problem Solving and Python Programming</li> <li>GE8161 Problem Solving and Python Programming Laboratory</li> <li>GE8291 Environmental Science and Engineering</li> </ol>	NIL
IV	<ol> <li>CE8395 Strength of Materials for Mechanical Engineers</li> <li>AT8301 Spark Ignition Engines</li> </ol>	<ol> <li>PR8451 Mechanics of Machines</li> <li>AT8411 Automotive Components Laboratory</li> </ol>
V	NIL	NIL
VI	Open Elective - I	NIL
VII	Open Elective – I GE8077 Total Quality Management	Professional Elective - V
VIII	GE8077 Total Quality Management	Professional Elective - V

Note: All students who have got readmitted in R 2017 after break of study shall choose electives which they have not already studied either as a core or as an elective in their previous semesters.

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# Additional Subjects to be studied and exempted in respect of students originally admitted Regulations 2013 and Rejoined in Regulations 2017 (CBCS)

# FACULTY OF MECHANICAL ENGINEERING BRANCH: B.E. Marine Engineering

REJOINING SEMESTER	ADDITIONAL SUBJECTS	EXEMPTED SUBJECTS
I	NIL	NIL
П	<ol> <li>GE8151 Problem Solving and Python Programming</li> <li>GE8161 Problem Solving and Python Programming Laboratory</li> </ol>	<ol> <li>MV8302 Basics of Marine engineering</li> <li>GE8261 Engineering Practices Laboratory</li> </ol>
Ш	<ol> <li>GE8151 Problem Solving and Python Programming</li> <li>GE8161 Problem Solving and Python Programming Laboratory</li> <li>GE8291 Environmental Science and Engineering</li> </ol>	<ol> <li>MV8302 Basics of Marine engineering</li> <li>MV8401 Marine Engineering Thermodynamics</li> </ol>
IV	<ol> <li>CE8395 Strength of Materials for Mechanical Engineers</li> <li>MV8312 Strength of Materials and Applied Mechanics Laboratory</li> </ol>	<ol> <li>MV8401 Marine Engineering Thermodynamics</li> <li>MV8407 Marine Refrigeration and Air Conditioning</li> <li>MV8411 Welding Techniques, Lathe and Special Machine Shop</li> <li>MV8506 Seamanship, Elementary Navigation and Survival at sea</li> </ol>
V	MV8403 Marine Boilers and Steam Engineering	MV8506 Seamanship, Elementary Navigation and Survival at sea
VI	Open Elective – I	MV8713 Measurement and Instrumentation Laboratory
VII	Open Elective - I	MV8713 Measurement and Instrumentation Laboratory
VIII	MV8703 Marine Control Engineering and Automation	MV8801 Marine Vehicles Performance

Note: All students who have got readmitted in R 2017 after break of study shall choose electives which they have not already studied either as a core or as an elective in their previous semesters.

# FACULTY OF MECHANICAL ENGINEERING

#### **BRANCH: B.E. Mechanical Engineering**

REJOINING SEMESTER	ADDITIONAL SUBJECTS	EXEMPTED SUBJECTS
I	NIL	NIL
П	<ol> <li>GE8151 Problem Solving and Python Programming</li> <li>GE8161 Problem Solving and Python Programming Laboratory</li> </ol>	GE8261 Engineering Practices Laboratory
ш	<ol> <li>GE8151 Problem Solving and Python Programming</li> <li>GE8161 Problem Solving and Python Programming Laboratory</li> <li>GE8291 Environmental Science and Engineering</li> </ol>	ME8381 Computer Aided Machine Drawing
IV	HS8381 Interpersonal Skills/Listening & Speaking	CE8395 Strength of Materials for Mechanical Engineers
V	NIL	NIL
VI	<ol> <li>ME8595 Thermal Engineering – II</li> <li>Open Elective - I</li> </ol>	<ol> <li>ME8693 Heat and Mass Transfer</li> <li>Professional Elective – IV</li> </ol>
VII	<ol> <li>ME8595 Thermal Engineering – II</li> <li>Open Elective – I</li> <li>ME8691 Computer Aided Design and Manufacturing</li> <li>ME8694 Hydraulics and Pneumatics</li> </ol>	<ol> <li>Professional Elective – II</li> <li>Professional Elective – III</li> <li>Professional Elective – IV</li> <li>MG8591 Principles of Management</li> </ol>
VIII	<ol> <li>ME8595 Thermal Engineering – II</li> <li>ME8691 Computer Aided Design and Manufacturing</li> <li>ME8694 Hydraulics and Pneumatics</li> </ol>	<ol> <li>MG8591 Principles of Management</li> <li>Professional Elective – IV</li> </ol>

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# FACULTY OF MECHANICAL ENGINEERING BRANCH: B.E. Production Engineering

REJOINING SEMESTER	ADDITIONAL SUBJECTS	EXEMPTED SUBJECTS
I.	NIL	NIL
Ш	<ol> <li>GE8151 Problem Solving and Python Programming</li> <li>GE8161 Problem Solving and Python Programming Laboratory</li> </ol>	GE8261 Engineering Practices Laboratory
ш	<ol> <li>GE8151 Problem Solving and Python Programming</li> <li>GE8161 Problem Solving and Python Programming Laboratory</li> <li>GE8291 Environmental Science and Engineering</li> </ol>	NIL
IV	CE8395 Strength of Materials for Mechanical Engineers	ME8491 Engineering Metallurgy
V	<ol> <li>PR8491 Computer Integrated Manufacturing</li> <li>PR8411 Fluid Power Laboratory</li> </ol>	PR8592 Welding Technology
VI	<ol> <li>Open Elective I</li> <li>PR8491 Computer Integrated Manufacturing</li> <li>PR8511 Welding and Foundry Laboratory</li> <li>PR8561 Metrology Laboratory</li> </ol>	<ol> <li>PR8602 Metal Cutting and CNC Machines</li> <li>PR8612 CNC Machine Laboratory</li> <li>ME8098 Quality Control and Reliability Engineering</li> </ol>
VII	<ol> <li>Open Elective I</li> <li>ME8692 Finite Element Analysis</li> <li>ME8682 Design and Fabrication Project</li> </ol>	ME8098 Quality Control and Reliability Engineering
VIII	NIL	NIL

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# Additional Subjects to be studied and exempted in respect of students originally admitted Regulations 2013 and Rejoined in Regulations 2017 (CBCS)

#### FACULTY OF MECHANICAL ENGINEERING

**BRANCH: B.E. Materials Science and Engineering** 

REJOINING SEMESTER	ADDITIONAL SUBJECTS	EXEMPTED SUBJECTS
1	NIL	NIL
Ш	<ol> <li>GE8151 Problem Solving and Python Programming</li> <li>GE8161 Problem Solving and Python Programming Laboratory</li> </ol>	GE8261 Engineering Practices Laboratory
ш	<ol> <li>GE8151 Problem Solving and Python Programming</li> <li>GE8161 Problem Solving and Python Programming Laboratory</li> </ol>	NIL
IV	NIL	NIL
V	ML8402 Corrosion and Surface Engineering	NIL
VI	<ol> <li>ML8505 Ceramics and Refractory Materials</li> <li>Open Elective - I</li> </ol>	ML8603 Welding Metallurgy
VII	<ol> <li>ML8505 Ceramics and Refractory Materials</li> <li>Open Elective – I</li> <li>ML8604 Non Destructive Materials of Evaluation</li> </ol>	NIL
VIII	1. ML8505 Ceramics and Refractory Materials	NIL

Note: All students who have got readmitted in R 2017 after break of study shall choose electives which they have not already studied either as a core or as an elective in their previous semesters.

# Additional Subjects to be studied and exempted in respect of students originally admitted Regulations 2013 and Rejoined in Regulations 2017 (CBCS)

#### FACULTY OF MECHANICAL ENGINEERING

#### **BRANCH: B.E. Manufacturing Engineering**

REJOINING SEMESTER	ADDITIONAL SUBJECTS	EXEMPTED SUBJECTS
I	NIL	NIL
н	<ol> <li>GE8151 Problem Solving and Python Programming</li> <li>GE8161 Problem Solving and Python Programming Laboratory</li> </ol>	GE8261 Engineering Practices Laboratory
ш	<ol> <li>GE8151 Problem Solving and Python Programming</li> <li>GE8161 Problem Solving and Python Programming Laboratory</li> <li>GE8291 Environmental Science and Engineering</li> </ol>	ME8381 Computer Aided Machine Drawing
IV	NIL	PR8451 Mechanics of Machines
v	HS8381 Interpersonal Skills/Listening & Speaking	<ol> <li>MF8502 Machine Design</li> <li>MF8503 Engineering Metrology</li> </ol>
VI	Open Elective - I	<ol> <li>Professional Elective I</li> <li>MF8791 Metal Forming Technology</li> </ol>
VII	Open Elective – I MF8691 Flexible Manufacturing Systems ME8791 Mechatronics ME8781 Mechatronics Laboratory	<ol> <li>MF8701 Computer Integrated Production Management System</li> <li>MF8791 Metal Forming Technology</li> <li>Professional Elective II</li> </ol>
VIII	NIL	NIL

Note: All students who have got readmitted in R 2017 after break of study shall choose electives which they have not already studied either as a core or as an elective in their previous semesters.

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### FACULTY OF MECHANICAL ENGINEERING

#### **BRANCH: B.E. Industrial Engineering and Management**

REJOINING SEMESTER	ADDITIONAL SUBJECTS	EXEMPTED SUBJECTS
I	NIL	NIL
П	<ol> <li>GE8151 Problem Solving and Python Programming</li> <li>GE8161 Problem Solving and Python Programming Laboratory</li> </ol>	GE8261 Engineering Practices Laboratory
Ш	<ol> <li>GE8151 Problem Solving and Python Programming</li> <li>GE8161 Problem Solving and Python Programming Laboratory</li> <li>GE8291 Environmental Science and Engineering</li> </ol>	NIL
IV	HS8381 Interpersonal Skills/Listening & Speaking	NIL
V	NIL	MG8591 Principles of Management
VI	Open Elective I	Professional Elective III     MG8891 Human Resource Management
VII	<ol> <li>IM8691 Value Engineering and Project Management</li> <li>Open Elective I</li> </ol>	<ol> <li>Professional Elective III</li> <li>Professional Elective IV</li> <li>MG8891 Human Resource Management</li> </ol>
VIII	NIL	MG8891 Human Resource Management

Note: All students who have got readmitted in R 2017 after break of study shall choose electives which they have not already studied either as a core or as an elective in their previous semesters.

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#### FACULTY OF MECHANICAL ENGINEERING BRANCH: B.E. Mechatronics Engineering

REJOINING SEMESTER	ADDITIONAL SUBJECTS	EXEMPTED SUBJECTS
I	NIL	NIL
Ш	<ol> <li>GE8151 Problem Solving and Python Programming</li> <li>GE8161 Problem Solving and Python Programming Laboratory</li> </ol>	1. GE8261 Engineering Practices Laboratory
ш	<ol> <li>GE8151 Problem Solving and Python Programming</li> <li>GE8161 Problem Solving and Python Programming Laboratory</li> <li>GE8291 Environmental Science and Engineering</li> </ol>	NIL
IV	<ol> <li>MT8302 Analog Devices and Circuits</li> <li>HS8381 Interpersonal Skills/Listening &amp; Speaking</li> </ol>	<ol> <li>ME8492 Kinematics of Machinery</li> <li>ME8381 Computer Aided Machine Drawing</li> </ol>
v	<ol> <li>MT8302 Analog Devices and Circuits</li> <li>MT8401 Thermodynamics and Heat Transfer</li> <li>MT8411 Microprocessor and Microcontrollers Laboratory</li> </ol>	<ol> <li>ME8594 Dynamics of Machines</li> <li>ME8481 Dynamics Laboratory</li> <li>EC8391 Control Systems Engineering</li> </ol>
VI	<ol> <li>MT8302 Analog Devices and Circuits</li> <li>MT8411 Microprocessor and Microcontrollers Laboratory</li> <li>Open Elective I</li> </ol>	ME8593 Design of Machine Elements
VII	<ol> <li>MT8602 Industrial Automation</li> <li>MT8612 Industrial Automation Laboratory</li> <li>ME8682 Design and Fabrication Project</li> <li>Open Elective I</li> </ol>	Professional Elective – II
VIII	<ol> <li>MT8602 Industrial Automation</li> <li>MT8612 Industrial Automation Laboratory</li> <li>ME8691 Computer Aided Design and Manufacturing</li> <li>MT8791 Embedded System Design</li> </ol>	Professional Elective – IV Professional Elective – V

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# Additional Subjects to be studied and exempted in respect of students originally admitted Regulations 2013 and Rejoined in Regulations 2017 (CBCS)

# FACULTY OF MECHANICAL ENGINEERING

# BRANCH: B.E. Mechanical Engineering (Sandwich)

REJOINING SEMESTER	ADDITIONAL SUBJECTS	EXEMPTED SUBJECTS
1	NIL	NIL
П	<ol> <li>GE8151 Problem Solving and Python Programming</li> <li>GE8161 Problem Solving and Python Programming Laboratory</li> </ol>	GE8261 Engineering Practices Laboratory
ш	<ol> <li>GE8151 Problem Solving and Python Programming</li> <li>GE8161 Problem Solving and Python Programming Laboratory</li> <li>GE8291 Environmental Science and Engineering</li> </ol>	NIL
IV	<ol> <li>ME8351 Manufacturing Technology – I</li> <li>ME8361 Manufacturing Technology Laboratory – I</li> </ol>	NIL
v	<ol> <li>ME8351 Manufacturing Technology – I</li> <li>ME8361 Manufacturing Technology Laboratory – I</li> <li>ME8451 Manufacturing Technology – II</li> <li>ME8462 Manufacturing Technology Laboratory – II</li> </ol>	<ol> <li>MS8501 Industrial Metallurgy</li> <li>PR8481 Metallurgy Laboratory</li> </ol>
VI	<ol> <li>ME8451 Manufacturing Technology – II</li> <li>ME8462 Manufacturing Technology Laboratory – II</li> <li>ME8593 Design of Machine Elements</li> </ol>	NIL
VII	<ol> <li>ME8651 Design of Transmission Systems</li> <li>ME8694 Hydraulics and Pneumatics</li> <li>ME8592 CAD/CAM</li> </ol>	MG8591 Principles of Management
VIII	<ol> <li>ME8694 Hydraulics and Pneumatics</li> <li>ME8592 CAD/CAM</li> <li>ME8595 Thermal Engineering – II</li> <li>MS8712 Thermal Engineering Laboratory – II</li> </ol>	<ol> <li>ME8693 Heat and Mass Transfer</li> <li>MS8811 Heat and Mass Transfer Laboratory</li> <li>MG8591 Principles of Management</li> </ol>

IX	<ol> <li>ME8694 Hydraulics and Pneumatics</li> <li>ME8592 CAD/CAM</li> <li>ME8595 Thermal Engineering – II</li> <li>MS8712 Thermal Engineering Laboratory – II</li> </ol>	<ol> <li>MG8591 Principles of Management</li> <li>Professional Elective IV</li> </ol>
x	<ol> <li>ME8694 Hydraulics and Pneumatics</li> <li>ME8592 CAD/CAM</li> <li>ME8595 Thermal Engineering – II</li> <li>MS8712 Thermal Engineering Laboratory – II</li> </ol>	<ol> <li>MG8591 Principles of Management</li> <li>Professional Elective VI</li> </ol>

Note: All students who have got readmitted in R 2017 after break of study shall choose electives which they have not already studied either as a core or as an elective in their previous semesters.

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# Additional Subjects to be studied and exempted in respect of students originally admitted Regulations 2013 and Rejoined in Regulations 2017 (CBCS)

# FACULTY OF MECHANICAL ENGINEERING BRANCH: B.E. Industrial Engineering

REJOINING SEMESTER	ADDITIONAL SUBJECTS	EXEMPTED SUBJECTS
I	NIL	NIL
П	<ol> <li>GE8151 Problem Solving and Python Programming</li> <li>GE8161 Problem Solving and Python Programming Laboratory</li> </ol>	GE8261 Engineering Practices Laboratory
ш	<ol> <li>GE8151 Problem Solving and Python Programming</li> <li>GE8161 Problem Solving and Python Programming Laboratory</li> <li>GE8291 Environmental Science and Engineering</li> </ol>	NIL
IV	ME8391 Engineering Thermodynamics	<ol> <li>IE8451 Engineering Economics and Cost Estimation</li> <li>PR8451 Mechanics of Machines</li> </ol>
V	ME8391 Engineering Thermodynamics	ME8593 Design of Machine Elements
VI	Open Elective - I	<ol> <li>MG8591 Principles of Management</li> <li>IE8892 Statistical Quality Control</li> </ol>
VII	<ol> <li>ME8391 Engineering Thermodynamics</li> <li>Open Elective - I</li> </ol>	<ol> <li>IE8892 Statistical Quality Control</li> <li>Professional Elective IV</li> </ol>
VIII	ME8391 Engineering Thermodynamics	IE8892 Statistical Quality Control

Note: All students who have got readmitted in R 2017 after break of study shall choose electives which they have not already studied either as a core or as an elective in their previous semesters.

# Additional Subjects to be studied and exempted in respect of students originally admitted Regulations 2013 and Rejoined in Regulations 2017 (CBCS)

#### FACULTY OF MECHANICAL ENGINEERING

#### **BRANCH: B.E. Mechanical and Automation Engineering**

REJOINING SEMESTER	ADDITIONAL SUBJECTS	EXEMPTED SUBJECTS
I	NIL	NIL
П	<ol> <li>GE8151 Problem Solving and Python Programming</li> <li>GE8161 Problem Solving and Python Programming Laboratory</li> </ol>	GE8261 Engineering Practices Laboratory
Ш	<ol> <li>GE8151 Problem Solving and Python Programming</li> <li>GE8161 Problem Solving and Python Programming Laboratory</li> <li>GE8291 Environmental Science and Engineering</li> </ol>	NIL
IV	NIL	NIL
v	AN8401 Manufacturing System Management	<ol> <li>AN8501 LAN and Networking</li> <li>AN8512 LAN and Networking Laboratory</li> </ol>
VI	Open Elective - I	AN8701 Measurements and Controls
VII	<ol> <li>Open Elective – I</li> <li>AN8601 Thermal Engineering</li> </ol>	AN8701 Measurements and Controls
VIII	AN8601 Thermal Engineering	Professional Elective – IV

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# Additional Subjects to be studied and exempted in respect of students originally admitted Regulations 2013 and Rejoined in Regulations 2017 (CBCS)

# FACULTY OF MECHANICAL ENGINEERING BRANCH: B.E. Robotics and Automation

REJOINING SEMESTER	ADDITIONAL SUBJECTS	EXEMPTED SUBJECTS
I	NIL	NIL
П	<ol> <li>GE8151 Problem Solving and Python Programming</li> <li>GE8161 Problem Solving and Python Programming Laboratory</li> </ol>	GE8261 Engineering Practices Laboratory
ш	<ol> <li>GE8151 Problem Solving and Python Programming</li> <li>GE8161 Problem Solving and Python Programming Laboratory</li> <li>GE8291 Environmental Science and Engineering</li> </ol>	NIL
IV	EC8301 Object Oriented Programming and Data structures	<ol> <li>RO8402 Electrical Machines and Power Systems</li> <li>RO8411 Electrical Machines Laboratory</li> </ol>
v	NIL	RO8511 CNC and Metrology Laboratory
VI	Open Elective I	<ol> <li>Professional Elective II</li> <li>RO8711 Modeling and Simulation Laboratory</li> </ol>
VII	<ol> <li>Open Elective I</li> <li>ME8694 Hydraulics and Pneumatics</li> </ol>	<ol> <li>Professional Elective II</li> <li>RO8711 Modeling and Simulation Laboratory</li> </ol>
VIII	<ol> <li>ME8694 Hydraulics and Pneumatics</li> <li>RO8791 Modeling and Simulation</li> </ol>	<ol> <li>Professional Elective V</li> <li>Professional Elective VI</li> </ol>
VIII	2. RO8/91 Modeling and Simulation	2. Professional Elective VI

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