**BACHELOR OF TECHNOLOGY (AUTOMOBILE ENGINEERING) CREDIT BASED**

**KURUKSHETRA UNIVERSITY KURUKSHETRA**

**SCHEME OF STUDIES/EXAMINATION**

**SEMESTER III (w. e .f. session 2019-2020)**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **S. No** | **Course No.** | **Course Name** | **L:T:P** | **Hours/**  **Week** | **Credits** | **Examination Schedule (Marks)** | | | | **Duration**  **of Exam (Hrs.)** |
| **Major**  **Test** | **Minor**  **Test** | **Practical** | **Total** |
| 1 | #BS-201A | Optics & Waves | 3:0:0 | 3 | 3 | 75 | 25 | 0 | 100 | 3 |
| 2 | #BS-205A | Advanced Engineering Mathematics | 3:0:0 | 3 | 3 | 75 | 25 | 0 | 100 | 3 |
| 3 | #ES-203A | Basic Electronics Engineering | 3:0:0 | 3 | 3 | 75 | 25 | 0 | 100 | 3 |
| 4 | #MEC-201A | Theory of Machines | 3:1:0 | 4 | 4 | 75 | 25 | 0 | 100 | 3 |
| 5 | #MEC-203A | Mechanics of Solids-I | 3:1:0 | 4 | 4 | 75 | 25 | 0 | 100 | 3 |
| 6 | #MEC-205A | Thermodynamics | 3:1:0 | 4 | 4 | 75 | 25 | 0 | 100 | 3 |
| 7 | #MEC-207A | Theory of Machines Lab | 0:0:2 | 2 | 1 | 0 | 40 | 60 | 100 | 3 |
| 8 | #MEC-209A | Mechanics of Solids Lab | 0:0:2 | 2 | 1 | 0 | 40 | 60 | 100 | 3 |
| 9 | \*AEC-201 | Industrial Training-I | 2:0:0 | 2 | - | - | 100 | - | 100 |  |
| 10 | \*\*MC-901A | Environmental Sciences | 3:0:0 | 3 | - | 100 | - | 0 | 100 | 3 |
|  |  | **Total** | **23:3:4** | **30** | **23** | **350** | **230** | **120** | **800** |  |

***Note: \*****AEC-201 is a mandatory non-credit course in which students will be evaluated for the industrial training undergone after 2nd semester and students will be required to get passing marks to qualify.*

**\*\***MC-901A is mandatory credit-less course in which the students will be required to get passing marks in the major test.

**#** The course is common with B. Tech. (Mechanical Engineering).

**BACHELOR OF TECHNOLOGY (AUTOMOBILE ENGINEERING) CREDIT BASED**

**KURUKSHETRA UNIVERSITY KURUKSHETRA**

**SCHEME OF STUDIES/EXAMINATION**

**SEMESTER IV(w.e.f. session 2019-2020)**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **S. No.** | **Course No.** | **Course Name** | **L:T:P** | **Hours/** | **Credits** | **Examination Schedule (Marks)** | | |  | **Duration** |
|  |  |  |  | **Week** |  |  |  |  |  | **of Exam** |
|  |  |  |  |  |  |  |  |  |  | **(Hrs.)** |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | **Major** | **Minor** | **Practical** | **Total** |  |
|  |  |  |  |  |  | **Test** | **Test** |  |  |  |
| 1 | #ES-204A | Materials Engineering | 3:0:0 | 3 | 3 | 75 | 25 | 0 | 100 | 3 |
| 2 | AEC-202 | Auto Fuels and Lubricants | 3:0:0 | 3 | 3 | 75 | 25 | 0 | 100 | 3 |
| 3 | #MEC-204A | Fluid Mechanics and Fluid Machines | 3:1:0 | 4 | 4 | 75 | 25 | 0 | 100 | 3 |
| 4 | #MEC-206A | Mechanics of Solids-II | 3:1:0 | 4 | 4 | 75 | 25 | 0 | 100 | 3 |
| 5 | AEC-204 | Two and Three Wheeler Vehicles | 3:0:0 | 3 | 3 | 75 | 25 | 0 | 100 | 3 |
| 6 | #ES-206A | Materials Engineering Lab | 0:0:2 | 2 | 1 | 0 | 40 | 60 | 100 | 3 |
| 7 | #MEC-210A | Fluid Mechanics and Fluid Machines Lab | 0:0:2 | 2 | 1 | 0 | 40 | 60 | 100 | 3 |
| 8 | \*MC-902A | Constitution of India | 3:0:0 | 3 | - | 100 | - | - | 100 | 3 |
|  |  | **Total** | **18:2:4** | **24** | **19** | **375** | **205** | **120** | **700** |  |

***Note:****\*MC-902A is a mandatory credit-less course in which the students will be required to get passing marks in major test.*

**#**The course is common with B.Tech (Mechanical Engineering).

*All the students have to undergo 4 to 6 weeks industrial training after 4th semester and it will be evaluated in 5th semester.*

**BACHELOR OF TECHNOLOGY (AUTOMOBILE ENGINEERING) CREDIT BASED**

**KURUKSHETRA UNIVERSITY KURUKSHETRA**

**SCHEME OF STUDIES/EXAMINATION**

**SEMESTER V (w.e.f. session 2020-2021)**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **S. No.** | **Course No.** | **Course Name** | **L:T:P** | **Hours/** | **Credits** | **Examination Schedule (Marks)** | | |  | **Duration** |
|  |  |  |  | **Week** |  |  |  |  |  | **of Exam** |
|  |  |  |  |  |  |  |  |  |  | **(Hrs.)** |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | **Major Test** | **Minor Test** | **Practical** | **Total** |  |
| 1 | #HM-905A | Entrepreneurship | 3:0:0 | 3 | 3 | 75 | 25 | 0 | 100 | 3 |
| 2 | #MEC-301A | Heat Transfer | 3:1:0 | 4 | 4 | 75 | 25 | 0 | 100 | 3 |
| 3 | AEC-301 | Design of Automobile Components | 3:0:0 | 3 | 3 | 75 | 25 | 0 | 100 | 3 |
| 4 | AEC-303 | Auto Transmission and Electrical Systems | 3:0:0 | 3 | 3 | 75 | 25 | 0 | 100 | 3 |
| 5 | #MEC-307A | Heat Transfer lab | 0:0:2 | 2 | 1 | 0 | 40 | 60 | 100 | 3 |
| 6 | AEC-305 | Design of Automobile Components Lab | 0:0:2 | 2 | 1 | 0 | 40 | 60 | 100 | 3 |
| 7 | AEC-307 | Auto Transmission and Electrical Systems Lab | 0:0:2 | 2 | 1 | 0 | 40 | 60 | 100 | 3 |
| 8 | AEC-309 | Project-I | 0:0:2 | 2 | 1 | - | 0 | 100 | 100 | 3 |
| 9 | \*AEC-311 | Industrial Training-II | 2:0:0 | 2 | - | - | 100 | - | 100 | - |
| 10 | \*\*MC-903A | Essence of Indian Traditional  Knowledge | 3:0:0 | 3 | - | 100 | - | - | 100 | 3 |
|  |  | **Total** | **17:1:8** | **26** | **17** | **300** | **220** | **280** | **800** |  |

**Note:**\*AEC-311 is a mandatory non-credit course in which the students will be evaluated for the industrial training undergone after 4th semester and students will be required to get passing marks to qualify.

\**\*MC-903A is mandatory credit-less course in which the students will be required to get passing marks in the major test.*

**#**The course is common with B.Tech (Mechanical Engineering).

**BACHELOR OF TECHNOLOGY (AUTOMOBILE ENGINEERING) CREDIT BASED**

**KURUKSHETRA UNIVERSITY KURUKSHETRA**

**SCHEME OF STUDIES/EXAMINATION**

**SEMESTER VI(w.e.f. session 2020-2021)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **S. No.** | **Course No.** | |  | **Course Name** | **L:T:P** | **Hours/** | | | **Credits** |  | **Examination Schedule (Marks)** | | | | |  | **Duration** | |
|  |  |  |  |  |  | **Week** | | |  | |  |  |  |  |  |  | **of Exam** | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **(Hrs.)** | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  | **Major** | **Minor** |  | **Practical** |  | **Total** |  |  |
|  |  |  |  |  |  |  |  |  |  |  | **Test** | **Test** |  |  |  |  |  |  |
| 1 | #HM-901A | | Organizational Behaviour | | 3:0:0 | 3 | | | 3 | | 75 | 25 | 0 | | 100 | | 3 | |
| 2 | AEC-302 | | Automotive Engines | | 3:1:0 | 4 | | | 4 | | 75 | 25 | 0 | | 100 | | 3 | |
| 3 | AEC-304 | | Auto Pollution and Control | | 4:1:0 | 5 | | | 5 | | 75 | 25 | 0 | | 100 | | 3 | |
| 4 | AEC-306 | | Auto Pollution and Control Lab | | 0:0:2 | 2 | | | 1 | | 0 | 40 | 60 | | 100 | | 3 | |
| 5 | AEC-308 | | Automotive Engines Lab | | 0:0:2 | 2 | | | 1 | | 0 | 40 | 60 | | 100 | | 3 | |
| 6 | AEC-310 | | Project-II | | 0:0:6 | 6 | | | 3 | | 0 | 0 | 100 | | 100 | | 3 | |
| 7 | AEP\* | | Program Elective-I | | 3:1:0 | 4 | | | 4 | | 75 | 25 | 0 | | 100 | | 3 | |
| 8 | AEP\* | | Program Elective -II | | 3:1:0 | 4 | | | 4 | | 75 | 25 | 0 | | 100 | | 3 | |
|  |  | | **Total** | | **16:4:10** | **30** | | | **25** | | **375** | **205** | **220** | | **800** | |  | |
|  |  |  |  |  |  |  |  |  | |  |  | | |  |  |  |  |  |
|  |  | **Course No.** |  | **Program Elective-I** |  |  |  | **Course No.** | |  | **Program Elective-II** | | |  |  |  |  |  |
|  |  | AEP-302 |  | Internal Combustion Engineering |  |  |  | AEP-308 | |  | Microprocessor and Interfacing | | | | | |  |  |
|  |  | AEP-304 |  | Marketing and Sales Management |  |  |  | AEP-310 | |  | Automotive Air Conditioning | | | | |  |  |  |
|  |  | AEP-306 |  | Tribology and Preventive Maintenance |  |  |  | AEP-312 | |  | Production Engineering | | | | | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

***Note:***\**The course of Program Elective will be offered at 1/3rd strength or 20 students (whichever is smaller) of the section.*

**#**The course is common with B.Tech (Mechanical Engineering).

*All the students have to undergo 4 to 6 weeks industrial training after 6th semester and it will be evaluated in 7th semester.*

**BACHELOR OF TECHNOLOGY (AUTOMOBILE ENGINEERING) CREDIT BASED**

**KURUKSHETRA UNIVERSITY KURUKSHETRA**

**SCHEME OF STUDIES/EXAMINATION**

**SEMESTER VII(w.e.f. session 2021-2022)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **S. No.** | **Course No.** | | **Course Name** | | | |  | | | **L:T:P** | | **Hours/** | | | | **Credits** | | | |  | | **Examination Schedule (Marks)** | | | | | | | | | | | | | | | | **Duration** | |
|  |  |  |  |  | |  |  | | |  | |  | | **Week** | | | |  | |  | |  |  | |  | |  | |  | | |  | |  | |  | |  | | **of Exam** | |
|  |  |  |  |  | |  |  | | |  | |  | |  |  | | |  | |  | |  |  | |  | |  | |  | | |  | |  | |  | |  | | **(Hrs.)** | |
|  |  |  |  |  | |  |  | | |  | |  | |  |  | | |  | |  | |  | **Major Test** | | **Minor Test** | | | |  | **Practical** | | | | **Total** | | | | | |  | |
| 1 | | AEO\* | | Open Elective-I | | | | | | | 3:0:0 | | 3 | | | | 3 | | | | 75 | | | 25 | | | | 0 | | | | | 100 | | | | | | 3 | |
| 2 | | AEC-401 | | Vehicle Body Engineering | | | | | | | 3:0:0 | | 3 | | | | 3 | | | | 75 | | | 25 | | | | 0 | | | | | 100 | | | | | | 3 | |
| 3 | | AEC-403 | | Vehicle Maintenance Lab | | | | | | | 0:0:2 | | 2 | | | | 1 | | | | 0 | | | 40 | | | | 60 | | | | | 100 | | | | | | 3 | |
| 4 | | AEC-405 | | Project-III | | | | | | | 0:0:10 | | 10 | | | | 5 | | | | 0 | | | 100 | | | | 100 | | | | | 200 | | | | | | 3 | |
| 5 | | AEP\* | | Program Elective-III | | | | | | | 3:0:0 | | 3 | | | | 3 | | | | 75 | | | 25 | | | | 0 | | | | | 100 | | | | | | 3 | |
| 6 | | AEP\* | | Program Elective -IV | | | | | | | 3:0:0 | | 3 | | | | 3 | | | | 75 | | | 25 | | | | 0 | | | | | 100 | | | | | | 3 | |
| 7 | | \*\*AEC-407 | | Industrial Training-III | | | | | | | 2:0:0 | | 2 | | | | - | | | | - | | | 100 | | | | - | | | | | 100 | | | | | |  | |
|  | | **Total** | | | | | | | | | **14:0:12** | | **26** | | | **18** | | | | | **300** | | | **240** | | | | **160** | | | | | **700** | | | | | |  | |
|  |  |  |  | |  |  | | |  | | | |  | |  |  | | |  | | | | |  | |  | |  | | |  | |  | |  | |  | |  | |
|  |  | **Program Elective-III** | | | | **Program Elective-IV** | | | | | | |  | | **Open Elective-I** | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | **Course No.** | | **Course Name** | | | **Course No.** | | **Course Name** | | | | | | | **Course No.** | | | | | | | | | **Course Name** | | | | | | | | | | | | | | | | |
|  | AEP-401 | | Computer Integrated Manufacturing | | | AEP-407 | | Mechatronics Engineering | | | | | | |  | | AEO-401 | | | | | | | Tractor and Farm Equipments | | | | | | | | | | | | | | | | |
|  | AEP-403 | | Finite Element Analysis | | | AEP-409 | | Robotics and Automation | | | | | | | AEO-403 | | | | | | | | | Non-Destructive Testing and Techniques | | | | | | | | | | | | | | | | |
|  | AEP-405 | | Mechanical Vibrations | | | AEP-411 | | Hybrid Vehicle Systems | | | | | | |  | | AEO-405 | | | | | | | Process Planning and Cost Estimation | | | | | | | | | | | | | | | | |
|  |  |  |  |  | |  |  | | |  | |  | |  | AEO-407 | | | | | | | | | | Modern Vehicle Technology | | | | | | | | | | | | | | | | |
|  |  |  |  |  | |  |  | | |  | |  | |  | AEO-409 | | | | | | | | | | Automotive Aerodynamics | | | | | | | | | | | | | | | | |

**Note: \*The course of both Program Elective and Open Elective will be offered at 1/3rdstrength or 20 students (whichever is smaller) of the section.**

**\*\*AEC-407** is a mandatory non-credit course in which the students will be evaluated for the industrial training undergone after 6thsemester and students will berequired to get passing marks to qualify.

**BACHELOR OF TECHNOLOGY (AUTOMOBILE ENGINEERING) CREDIT BASED**

**KURUKSHETRA UNIVERSITY KURUKSHETRA**

**SCHEME OF STUDIES/EXAMINATION**

**SEMESTER VIII(w.e.f. session 2021-2022)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **S. No.** | | **Course No.** | |  | **Course Name** | **L:T:P** | | **Hours/**  **Week** | **Credits** | | | **Examination Schedule (Marks)** | | | | | | **Duration of**  **Exam (Hrs.)** |
|  |  |  |  |  |  |  |  |  |  |  |  | **Major** | **Minor** |  | **Practical** |  | **Total** |
|  |  |  |  |  |  |  |  |  |  |  |  | **Test** | **Test** |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 | | AEC-402 | |  | Project-IV | 0:0:10 |  | 10 |  | 5 | | - | 100 |  | 100 |  | 200 | 3 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2 |  | AEO\* | |  | Open Elective-II | 3:0:0 |  | 3 |  | 3 | | 75 | 25 |  | 0 |  | 100 | 3 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3 |  | AEO\* | |  | Open Elective-III | 3:0:0 |  | 3 |  | 3 | | 75 | 25 |  | 0 |  | 100 | 3 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4 |  | AEP\* | |  | Program Elective-V | 3:0:0 |  | 3 |  | 3 | | 75 | 25 |  | 0 |  | 100 | 3 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5 |  | AEP\* | |  | Program Elective-VI | 3:0:0 |  | 3 |  | 3 | | 75 | 25 |  | 0 |  | 100 | 3 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | **Total** | **12:0:10** | | **22** |  | **17** | | **300** | **200** |  | **100** |  | **600** |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | | | |  |  |
|  |  |  |  |  | **Program Elective-V** |  |  |  |  |  |  |  | **Program Elective-VI** | | | |  |  |
|  | **Course No.** | |  | **Course Name** | |  |  | **Course No.** | |  | **Course Name** | |  |  |  |  |  |  |
|  | AEP-402 | |  | Modern Machining Technology | |  |  | AEP-408 | |  | Energy Management | | | |  |  |  |  |
|  | AEP-404 | |  | Manufacturing Management | |  |  | AEP-410 | |  | Management Information Systems | | | | | |  |  |
|  | AEP-406 | | Statistical Quality Control and Reliability Engineering | | | | AEP-412 | | | Motor Vehicle and Environment Protection | | | | | | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | | | |  |  |
|  |  |  |  |  | **Open Elective-II** |  |  |  |  |  |  | **Open Elective-III** | | | | | | |
|  | **Course No.** | |  | **Course Name** | |  |  | **Course No.** | |  | **Course Name** | | | | | | | |
|  | AEO-402 | |  | Materials Handling Management | |  |  | AEO-408 | |  | Lubricants and Lubrication Technology | | | | | | | |
|  | AEO-404 | |  | Mechanical Measurement and Metrology | |  |  | AEO-410 | |  | Transport Management | | | | | | | |
|  | AEO-406 | |  | Industrial Safety and Environment | |  |  | AEO-412 | |  | Vehicle Design and Data Characteristics | | | | | | | |

**\* The course of both Program Elective and Open Elective will be offered at 1/3rd strength or 20 students (whichever is smaller) of the section**