

First Semester (Common to all Disciplines)

| Course Code | Course Title | Contact Hours per week | | | Credit Hours | Internal Assessment/Evaluation | | External Examination /Viva-voce | Total Marks |
|--------------------------------------|--|------------------------|-----------|-----------|---------------------------------|--------------------------------|----------------------|---------------------------------|-------------|
| | | L | T | P | | Assignments/ Lab Record | Teachers' Evaluation | | |
| BS-101 | Engineering Physics-I | 3 | 1 | - | 4.0 | 35 | 15 | 50 | 100 |
| BS-103 | Engineering Mathematics-I | 3 | 1 | - | 4.0 | 35 | 15 | 50 | 100 |
| BS-105 | Engineering Chemistry | 3 | 1 | - | 4.0 | 35 | 15 | 50 | 100 |
| ES-101 | Engineering Graphics & Drawing | 1 | 3 | - | 4.0 | 35 | 15 | 50 | 100 |
| ES-103 | Fundamentals of Computers and Programming | 3 | 1 | - | 4.0 | 35 | 15 | 50 | 100 |
| ES-105 | Basics of Electrical Engineering/ Basics of Electronics Engineering | 3 | 1 | - | 4.0 | 35 | 15 | 50 | 100 |
| BS-107 | Physics Lab-I | - | - | 2 | 1.0 | 15 | 10 | 25 | 50 |
| BS-109 | Chemistry Lab | - | - | 2 | 1.0 | 15 | 10 | 25 | 50 |
| ES-107 | Computer Lab | - | - | 2 | 1.0 | 15 | 10 | 25 | 50 |
| ES-109 | Electrical/ Electronics Engineering Lab | - | - | 2 | 1.0 | 15 | 10 | 25 | 50 |
| ES-111 | Workshop Practice-I | - | - | 2 | 1.0 | 15 | 10 | 25 | 50 |
| ELGA-101 | English Language and General Awareness-I | 1 | - | - | 1.0 | - | - | 25 | 25 |
| | | 17 | 08 | 10 | | | | | |
| Total Semester Credits = 30.0 | | | | | Total Semester Marks=875 | | | | |

Second Semester (Common to all Disciplines)

| Course Code | Course Title | Contact Hours per week | | | Credit Hours | Internal Assessment/Evaluation | | External Examination /Viva-voce | Total Marks |
|--------------------------------------|--|------------------------|-----------|-----------|--------------|---------------------------------|----------------------|---------------------------------|-------------|
| | | L | T | P | | Assignments/ Lab Record | Teachers' Evaluation | | |
| BS-102 | Engineering Physics-II | 3 | 1 | - | 4.0 | 35 | 15 | 50 | 100 |
| BS-104 | Engineering Mathematics-II | 3 | 1 | - | 4.0 | 35 | 15 | 50 | 100 |
| ES-102 | Introduction to Environmental Sciences | 3 | 1 | - | 4.0 | 35 | 15 | 50 | 100 |
| ES-104 | Introduction to CADD | 3 | 1 | - | 4.0 | 35 | 15 | 50 | 100 |
| ES-106 | Basics of Electronics Engineering/ Basics of Electrical Engineering | 3 | 1 | - | 4.0 | 35 | 15 | 50 | 100 |
| ES-108 | Basics of Mechanical Engineering | 3 | 1 | - | 4.0 | 35 | 15 | 50 | 100 |
| BS-108 | Physics Lab-II | - | - | 2 | 1.0 | 15 | 10 | 25 | 50 |
| ES-110 | Electronics / Electrical Engineering Lab | - | - | 2 | 1.0 | 15 | 10 | 25 | 50 |
| ES-112 | Workshop Practice-II | - | - | 2 | 1.0 | 15 | 10 | 25 | 50 |
| ES-114 | CAD Lab | - | - | 2 | 1.0 | 15 | 10 | 25 | 50 |
| HS-102 | Language Lab | - | - | 2 | 1.0 | 15 | 10 | 25 | 50 |
| ELGA-102 | English Language and General Awareness-II | 1 | - | - | 1.0 | - | - | 25 | 25 |
| | | 19 | 06 | 10 | | | | | |
| Total Semester Credits = 30.0 | | | | | | Total Semester Marks=875 | | | |

Third Semester

| Course Code | Course Title | Contact Hours per week | | | Credit Hours | Internal Assessment/Evaluation | | External Examination /Viva-voce | Total Marks |
|--------------------------------------|--|------------------------|-----------|-----------|---------------------------------|--------------------------------|----------------------|---------------------------------|-------------|
| | | L | T | P | | Assignments/ Lab Record | Teachers' Evaluation | | |
| CE-201 | Structural Analysis-I | 3 | 1 | - | 4.0 | 35 | 15 | 50 | 100 |
| CE-203 | Fluid Mechanics-I | 3 | 1 | - | 4.0 | 35 | 15 | 50 | 100 |
| CE-205 | Surveying-I | 4 | - | - | 4.0 | 35 | 15 | 50 | 100 |
| CE-207 | Building Construction and Materials | 3 | 1 | - | 4.0 | 35 | 15 | 50 | 100 |
| CE-209 | Design of Steel Structures-I | 3 | 1 | - | 4.0 | 35 | 15 | 50 | 100 |
| HS-201 | Essentials of Management and Organizational Behavior | 3 | 1 | - | 4.0 | 35 | 15 | 50 | 100 |
| CE-211 | Structural Mechanics Lab-I | - | - | 2 | 1.0 | 15 | 10 | 25 | 50 |
| CE-213 | Fluid Mechanics Lab-I | - | - | 3 | 1.5 | 25 | 15 | 35 | 75 |
| CE-215 | Surveying Lab-I | - | - | 3 | 1.5 | 25 | 15 | 35 | 75 |
| ELGA-201 | English Language and General Awareness-III | 1 | - | - | 1.0 | - | - | 25 | 25 |
| | | 20 | 05 | 08 | | | | | |
| Total Semester Credits = 29.0 | | | | | Total Semester Marks=825 | | | | |

Fourth Semester

| Course Code | Course Title | Contact Hours per week | | | Credit Hours | Internal Assessment/Evaluation | | External Examination /Viva-voce | Total Marks |
|--------------------------------------|---|------------------------|-----------|-----------|---------------------------------|--------------------------------|----------------------|---------------------------------|-------------|
| | | L | T | P | | Assignments/ Lab Record | Teachers' Evaluation | | |
| CE-202 | Structural Analysis-II | 3 | 1 | - | 4.0 | 35 | 15 | 50 | 100 |
| CE-204 | Fluid Mechanics-II | 3 | 1 | - | 4.0 | 35 | 15 | 50 | 100 |
| CE-206 | Surveying-II | 3 | 1 | - | 4.0 | 35 | 15 | 50 | 100 |
| CE-208 | Design of Concrete Structures-I | 3 | 1 | - | 4.0 | 35 | 15 | 50 | 100 |
| CE-210 | Concrete Technology | 3 | 1 | - | 4.0 | 35 | 15 | 50 | 100 |
| HS-202 | Fundamentals of Business & Economics | 3 | 1 | - | 4.0 | 35 | 15 | 50 | 100 |
| CE-212 | Concrete Lab | - | - | 2 | 1.0 | 15 | 10 | 25 | 50 |
| CE-214 | Surveying Lab-II | - | - | 3 | 1.5 | 25 | 15 | 35 | 75 |
| CE-216 | Fluid Mechanics Lab-II | - | - | 3 | 1.5 | 25 | 15 | 35 | 75 |
| ELGA-202 | English Language and General Awareness-IV | 1 | - | - | 1.0 | - | - | 25 | 25 |
| | | 19 | 06 | 08 | | | | | |
| Total Semester Credits = 29.0 | | | | | Total Semester Marks=825 | | | | |

Fifth Semester

| Course Code | Course Title | Contact Hours per week | | | Credit Hours | Internal Assessment/Evaluation | | External Examination /Viva-voce | Total Marks |
|--------------------------------------|--|------------------------|-----------|-----------|---------------------------------|--------------------------------|----------------------|---------------------------------|-------------|
| | | L | T | P | | Assignments/ Lab Record | Teachers' Evaluation | | |
| CE-301 | Structural Analysis-III | 3 | 1 | - | 4.0 | 35 | 15 | 50 | 100 |
| CE-303 | Transportation Engineering-I | 3 | 1 | - | 4.0 | 35 | 15 | 50 | 100 |
| CE-305 | Hydrology and Water Power | 3 | 1 | - | 4.0 | 35 | 15 | 50 | 100 |
| CE-307 | Soil Mechanics | 3 | 1 | - | 4.0 | 35 | 15 | 50 | 100 |
| CE-309 | Project Planning & Management | 3 | 1 | - | 4.0 | 35 | 15 | 50 | 100 |
| CE-311 | Environmental Engineering-I | 3 | 1 | - | 4.0 | 35 | 15 | 50 | 100 |
| CE-313 | Computer Applications Lab | - | - | 2 | 1.0 | 15 | 10 | 25 | 50 |
| CE-315 | Transportation Engineering Lab | - | - | 2 | 1.0 | 15 | 10 | 25 | 50 |
| CE-317 | Soil Mechanics Lab | - | - | 2 | 1.0 | 15 | 10 | 25 | 50 |
| CE-319 | Environmental Engineering Lab | - | - | 2 | 1.0 | 15 | 10 | 25 | 50 |
| ELGA-301 | English Language and General Awareness-V | 1 | - | - | 1.0 | - | - | 25 | 25 |
| | | 19 | 06 | 08 | | | | | |
| Total Semester Credits = 29.0 | | | | | Total Semester Marks=825 | | | | |

Sixth Semester

| Course Code | Course Title | Contact Hours per week | | | Credit Hours | Internal Assessment/Evaluation | | External Examination /Viva-voce | Total Marks |
|--------------------------------------|---|------------------------|-----------|-----------|---------------------------------|--------------------------------|----------------------|---------------------------------|-------------|
| | | L | T | P | | Assignments/ Lab Record | Teachers' Evaluation | | |
| CE-302 | Design of Steel Structures-II | 3 | 1 | - | 4.0 | 35 | 15 | 50 | 100 |
| CE-304 | Geotechnology | 3 | 1 | - | 4.0 | 35 | 15 | 50 | 100 |
| CE-306 | Transportation Engineering-II | 3 | 1 | - | 4.0 | 35 | 15 | 50 | 100 |
| CE-308 | Environmental Engineering-II | 3 | 1 | - | 4.0 | 35 | 15 | 50 | 100 |
| CE-310 | Irrigation Engineering | 3 | 1 | - | 4.0 | 35 | 15 | 50 | 100 |
| CE-312 | Design of Concrete Structures-II | 3 | 1 | - | 4.0 | 35 | 15 | 50 | 100 |
| CE-314 | Transportation Engineering Lab-II | - | - | 2 | 1.0 | 15 | 10 | 25 | 50 |
| CE-316 | Environmental Engineering Lab-II | - | - | 2 | 1.0 | 15 | 10 | 25 | 50 |
| CE-318 | Soil Mechanics Lab-II | - | - | 2 | 1.0 | 15 | 10 | 25 | 50 |
| CE-320 | Seminar | - | - | 2 | 1.0 | 25 | 25 | - | 50 |
| ELGA-302 | English Language and General Awareness-VI | 1 | - | - | 1.0 | - | - | 25 | 25 |
| | | 19 | 06 | 08 | | | | | |
| Total Semester Credits = 29.0 | | | | | Total Semester Marks=825 | | | | |

All the courses shall have a mandatory 21-45 days on-the-job training at the end of the Sixth Semester to be certified by the concerned Industrial house / body; covering a credit of 6 to be included in the SGPA / CGPA.

Seventh Semester

| Course Code | Course Title | Contact Hours per week | | | Credit Hours | Internal Assessment/Evaluation | | External Examination /Viva-voce | Total Marks |
|--------------------------------------|----------------------------------|------------------------|-----------|-----------|--------------|---------------------------------|----------------------|---------------------------------|-------------|
| | | L | T | P | | Assignments | Teachers' Evaluation | | |
| CE-421 | Departmental Elective-I | 3 | 1 | - | 4.0 | 35 | 15 | 50 | 100 |
| CE-422 | Departmental Elective-II | 3 | 1 | - | 4.0 | 35 | 15 | 50 | 100 |
| CE-423 | Departmental Elective-III | 3 | 1 | - | 4.0 | 35 | 15 | 50 | 100 |
| CE-424 | Departmental Elective-IV | 3 | 1 | - | 4.0 | 35 | 15 | 50 | 100 |
| OE-431 | Open Elective-I | 3 | - | - | 3.0 | 25 | - | 50 | 75 |
| OE-432 | Open Elective-II | 3 | - | - | 3.0 | 25 | - | 50 | 75 |
| IT-001 | Industrial Training (21-45 Days) | - | - | 12 | 6.0 | - | - | 150 | 150 |
| | | 18 | 04 | 12 | | | | | |
| Total Semester Credits = 28.0 | | | | | | Total Semester Marks=700 | | | |

Eighth Semester

| Course Code | Course Title | Contact Hours per week | | | Credit Hours | Internal Assessment/Evaluation | | External Examination /Viva-voce | Total Marks |
|--------------------------------------|--|------------------------|---|-----------|--------------|---------------------------------|----------------------|---------------------------------|-------------|
| | | L | T | P | | Training/ Project Report | Teachers' Evaluation | | |
| CE-441/442 | Industrial Training/Project | - | - | 40 | 20 | 150 | 100 | 250 | 500 |
| CE-450 | Comprehensive Academic and General Proficiency Viva-Voce | - | - | - | 02 | - | - | 50 | 50 |
| | | - | - | 40 | | Total Semester Marks=550 | | | |
| Total Semester Credits = 22.0 | | | | | | | | | |

**LIST OF DEPARTMENTAL ELECTIVES (16) CE-
421/422/423/424**

| | |
|---|---|
| Quantity Survey and Valuation | Finite Element Methods |
| Prestressed Concrete Structures | Traffic Engineering |
| Ground Improvement Techniques | Environmental Pollution Control |
| Solid and Hazardous Waste Management | Hydraulic Structures |
| Hydro Power Engineering | Retrofitting and Rehabilitation of Structures |
| Optimization Techniques for Civil Engineering | Machine Foundations |
| Bridge Engineering | Rock Mechanics |
| Highway & Airfield Pavement Design | Structural Dynamics and Seismic Design |

LIST OF OPEN ELECTIVES (10) OE-431/432

| | |
|----------------------------------|--|
| Operations Management | Renewable Energy Sources |
| Advanced Engineering Mathematics | Consumer Electronics |
| Entrepreneurship | Security in Computing |
| Soft Computing | Modeling and Simulation |
| Artificial Intelligence | Microprocessors and Microcontrollers |
| Remoter Sensing and GIS | Civil Engineering Estimating & Costing |

