Course Tables

For Undergraduate Program

Preparatory Year

Preparatory Year

First Term

| | | Hr | s/we | ek | M | ark Di | istribut | ion | |
|---------|------------------------------------|----------|----------|-------|-----------|----------------|--------------|----------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| PME0101 | Engineering Mathematics (1) a | 4 | 2 | 6 | 50 | | 100 | 150 | 3 |
| PME0102 | Engineering Physics (1) a | 4 | 2 | 6 | 50 | | 100 | 150 | 3 |
| PME0003 | Engineering Mechanics | 2 | 2 | 4 | 30 | | cor | ntinuous | 5 |
| MPD0001 | Engineering Drawing and Projection | 2 | 3 | 5 | 50 | 60 continuous | | 5 | |
| PME0104 | Engineering Chemistry | 3 | 2 | 5 | 25 | 25 | 75 | 125 | 3 |
| CCE0101 | Computer Technology | 2 | 2 | 4 | 20 | 20 | 60 | 100 | 3 |
| Sum | | 17 | 13 | 30 | | | | 525 | |

| | | Hr | s/we | ek | Μ | ark Di | istribut | ion | |
|---------|---------------------------------------|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| PME0201 | Engineering Mathematics (1) b | 4 | 2 | 6 | 50 | | 100 | 150 | 3 |
| PME0202 | Engineering Physics (1) b | 4 | 3 | 7 | 50 | 25 | 100 | 175 | 3 |
| PME0003 | Engineering Mechanics | 2 | 2 | 4 | 30 | | 140 | 200 | 3 |
| MPD0001 | Engineering Drawing and Projection | 1 | 4 | 5 | 50 | | 150 | 250 | 4 |
| MPD0202 | Production Engineering | 2 | 2 | 4 | 20 | 20 | 60 | 100 | 3 |
| ***02H1 | Technical English | 2 | | 2 | 10 | | 40 | 50 | 2 |
| ***02H2 | History of Engineering and Technology | 2 | | 2 | 10 | | 40 | 50 | 2 |
| Sum | | 17 | 13 | 30 | | | | 975 | |

Architectural Engineering

Architectural Engineering First Year

First Term

| | | Hr | s/we | ek | Ma | rk Dis | tribut | ion | |
|---------|--|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| ARE1101 | Architecture Design (1) a | 2 | 6 | 8 | 120 | | 80 | 200 | 6 |
| ARE1102 | Building construction and Materials (1) a | 2 | 3 | 5 | 65 | | 60 | 125 | 4 |
| ARE1103 | History and Theories of Architecture (1) a | 2 | 1 | 4 | 40 | | 60 | 100 | 3 |
| ARE1104 | Shades and Shadows | 2 | 3 | 5 | 65 | | 60 | 125 | 4 |
| ARE1105 | Computer in Architecture (1) | 2 | 2 | 4 | 40 | 20 | 40 | 100 | 3 |
| CSE1151 | Theory of Structure | 2 | 2 | 4 | 40 | | 60 | 100 | 3 |
| Sum | | 12 | 17 | 30 | | | | 750 | |

| | | Hr | s/we | ek | Ma | rk Dis | tribut | ion | |
|---------|--|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| ARE1201 | Architecture Design (1) b | 2 | 6 | 8 | 120 | | 80 | 200 | 6 |
| ARE1202 | Building construction and Materials (1) b | 2 | 3 | 5 | 65 | | 60 | 125 | 4 |
| ARE1203 | History and Theories of Architecture (1) b | 3 | 1 | 4 | 40 | | 60 | 100 | 3 |
| ARE1204 | Visual Training | 1 | 4 | 5 | 65 | | 60 | 125 | 4 |
| CPW1221 | Surveying | 2 | 2 | 4 | 30 | 20 | 50 | 100 | 3 |
| CSE1252 | Properties and Strength of Materials | 2 | 2 | 4 | 25 | 15 | 60 | 100 | 3 |
| Sum | | 12 | 18 | 30 | | | | 750 | |

Architectural Engineering Second Year

First Term

| | | Hr | s/we | ek | Ma | rk Dis | tribut | ion | |
|---------|--|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| ARE2107 | Architecture Design (2) a | 2 | 6 | 8 | 120 | | 80 | 200 | 6 |
| ARE2108 | Building Construction and Materials (2) a | 2 | 3 | 5 | 65 | | 60 | 125 | 4 |
| ARE2109 | History and Theories of Architecture (2) a | 3 | 1 | 4 | 40 | | 60 | 100 | 3 |
| ARE2110 | History and Theories of planning | 3 | 1 | 4 | 40 | | 60 | 100 | 3 |
| ARE2111 | Environmental Control | 3 | 1 | 4 | 40 | | 60 | 100 | 4 |
| CSE2153 | Concrete Steel Construction | 3 | 2 | 5 | 45 | | 80 | 125 | 4 |
| | Sum | 16 | 14 | 30 | | | | 750 | |

| | | Hr | s/we | ek | Ma | rk Dis | tribut | ion | |
|--------------------------------|--|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| ARE2207 | Architecture Design (2) b | 2 | 6 | 8 | 120 | | 80 | 200 | 6 |
| ARE2208 | Building Construction and Materials (2) b | 2 | 4 | 6 | 80 | | 70 | 150 | 4 |
| ARE2209 | History and Theories of Architecture (2) b | 3 | 1 | 4 | 40 | | 60 | 100 | 3 |
| ARE2212 | Computer in Architecture (2) | 2 | 2 | 4 | 40 | 20 | 40 | 100 | 4 |
| ARE2213 | Landscape | 3 | 1 | 4 | 40 | 20 | 40 | 100 | 3 |
| ARE2214 Sanitary Installations | | 3 | 1 | 4 | 40 | | 60 | 100 | 3 |
| Sum | | 15 | 15 | 30 | | | | 750 | |

Architectural Engineering Third Year

First Term

| | | Hr | s/we | ek | Ма | rk Dis | tribut | ion | |
|---------|---|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| ARE3115 | Architecture Design (3) a | 2 | 6 | 8 | 120 | | 80 | 300 | 6 |
| ARE3116 | Working Drawings and Construction Methods (a) | 2 | 4 | 6 | 70 | 20 | 60 | 150 | 6 |
| ARE3117 | History and Theories of Architecture (3) | З | 1 | 4 | 40 | | 60 | 100 | 4 |
| ARE3118 | Urban Planning | З | 2 | 5 | 45 | 20 | 60 | 125 | 4 |
| ARE3119 | Development of Rural Communities | 3 | 1 | 4 | 40 | | 60 | 100 | 3 |
| ARE3120 | Scientific Methods and Operation Research | 2 | 1 | 3 | 25 | | 50 | 75 | 3 |
| Sum | | 15 | 15 | 30 | | | | 850 | |

| | | Hr | s/we | ek | Ма | rk Dis | tribut | ion | |
|---------|---|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| ARE3215 | Architecture Design (3) b | 2 | 6 | 8 | 120 | | 80 | 200 | 6 |
| ARE3216 | Working Drawings and Construction Methods (b) | 2 | 4 | 6 | 70 | 20 | 60 | 150 | 6 |
| ARE3221 | Urban Design (1) | 3 | 2 | 5 | 65 | | 60 | 125 | 5 |
| ARE3222 | Housing (1) | 3 | 1 | 4 | 40 | | 60 | 100 | 4 |
| ARE3223 | Technical Installations | 3 | 1 | 4 | 40 | | 60 | 100 | 3 |
| CSE3254 | Foundation | 2 | 1 | 3 | 30 | | 45 | 75 | 3 |
| Sum | | 15 | 15 | 30 | | | | 750 | |

Architectural Engineering Fourth Year

First Term

| | | Hr | s/we | ek | Ма | rk Dis | tribut | ion | |
|---------|--|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| ARE4124 | Architecture Design (4) | 2 | 6 | 8 | 120 | | 80 | 200 | 6 |
| ARE4125 | Working Drawings Quantities and Specifications | 2 | 4 | 6 | 70 | 20 | 60 | 150 | 7 |
| ARE4126 | History and Theories of Architecture | 3 | 1 | 4 | 40 | | 60 | 100 | 4 |
| ARE4127 | City Planning | 2 | 2 | 4 | 40 | 20 | 40 | 100 | 4 |
| ARE4128 | Urban Design (2) | 2 | 2 | 4 | 40 | | 60 | 100 | 5 |
| ARE4129 | Housing (2) | 3 | 1 | 4 | 40 | | 60 | 100 | 4 |
| Sum | | 14 | 16 | 30 | | | | 750 | |

| | | H | s/we | ek | Ma | rk Dis | tribut | ion | |
|---------|--|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| ARE4230 | Project Management and Economic Feasibility Studies | 3 | | 3 | 35 | | 40 | 75 | 3 |
| ARE4231 | Building Laws and Legislation | 1 | 1 | 2 | 20 | | 30 | 50 | 3 |
| ARE42** | Elective Course (1) | 2 | 1 | 3 | 35 | | 40 | 75 | 3 |
| ARE42** | Elective Course (2) | 3 | | 3 | 35 | | 40 | 75 | 3 |
| ARE42** | Elective Course (3) | 3 | | 3 | 35 | | 40 | 75 | 3 |
| ARE4245 | Graduation Project | 4 | 12 | 16 | 200 | 20 Discu | | 400 | |
| Sum | | 16 | 14 | 30 | | | | 750 | |

Architectural Engineering Elective Courses

Elective Course (1)

| Code | Course Title |
|---------|---------------------------------------|
| ARE4232 | Renovation and Urban Upgrading |
| ARE4233 | Environmental and Urban Conservation |
| ARE4234 | Methods of Upgrading and Conservation |
| ARE4235 | Building Rehabilitation |
| | |

Elective Course (2)

| Code | Course Title |
|---------|--|
| ARE4236 | Building Technology and Construction Systems |
| ARE4237 | Building Economic |
| ARE4238 | Computers in Architecture |
| ARE4239 | Environmental planning and Design |

Elective Course (3)

| Code | Course Title |
|---------|--|
| ARE4240 | Architectural Criticism |
| ARE4241 | Architecture, Civilization and Heritage |
| ARE4242 | Architecture and Human Studies Research |
| ARE4243 | Thinking Trends in Contemporary Architecture |
| ARE4244 | Interior Architecture |

Civil Engineering

Civil Engineering First Year

First Term

| | | Hr | s/we | ek | М | ark D | istribut | ion | |
|---------|---|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| CSE1101 | Structural Analysis (1) a | 4 | 2 | 6 | 50 | | 100 | 150 | 3 |
| CPW1101 | Plane Surveying a | 4 | 2 | 6 | 30 | 30 | 90 | 150 | 3 |
| CSE1102 | Properties and Testing of Materials (1) | 4 | 2 | 6 | 30 | 30 | 90 | 150 | 3 |
| PME1105 | Engineering Mathematics (2) a | 4 | 2 | 6 | 50 | | 60 | 150 | 3 |
| ARE1191 | Architecture Construction | 2 | 2 | 4 | 30 | 20 | 40 | 100 | 3 |
| CIH11H3 | The Engineering and Environment | 2 | | 2 | 10 | | 40 | 50 | 2 |
| | Sum | 20 | 10 | 30 | | | | 750 | |

| | | Hr | s/We | ek | Ма | rk Di | stributi | ion | |
|-------------|---|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| CSE1201 | Structural Analysis (1) b | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| CPW1201 | Plane Surveying b | 3 | 3 | 6 | 30 | 30 | 90 | 150 | 3 |
| PME1205 | Engineering Mathematics (2) b | 4 | 2 | 6 | 50 | | 100 | 150 | 3 |
| CIH1201 | Civil Drawing | 2 | 4 | 6 | 60 | | 90 | 150 | 4 |
| EPM/MEP1261 | Electromechanical Equipments and Installments Engineering * | 3 | 1 | 4 | 60 | | 70 | 100 | 3 |
| CSE1203 | Engineering Geology | 2 | 1 | 3 | 30 | | 50 | 75 | 2 |
| | Sum | 17 | 13 | 30 | 25 | | | 750 | |

Civil Engineering Second Year

First Term

| | | Hr | s/We | ek | Ма | rk Dis | stributi | on | |
|---------|--|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| CSE2104 | Structural Analysis (2) a | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| CSE2105 | Design of Reinforced Concrete Structures (1) a | 3 | 2 | 5 | 40 | | 85 | 125 | 4 |
| CSE2106 | Properties and Testing of Materials (2) | 4 | 3 | 7 | 40 | 35 | 100 | 175 | 4 |
| CIH2102 | Fluid Mechanics | 3 | 2 | 5 | 25 | 25 | 75 | 125 | 3 |
| CIH2103 | Hydrology | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| CPW21H3 | Applied Statistics | 2 | 1 | 3 | 25 | | 50 | 75 | 2 |
| | Sum | 18 | 12 | 30 | | | | 750 | |

| | | Hr | s/We | ek | Ма | rk Di | stributi | ion | |
|---------|--|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| CSE2204 | Structural Analysis (2) b | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| CSE2205 | Design of Reinforced Concrete Structures (1) b | 3 | 2 | 5 | 25 | 25 | 75 | 125 | 4 |
| CPW2202 | Topographical Surveying | 4 | 3 | 7 | 40 | 35 | 100 | 175 | 4 |
| CSE2207 | Construction Economics | 2 | 2 | 4 | 30 | | 70 | 100 | 3 |
| CSE2208 | Soil Mechanics (1) | 3 | 2 | 5 | 25 | 25 | 75 | 125 | 3 |
| CIH2204 | Irrigation and Drainage Engineering | 2 | 2 | 4 | 30 | | 70 | 100 | 2 |
| | Sum | 17 | 13 | 30 | | | | 750 | |

Civil Engineering Third Year

First Term

| | | Hr | s/We | ek | Ма | rk Dis | stributi | on | |
|---------|--|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| CSE3109 | Theory of Structures | 4 | 3 | 7 | 50 | | 125 | 175 | 4 |
| CSE3110 | Design of Reinforced Concrete Structures (2) a | 3 | 2 | 5 | 40 | | 85 | 125 | 4 |
| CSE3111 | Design of Steel Structures a | 2 | 2 | 4 | 30 | | 70 | 100 | 3 |
| CSE3112 | Soil Mechanics (2) | 3 | 2 | 5 | 25 | 25 | 75 | 125 | 3 |
| CPW3103 | Transportation and Traffic Engineering | 2 | 2 | 4 | 30 | | 70 | 100 | 3 |
| CIH3105 | Hydraulics | 3 | 2 | 5 | 25 | 25 | 75 | 125 | 3 |
| | Sum | 17 | 13 | 30 | | | | 750 | |

| | | Hr | Hrs/Week | | | rk Di | stributi | ion | |
|---------|--|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| CSE3210 | Design of Reinforced Concrete Structures (2) b | 3 | 2 | 5 | 25 | 25 | 75 | 125 | 4 |
| CSE3211 | Design of Steel Structures b | 3 | 2 | 5 | 25 | 25 | 75 | 125 | 4 |
| CSE3113 | Construction Project Management | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| CSE3214 | Foundation Engineering (1) | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| CIH3206 | Design of Irrigation Works (1) | 4 | 2 | 6 | 50 | | 100 | 150 | 4 |
| CPW3204 | Railways Engineering | 2 | 2 | 4 | 30 | | 70 | 100 | 3 |
| | Sum | 18 | 12 | 30 | | | | 750 | |

Civil Engineering Fourth Year

First Term

| | | Hr | s/We | ek | Ма | rk Dis | stributi | on | |
|---------|------------------------------------|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| CSE4115 | Reinforced Concrete Structures (3) | 4 | 2 | 6 | 25 | 25 | 100 | 150 | 4 |
| CPW4105 | Sanitary Engineering | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| CIH4107 | Design of Irrigation Works (2) | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| CPW4106 | Geodesy and Satellite Surveying | 2 | 2 | 4 | 30 | | 70 | 100 | 3 |
| CPW4107 | Highway Engineering | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| CSE4116 | Foundation Engineering (2) | 3 | 2 | 5 | 25 | 25 | 75 | 125 | 3 |
| | Sum | 18 | 12 | 30 | | | | 750 | |

| | | Hrs/Week | | | Ма | rk Dis | stributi | ion | |
|---------|---|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| CSE4217 | Metallic Bridges | 3 | 2 | 5 | 25 | 25 | 75 | 125 | |
| CIH4208 | Harbors, Navigation and Shores Protection | 3 | 2 | 5 | 40 | | 85 | 125 | |
| CIH42** | Elective Course (1) | | | 0 | 30 | | 70 | 100 | |
| CPW42** | Elective Course (2) | | | 0 | 30 | | 70 | 100 | |
| CSE42** | Elective Course (3) | | | | 30 | | 70 | 100 | |
| C**42** | Project * | | | 0 | 100 | | 00 ussion | 200 | |
| | Sum | 6 | 4 | 10 | | | | 750 | |

Civil Engineering Elective Courses

Elective Course (1)

CodeCourse TitleCIH4209Water Resources ManagementCIH4210Environmental Hydrology and Water Quality ControlCIH4211Dams and Reservoirs EngineeringCIH4212Design of Pump Stations

Elective Course (2)

| Code | Course Title |
|---------|--|
| CPW4208 | Airports Engineering |
| CPW4209 | Systems of Traffic Management |
| CPW4210 | Remote Sensing and Applications |
| CPW4211 | Water and Sanitary Networks |

Elective Course (3)

| Code | Course Title |
|---------|--|
| CSE4218 | Special Topics in Reinforced Concrete Design |
| CSE4219 | Inspection and Quality Control |
| CSE4220 | Earthquake Engineering |
| CSE4221 | Plastic Design of Structures |

Civil Engineering (Structural)

Civil Engineering (Structural) Third Year

First Term

| | | Hr | s/We | ek | Ма | rk Dis | tributi | ion | |
|---------|--|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| CSE3122 | Structural Analysis (3) a | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| CSE3123 | Design of Reinforced Concrete Structures (2) a | 3 | 2 | 5 | 25 | 25 | 75 | 125 | 4 |
| CSE3124 | Design of Steel Structures a | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| CSE3125 | Soil Mechanics (3) | 3 | 2 | 5 | 25 | 25 | 75 | 125 | 3 |
| CSE3126 | Quantity Surveying and Specification Preparation | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| CSE31** | Elective Course (1) | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| | Sum | 18 | 12 | 30 | | | | 750 | |

| | | | Hrs/Week | | | rk Dis | tributi | on | |
|---------|---------------------------------|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| CSE3222 | Structural Analysis (3) b | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| CSE3223 | Concrete Structures (2) b | 3 | 2 | 5 | 25 | 25 | 75 | 125 | 4 |
| CSE3224 | Design of Steel Structures b | 3 | 2 | 5 | 25 | 25 | 75 | 125 | 3 |
| CSE3231 | Construction Project Management | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| CSE3232 | Design of Foundation (1) | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| CSE32** | Elective Course (2) | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| | Sum | 18 | 12 | 30 | | | | 750 | |

Civil Engineering (Structural) Fourth Year

First Term

| | | | Hrs/Week | | | rk Dis | tributi | ion | |
|---------|--|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| CSE4137 | Design of Reinforced Concrete Structures (3) a | 3 | 2 | 5 | 25 | 25 | 75 | 125 | 4 |
| CSE4138 | Design of Bridges a | 3 | 2 | 5 | 40 | | 85 | 125 | 4 |
| CSE4139 | Construction Project Management (2) | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| CSE4140 | Design of Foundations (2) | 3 | 2 | 5 | 25 | 25 | 75 | 125 | 3 |
| CPW4140 | Elective Course (3) | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| CSE41** | Elective Course (4) | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| | Sum | 18 | 12 | 30 | | | | 750 | |

| | | Hr | s/We | ek | Ма | on | | | |
|---------|--|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| CSE4237 | Design of Reinforced Concrete Structures (3) b | 3 | 2 | 5 | 40 | | 85 | 125 | |
| CSE4238 | Design of Metallic Bridges b | 3 | 2 | 5 | 25 | 25 | 75 | 125 | |
| CSE4245 | Computerized Structural Analysis | 3 | 2 | 5 | 20 | 20 | 60 | 100 | |
| CIH42** | Elective Course (5) | 3 | 2 | 5 | 30 | | 70 | 100 | |
| CSE42** | Elective Course (6) | 3 | 2 | 5 | 30 | | 70 | 100 | |
| CSE4250 | Project | 2 | 6 | 8 | 100 | 10 Discu |)0 Ission | 200 | |
| | Sum | 17 | 16 | 33 | | | | 750 | |

Code

Civil Engineering (Structural) Elective Courses

Elective Course (1)

Course Title

CSE3127Soil-Structures InteractionCSE3128Construction EquipmentCSE3129Special Types of ConcreteCSE3130Theory of Plates and Shells

Elective Course (2)

| Code | Course Title |
|---------|----------------------|
| CSE3233 | Soil Improvement |
| CSE3234 | Construction Methods |
| CSE3235 | Structural Dynamics |
| CSE3236 | Masonary Structures |

Elective Course (3)

CodeCourse TitleCPW4112Highways and Airports EngineeringCPW4113Sanitary EngineeringCPW4114Railway EngineeringCPW4115Transportation and Traffic Engineering

Elective Course (4)

| Code | Course Title |
|---------|--|
| CSE4141 | Repair and Strengthening of Structures |
| CSE4142 | Advanced Structural Analysis |
| CSE4143 | Plastic Design of Structures |
| CSE4144 | Inspection and Quality Control |

Code

Elective Course (5)

Course Title

| CIH4213 | Hydraulics |
|---------|--------------------------------|
| CIH4214 | Design of Irrigation Works |
| CIH4215 | Harbors and Beaches Protection |
| CIH4216 | Dams and Storages Engineering |

Elective Course (6)

| Code | Course Title |
|---------|------------------------------------|
| CSE4246 | Tunnels and Underground Structures |
| CSE4247 | Special Topics in R.C. Design |
| CSE4248 | Composite Structures |
| CSE4249 | Seizmic Engineering Isolation |

Electrical Engineering

Electrical Engineering First Year

First Term

| | | Hr | s/We | ek | Μ | | | | |
|-------------|---------------------------------------|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| PME1106 | Engineering Mathematics (2) a | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| EPM1101 | Electrical Circuits (1) | 4 | 2 | 6 | 30 | 30 | 90 | 150 | 3 |
| EEC/EPM1160 | Electrical and Electronics Materials* | 3 | 1 | 4 | 30 | | 70 | 100 | 3 |
| CCE1102 | Logic Design Principles | 4 | 1 | 5 | 40 | | 85 | 125 | 3 |
| EEC1101 | Electronics (1) | 4 | 2 | 6 | 25 | 25 | 100 | 150 | 3 |
| CCE1103 | Computer Programming (1) | 2 | 2 | 4 | 20 | 20 | 60 | 100 | 3 |
| | Sum | 20 | 10 | 30 | | | | 750 | |

| | | Hr | s/We | ek | Ма | ark Di | stribu | tion | |
|---------|-------------------------------|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| PME1206 | Engineering Mathematics (2) b | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| EPM1202 | Electrical Measurements | 4 | 2 | 6 | 30 | 30 | 90 | 150 | 3 |
| EEC1202 | Electronics (2) | 4 | 2 | 6 | 30 | 30 | 90 | 150 | 3 |
| EPM1203 | Electrical Circuits (2) | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| CCE1204 | Computer Programming (2) | 2 | 2 | 4 | 20 | 20 | 60 | 100 | 3 |
| CCE1205 | Computer Hardware | 3 | 1 | 4 | 30 | | 70 | 100 | 3 |
| | Sum | 19 | 11 | 30 | | | | 750 | |

Electrical Power and Machines Engineering

Electrical Power and Machines Engineering Second Year

First Term

| | | Hr | s/We | ek | М | ark D | istribut | ion | |
|---------|----------------------------------|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| PME2109 | Engineering Mathematics (3) a | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| EPM2104 | Electromagnetic Fields | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| EPM2105 | Electrical Power Engineering (1) | 3 | 3 | 6 | 30 | 30 | 90 | 150 | 3 |
| EPM2106 | Energy Conversion | 4 | 2 | 6 | 30 | 30 | 90 | 150 | 3 |
| MEP2141 | Mechanical Engineering | 3 | 1 | 4 | 30 | | 70 | 100 | 3 |
| CSE2155 | Civil Engineering | 3 | 1 | 4 | 30 | | 70 | 100 | 3 |
| | Sum | 19 | 11 | 30 | | | | 750 | |

| | | Hr | s/We | ek | М | ark D | istribut | ion | |
|---------|----------------------------------|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| PME2209 | Engineering Mathematics (3) b | 2 | 2 | 4 | 30 | | 70 | 100 | 3 |
| EPM2207 | Electrical Power Engineering (2) | 4 | 4 | 8 | 40 | 40 | 120 | 200 | 3 |
| EPM2208 | Electrical Machines (1) | 4 | 4 | 8 | 40 | 40 | 120 | 200 | 3 |
| EPM2209 | Power Electronics (1) | 3 | 2 | 5 | 25 | 25 | 75 | 125 | 3 |
| MEP2244 | Mechanical Power Stations | 2 | 1 | 3 | 25 | | 50 | 75 | 3 |
| EPM22H3 | Technical Reports | 1 | 1 | 2 | 15 | | 35 | 50 | 2 |
| | Sum | 16 | 14 | 30 | | | | 750 | |

Electrical Power and Machines Engineering Third Year

First Term

| 1 | | Hr | s/We | ek | М | ark D | istribut | ion | |
|---------|---|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| PME3114 | Engineering Mathematics (4) | 2 | 2 | 4 | 30 | | 70 | 100 | 3 |
| EPM3110 | Generation and Economy of Electrical Energy | 3 | 3 | 6 | 30 | 30 | 90 | 150 | 3 |
| EPM3111 | Electrical Machines (2) | 4 | 4 | 8 | 40 | 40 | 120 | 200 | 3 |
| CCE3170 | Automatic Control Principles | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| EPM3112 | High Voltage Engineering | 3 | 1 | 4 | 30 | | 70 | 100 | 3 |
| EEC31** | Elective Course (1) | 2 | 1 | 3 | 25 | | 50 | 75 | 3 |
| | Sum | 17 | 13 | 30 | | | | 750 | |

| | | Hr | s/We | ek | М | ark D | istribut | ion | |
|---------|---|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| EPM3213 | Power Electronics (2) | 2 | 2 | 4 | 20 | 20 | 60 | 100 | 3 |
| EPM3214 | Power System Analysis | 4 | 3 | 7 | 50 | | 125 | 175 | 3 |
| EPM3215 | Electrical Machines (3) | 4 | 4 | 8 | 40 | 40 | 120 | 200 | 3 |
| EPM3216 | Control of Electrical Power Systems (1) | 3 | 2 | 5 | 25 | 25 | 75 | 125 | 3 |
| CCE3271 | Microprocessors | 3 | 1 | 4 | 30 | | 70 | 100 | 3 |
| EPM32H4 | Feasibility Study of Projects | 2 | | 2 | 10 | | 40 | 50 | 2 |
| | Sum | 18 | 12 | 30 | | | | 750 | |

Electrical Power and Machines Engineering Fourth Year

First Term

| | | Hr | s/We | ek | Ν | /lark Dis | tributio | า | |
|---------|---|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| EPM4117 | Electrical Machines (4) | 4 | 4 | 8 | 40 | 40 | 120 | 200 | 3 |
| EPM4118 | Protection of Electrical Power Systems | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| EPM4119 | Applications of Computer in Electrical Power Systems | 2 | 3 | 5 | 25 | 25 | 75 | 125 | 3 |
| EPM41** | Elective Course (2) | 3 | 1 | 4 | 30 | | 70 | 100 | 3 |
| EPM41** | Elective Course (3) | 3 | 1 | 4 | 30 | | 70 | 100 | 3 |
| EPM4026 | Project | 1 | 3 | 4 | 40 | | | | |
| | Sum | 16 | 14 | 30 | | | | 650 | |

| | | Hr | s/We | ek | | Mark Dist | tribution | | |
|---------|--|----------|----------|-------|-----------|-------------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| EPM4227 | Electrical Drives | 4 | 2 | 6 | 30 | 30 | 90 | 150 | 3 |
| EPM4228 | Control of Electrical Power Systems (2) | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| EPM4229 | Applications of Electrical Protection Systems | 3 | 2 | 5 | 25 | 25 | 75 | 125 | 3 |
| EPM4230 | Special Electrical Machines | 4 | 1 | 5 | 25 | 25 | 75 | 125 | 3 |
| EPM42** | Elective Course (4) | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| EPM4026 | Project | | | 0 | 60 | 100 Discussion | 200 | 200 | |
| | Sum | 17 | 9 | 26 | | | | 850 | |

Code

Electrical Power and Machines Engineering Elective Courses

Elective Course (1)

CodeCourse TitleEEC3143Electrical CommunicationsEEC3144Digital Instruments and Measuring SystemsEEC3145Visual and Acoustic Broadcasting Engineering

Elective Course (2)

Course Title

| EPM4120 | General theory of Electrical machines |
|---------|---------------------------------------|
| EPM4121 | Electrical Installations |
| EPM4122 | New and Renewable Energy Systems |

Elective Course (3)

| Code | Course Title |
|---------|---|
| EPM4123 | DC Electrical Power Transmission |
| EPM4124 | Electrical Machines Dynamics |
| EPM4125 | Control Methods Using Power Electronics |

Elective Course (4)

| Code | Course Title |
|---------|---|
| EPM4231 | PLC in Electrical Systems |
| EPM4232 | Design and Planning of Electrical Power Systems |
| EPM4233 | Applications of Computer in Electrical Machines |

Electronics and Communications Engineering

Electronics and Communications Engineering Second Year

First Term

| | | Hrs/Week | | | M | ark Di | istribut | ion | |
|---------|-------------------------------|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| PME2110 | Engineering Mathematics (3) a | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| EEC2103 | Electronic Circuits (1) | 3 | 3 | 6 | 30 | 30 | 90 | 150 | 3 |
| EPM2142 | Electromagnetic Fields | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| EEC2104 | Communication Theory | 3 | 3 | 6 | 50 | | 100 | 150 | 3 |
| EEC2105 | Electronic Measurements (1) | 3 | 3 | 6 | 30 | 30 | 90 | 150 | 3 |
| EEC21H3 | Technical Reports | 2 | | 2 | 10 | | 40 | 50 | 2 |
| | Sum | 17 | 13 | 30 | | | | 750 | |

| | | Hr | s/We | ek | М | ark Di | istribut | ion | |
|---------|-------------------------------|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| PME2210 | Engineering Mathematics (3) b | 2 | 2 | 4 | 30 | | 70 | 100 | 3 |
| EEC2206 | Electronic Circuits (2) | 3 | 3 | 6 | 30 | 30 | 90 | 150 | 3 |
| EEC2207 | Communication Engineering | 3 | 3 | 6 | 30 | 30 | 90 | 150 | 3 |
| EEC2208 | Electromagnetic Waves (1) | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| CCE2251 | Control Engineering | 3 | 1 | 4 | 30 | | 70 | 100 | 2 |
| EEC2209 | Electronic Measurements (2) | 3 | 2 | 5 | 25 | 25 | 75 | 125 | 3 |
| | Sum | 17 | 13 | 30 | | | | 750 | |

Electronics and Communications Engineering Third Year

First Term

| | | Hr | s/We | ek | M | ark Di | istribut | ion | |
|---------|--|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| PME3115 | Engineering Mathematics (4) | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| EEC3110 | Wave Propagation and Antennas (1) | 3 | 3 | 6 | 30 | 30 | 90 | 150 | 3 |
| EEC3111 | Digital Electronics in Communication Systems | 3 | 3 | 6 | 30 | 30 | 90 | 150 | 3 |
| EEC3112 | Optical Electronics | 3 | 3 | 6 | 50 | | 100 | 150 | 3 |
| ***31** | Elective Course (1) | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| EEC31H4 | Management and Marketing | 2 | | 2 | 10 | | 40 | 50 | 2 |
| | Sum | 17 | 13 | 30 | | | | 750 | |

| | | Hr | s/We | ek | М | ark Di | istribut | tion | |
|---------|--|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| EEC3213 | Optical Communications | 3 | 2 | 5 | 25 | 25 | 75 | 125 | 3 |
| EEC3214 | Electromagnetic Waves (2) | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| EEC3215 | Microprocessor Application in Communication Systems | 2 | 3 | 5 | 25 | 25 | 75 | 125 | 3 |
| EEC32** | Elective Course (2) | 2 | 2 | 4 | 30 | | 70 | 100 | 3 |
| EEC3220 | Digital Communication Systems | 3 | 3 | 6 | 30 | 30 | 90 | 150 | 3 |
| EEC3221 | Acoustics and Ultrasonic | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| | Sum | 16 | 14 | 30 | | | | 750 | |

Electronics and Communications Engineering Fourth Year

First Term

| - | | Hr | s/We | ek | M | ark Di | istribut | ion | |
|---------|-----------------------------------|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| EEC4122 | Satellite Communication Systems | 4 | 3 | 7 | 50 | | 125 | 175 | 3 |
| EEC4123 | Wave Propagation and Antennas (2) | 3 | 3 | 6 | 30 | 30 | 90 | 150 | 3 |
| EEC2124 | Telecommunication Networks | 3 | 3 | 6 | 30 | 30 | 90 | 150 | 3 |
| EEC41** | Elective Course (3) | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| EEC4029 | Project | 1 | 3 | 4 | 40 | | | 40 | 3 |
| EEC41H5 | Project Management | 2 | | 2 | 10 | | 40 | 50 | 2 |
| | Sum | 16 | 14 | 30 | | | | 690 | |

| | | Hr | s/We | ek | М | ark D | istribut | ion | |
|---------|---------------------------------|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| EEC4230 | Mobile Communication Systems | 4 | 2 | 6 | 30 | 30 | 90 | 150 | 3 |
| EEC4231 | Computer Communication Networks | 3 | 2 | 5 | 25 | 25 | 75 | 125 | 3 |
| EEC4232 | Microwave Engineering | 3 | 2 | 5 | 25 | 25 | 75 | 125 | 3 |
| EEC42** | Elective Course (4) | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| EEC4237 | Information Theory | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| EEC4029 | Project | | 4 | 4 | 60 | | 00 ussion | 200 | 3 |
| | Sum | 16 | 14 | 30 | | | | 850 | |

Electronics and Communications Engineering Elective Courses

Elective Course (1)

CodeCourse TitleEPM3146Electrical MachinesEPM3147Power ElectronicsCCE3152PLC and Distributed SystemsCCE3153Artificial Neural Networks

Elective Course (2)

| Code | Course Title |
|---------|--|
| EEC3216 | Biomedical Electronics |
| EEC3217 | Television Engineering |
| EEC3218 | Digital Signal Processing and Applications |
| EEC3219 | Large Scale Integrated Circuits and Applications |

Elective Course (3)

| Code | Course Title |
|---------|---|
| EEC4125 | Radar Systems and Sonar |
| EEC4126 | Data Security |
| EEC4127 | Micro-electronics and Applications |
| EEC4128 | Very Large Scale Integrated Circuits and Applications |

Elective Course (4)

| Code | Course Title |
|---------|---------------------------------|
| EEC4233 | Microwave Integrated Circuits |
| EEC4234 | Optical Networks |
| EEC4235 | Multimedia and Image Processing |
| EEC4236 | Advanced Communications Systems |

Computer and Control Engineering

Computer and Control Engineering Second Year

First Term

| | | Hrs/Week | | | М | | | | |
|---------|---|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| CCE2106 | Data Structures and Algorithms | 4 | 2 | 6 | 50 | | 100 | 150 | 3 |
| CCE2107 | Digital Systems | 4 | 1 | 5 | 25 | 25 | 75 | 125 | 3 |
| CCE2108 | Microprocessors and Interfacing Systems | 3 | 2 | 5 | 25 | 25 | 75 | 125 | 3 |
| EEC2146 | Electronics Circuits and Measurements | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| EPM2143 | Energy Conversion | 3 | 1 | 4 | 30 | | 70 | 100 | 3 |
| PME2111 | Engineering Mathematics (3) a | 4 | 1 | 5 | 40 | | 85 | 125 | 3 |
| | Sum | 21 | 9 | 30 | | | | 750 | |

| | | | Hrs/Week | | | Mark Distribution | | | | |
|---------|-----------------------------------|----------|----------|-------|-----------|-------------------|--------------|-------|-------------------------------|--|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam | |
| CCE2209 | Computer Architecture | 4 | 2 | 6 | 30 | 30 | 90 | 150 | 3 | |
| CCE2210 | Signals and Systems | 4 | 2 | 6 | 30 | 30 | 90 | 150 | 3 | |
| CCE2211 | Computer Graphics | 3 | 2 | 5 | 25 | 25 | 75 | 125 | 3 | |
| EEC2247 | Communication Systems | 4 | 2 | 6 | 50 | | 100 | 150 | 3 | |
| PME2211 | Engineering Mathematics (3) b | 4 | 1 | 5 | 40 | | 85 | 125 | 3 | |
| CCE22H3 | Society of Information Technology | 2 | | 2 | 10 | | 40 | 50 | 2 | |
| | Sum | 21 | 9 | 30 | | | | 750 | | |

Computer and Control Engineering Third Year

First Term

| | | Hrs/Week | | | M | | | | |
|---------|--------------------------------------|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| CCE3112 | Database Systems | 4 | 2 | 6 | 30 | 30 | 90 | 150 | 3 |
| CCE3113 | Language and Compliers | 4 | 2 | 6 | 50 | | 100 | 150 | 3 |
| CCE3114 | Operating Systems | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| CCE3115 | Control Engineering | 3 | 2 | 5 | 25 | 25 | 75 | 125 | 3 |
| CCE3116 | Digital Signal Processing | 3 | 1 | 4 | 30 | | 70 | 100 | 3 |
| CCE3117 | Fundamentals of Stochastic Processes | 3 | 1 | 4 | 30 | | 70 | 100 | 3 |
| | Sum | 20 | 10 | 30 | | | | 750 | |

Second Year

| | | Hrs/Week | | | М | | | | |
|---------|--|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| CCE3218 | Software Engineering | 4 | 2 | 6 | 30 | 30 | 90 | 150 | 3 |
| CCE3219 | Artificial Intelligence and Expert Systems | 4 | 2 | 6 | 30 | 30 | 90 | 150 | 3 |
| CCE3220 | Digital Control | 4 | 2 | 6 | 30 | 30 | 90 | 150 | 3 |
| CCE3221 | Modeling and Simulation | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| CCE32** | Elective Course (1) | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| CCE32H4 | Decision Support Systems | 2 | | 2 | 10 | | 40 | 50 | 2 |
| | Sum | 20 | 10 | 30 | | | | 750 | |

Computer and Control Engineering Fourth Year

First Term

| | | | Hrs/Week | | | Mark Distribution | | | | |
|---------|--|----------|----------|-------|-----------|-------------------|--------------|-------|-------------------------------|--|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam | |
| CCE4126 | Computer Networks | 4 | 2 | 6 | 30 | 30 | 90 | 150 | 3 | |
| CCE4127 | Microcontroller Systems | 3 | 1 | 4 | 30 | | 70 | 100 | 3 | |
| CCE4128 | Fuzzy Control | 3 | 2 | 5 | 25 | 25 | 75 | 125 | 3 | |
| CCE4129 | Neural Networks | 3 | 2 | 5 | 40 | | 85 | 125 | 3 | |
| CCE4130 | Pattern Recognition and Digital Image Processing | 4 | 1 | 5 | 40 | | 85 | 125 | 3 | |
| CCE41** | Elective Course (2) | 3 | 2 | 5 | 40 | | 85 | 125 | 3 | |
| | Sum | | | 30 | | | | 750 | | |

| | | | Hrs/Week | | | Mark Distribution | | | | |
|---------|---|----------|----------|-------|-----------|-------------------|--------------|-------|-------------------------------|--|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam | |
| CCE4235 | Information System Design | 3 | 1 | 4 | 20 | 20 | 60 | 100 | 3 | |
| CCE4236 | Computer and Network Security | 3 | 1 | 4 | 20 | 20 | 60 | 100 | 3 | |
| CCE4237 | Control and Instrumentation in Industrial Processes | 4 | 2 | 6 | 30 | 30 | 90 | 150 | 3 | |
| CCE42** | Elective Course (3) | 3 | 2 | 5 | 40 | | 85 | 125 | 3 | |
| CCE42** | Elective Course (4) | 3 | 2 | 5 | 40 | | 85 | 125 | 3 | |
| CCE4244 | Project | 2 | 4 | 6 | 50 | | 00 ussion | 150 | | |
| | Sum | 18 | 12 | 30 | | | | 750 | | |

Computer and Control Engineering Elective Courses

Elective Course (1)

Code

Course Title

CCE3222Multimedia SystemsCCE3223Programmable Logic ControllersCCE3224Computer Aided DesignCCE3225Operations Research

Elective Course (2)

| Code | Course Title |
|---------|---------------------|
| CCE4131 | Distributed Systems |
| CCE4132 | Real-Time Systems |
| CCE4133 | Adaptive Control |
| CCE4134 | Stochastic Control |

Elective Course (3)

CodeCourse TitleCCE4238Computer VisionCCE4239Data MiningCCE4240Electronic Commerce

Elective Course (4)

| Code | Course Title |
|---------|----------------------------|
| CCE4241 | Computer System Evaluation |
| CCE4242 | Robotic Systems |
| CCE4243 | Mobile Computing |

Mechanical Engineering

Mechanical Engineering First Year

First Term

| | | Hr | s/We | ek | М | ark D | istribut | ion | |
|---------|-------------------------------|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| PME1107 | Engineering Mathematics (2) a | 4 | 2 | 6 | 50 | | 100 | 150 | 3 |
| PME1108 | Engineering Physics (2) | 2 | 2 | 4 | 20 | 20 | 60 | 100 | 3 |
| MPD1103 | Mechanical Drawing | 2 | 5 | 7 | 75 | | 100 | 175 | 4 |
| MPD1104 | Engineering Materials | 3 | 3 | 6 | 30 | 30 | 90 | 150 | 3 |
| MPD1105 | Production Engineering | 3 | 2 | 5 | 25 | 25 | 75 | 125 | 3 |
| MEP11H3 | Engineering Thinking | 2 | | 2 | 10 | | 40 | 50 | 2 |
| | Sum | 16 | 14 | 30 | | | | 750 | |

| | | Hr | s/We | ek | М | ion | | | |
|---------|---------------------------------------|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| PME1207 | Engineering Mathematics (2) b | 4 | 2 | 6 | 50 | | 100 | 150 | 3 |
| EPM1241 | Electrical and Electronic Engineering | 3 | 2 | 5 | 25 | 25 | 75 | 125 | 3 |
| MEP1201 | Applied Mechanics | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| MPD1206 | Strength and Materials Testing | 3 | 3 | 6 | 30 | 30 | 90 | 150 | 3 |
| MEP1202 | Thermodynamics (1) | 3 | 3 | 6 | 30 | 30 | 90 | 150 | 3 |
| MEP12H4 | Technical Reports | 2 | | 2 | 10 | | 40 | 50 | 2 |
| | Sum | 18 | 12 | 30 | | | | 750 | |

Production Engineering and Mechanical Design

Production Engineering and Mechanical Design Second Year

First Term

| | | Hrs/Week | | | Μ | ark Di | istribut | ion | |
|---------|-----------------------------|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| PME2112 | Engineering Mathematics (3) | 4 | 2 | 6 | 50 | | 100 | 150 | 3 |
| MPD2107 | Stress Analysis | 3 | 3 | 6 | 50 | | 100 | 150 | 3 |
| MPD2108 | Metal Casting | 3 | 3 | 6 | 30 | 30 | 90 | 150 | 3 |
| MPD2109 | Theory of Machines | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| MEP2150 | Fluid Mechanics | 3 | 2 | 5 | 25 | 25 | 75 | 125 | 3 |
| MPD21H3 | Engineering Economy | 2 | | 2 | 10 | | 40 | 50 | 2 |
| | Sum | 18 | 12 | 30 | | | | 750 | |

| | | Hr | s/We | ek | Μ | ark D | istribut | ion | |
|---------|-------------------------------|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| MPD2210 | Machine Design (1) | 3 | 4 | 7 | 75 | | 100 | 175 | 4 |
| MPD2211 | Joining of Materials | 3 | 2 | 5 | 25 | 25 | 75 | 125 | 3 |
| MEP2251 | Heat Transfer | 2 | 2 | 4 | 30 | | 70 | 100 | 3 |
| EPM2244 | Electrical Machines | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| MPD2212 | Metrology Measuring Equipment | 2 | 2 | 4 | 20 | 20 | 60 | 100 | 3 |
| MPD2213 | Furnaces and Heat Treatment | 3 | 2 | 5 | 25 | 25 | 75 | 125 | 3 |
| | Sum | 16 | 14 | 30 | | | | 750 | |

Production Engineering and Mechanical Design Third Year

First Term

| | | Hr | s/We | ek | Μ | ark D | istribut | ion | |
|---------|-------------------------|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| MPD3114 | Machine Design (2) | 2 | 3 | 5 | 50 | | 75 | 125 | 3 |
| MPD3115 | Theory of Vibrations | 3 | 3 | 6 | 50 | | 100 | 150 | 3 |
| MPD3116 | Theory of Metal Cutting | 3 | 3 | 6 | 50 | | 100 | 150 | 3 |
| MPD3117 | Theory of Metal Forming | 3 | 3 | 6 | 50 | | 100 | 150 | 3 |
| MPD3118 | Machine Tools | 2 | 2 | 4 | 20 | 20 | 60 | 100 | 3 |
| MEP31** | Elective Course (1) | 2 | 1 | 3 | 25 | | 50 | 75 | 3 |
| | Sum | 15 | 15 | 30 | | | | 750 | |

| | | Hr | s/We | ek | М | ark D | istribut | tion | |
|---------|---|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| MPD3219 | Machine (3) | 2 | 3 | 5 | 50 | | 75 | 125 | 3 |
| MPD3220 | Forming Machines | 3 | 3 | 6 | 30 | 30 | 90 | 150 | 3 |
| MPD3221 | Machining Technology | 3 | 3 | 6 | 30 | 30 | 90 | 150 | 3 |
| MPD3222 | Forming Technology | 3 | 3 | 6 | 30 | 30 | 90 | 150 | 3 |
| MPD3223 | Automatic Control of Mechanical Systems | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| MPD32H4 | Laws and Legislation | 2 | | 2 | 10 | | 40 | 50 | 2 |
| | Sum | 16 | 14 | 30 | | | | 750 | |

Production Engineering and Mechanical Design Fourth Year

First Term

| | | Hr | s/We | ek | М | ark Di | | | |
|---------|-------------------------|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| MPD4124 | Industrial Organization | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| MPD4125 | Plant Layout | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| MPD4126 | Metrology | 2 | 4 | 6 | 30 | 30 | 90 | 150 | 3 |
| MPD41** | Elective Course (2) | 3 | 2 | 5 | 25 | 25 | 75 | 125 | 3 |
| MPD41** | Elective Course (3) | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| MPD4103 | Project | 1 | 3 | 4 | 40 | | | 40 | 3 |
| | Sum | 15 | 15 | 30 | | | | 690 | |

| | | Hr | s/We | ek | Μ | ark D | istribut | ion | |
|---------|--|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| MPD4232 | Operations Research | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| MPD4233 | Tools Design and Production Facilities | 3 | 4 | 7 | 35 | 40 | 100 | 175 | 3 |
| MPD4234 | Statistics and Quality Control | 2 | 2 | 4 | 30 | | 70 | 100 | 3 |
| MPD42** | Elective Course (4) | 3 | 2 | 5 | 25 | 25 | 75 | 125 | 3 |
| MPD42** | Elective Course (5) | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| MPD4031 | Project | | 4 | 4 | 60 | | 00 ussion | 200 | |
| | Sum | 14 | 16 | 30 | | | | 850 | |

Code

Production Engineering and Mechanical Design Elective Courses

Elective Course (1)

Course Title

| MEP3152 | New and Renewable Energy |
|---------|------------------------------------|
| MEP3153 | Refrigeration and Air Conditioning |
| MEP3154 | Internal Combustion Engines |

Elective Course (2)

| Code | Course Title |
|---------|---------------------------|
| MPD4127 | Non-Traditional Machining |
| MPD4128 | Composite Materials |

Elective Course (3)

| Code | Course Title |
|---------|------------------------------------|
| MPD4129 | Mechatronics |
| MPD4130 | Numerical Control of Machine Tools |

Elective Course (4)

| Code | | Course Title |
|---------|--------------------------|---------------------|
| MPD4235 | Jigs and Fixtures | |
| MPD4236 | Industrial Robots | |

Elective Course (5)

| Code | Course Title |
|---------|----------------------------------|
| MPD4237 | Total Quality |
| MPD4238 | Use of Computer in Manufacturing |

Mechanical Power Engineering

Mechanical Power Engineering Second Year

First Term

| | | Hr | s/We | ek | М | ark D | istribut | ion | |
|----------|-----------------------------|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| PME2113 | Engineering Mathematics (3) | 4 | 2 | 6 | 50 | | 100 | 150 | 3 |
| MPD2150 | Machine Design | 2 | 3 | 5 | 40 | | 85 | 125 | 3 |
| MPD2151 | Theory of Machines | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| MEP2103 | Fluid Mechanics (1) a | 3 | 3 | 6 | 30 | 30 | 90 | 150 | 3 |
| MEpP2104 | Thermodynamics (2) | 3 | 2 | 5 | 25 | 25 | 75 | 125 | 3 |
| MEP21H5 | Engineering Economic | 2 | 1 | 3 | 25 | | 50 | 75 | 2 |
| Sum | | 17 | 13 | 30 | | | | 750 | |

| | | | s/We | ek | М | ark Di | istribut | ion | |
|---------|--|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| EPM2245 | Electrical Machines | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| MPD2252 | Production Engineering | 3 | 2 | 5 | 25 | 25 | 75 | 125 | 3 |
| MEP2205 | Measuring Instruments | 3 | 2 | 5 | 25 | 25 | 75 | 125 | 3 |
| MEP2206 | Heat Transfer (1) | 3 | 3 | 6 | 30 | 30 | 90 | 150 | 3 |
| MEP2203 | Fluid Mechanics (1) b | 3 | 3 | 6 | 30 | 30 | 90 | 150 | 3 |
| MEP22H6 | /IEP22H6 Industrial Safety and Legislation | | 1 | 3 | 25 | | 50 | 75 | 2 |
| Sum | | 17 | 13 | 30 | | | | 750 | |

Mechanical Power Engineering Third Year

First Term

| | | Hr | s/We | ek | М | ark D | istribut | ion | |
|---------|--------------------------------------|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| MPD3153 | Theory of Vibrations | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| MEP3107 | Refrigeration and Air Conditioning a | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| MEP3108 | Heat Transfer (2) | 3 | 2 | 5 | 25 | 25 | 75 | 125 | 3 |
| MEP3109 | Heat Engines a | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| MEP3110 | Fluid Mechanics (2) | 3 | 2 | 5 | 25 | 25 | 75 | 125 | 3 |
| M**31** | Elective Course (1) | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| Sum | | 18 | 12 | 30 | | | | 750 | |

| | | Hr | s/We | ek | М | ark Di | istribut | ion | |
|---------|--------------------------------------|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| EMP3248 | Electric Power | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| MEP3207 | Refrigeration and Air Conditioning b | 3 | 2 | 5 | 25 | 25 | 75 | 125 | 3 |
| MEP3209 | Heat Engines b | 3 | 2 | 5 | 25 | 25 | 75 | 125 | 3 |
| MEP3214 | Thermal Power Stations | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| MEP3215 | Gas Dynamics | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| MEP32** | Elective Course (2) | 3 | 2 | 5 | 25 | 25 | 75 | 125 | 3 |
| | Sum | | | 30 | | | | 750 | |

Mechanical Power Engineering Fourth Year

First Term

| | | Hr | s/We | ek | М | ark D | istribut | ion | |
|---------|---|----------|----------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| MEP4119 | Environmental Studies | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| MEP4120 | Hydraulic Machines a | 3 | 2 | 5 | 25 | 25 | 75 | 125 | 3 |
| MEP4121 | Automatic Control of Mechanical Systems | 3 | 3 | 6 | 30 | 30 | 90 | 150 | 3 |
| MEP41** | Elective Course (3) | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| MEP41** | Elective Course (4) | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| MEP4028 | Project | 1 | 3 | 4 | 40 | | | | |
| Sum | | 16 | 14 | 30 | | | | 650 | |

| | | Hr | s/We | ek | М | | | | |
|---------|----------------------------------|----------|------------------------------|-------|-----------|----------------|--------------|-------|-------------------------------|
| Code | Course Title | Lectures | Tutorial | Total | Term Work | Practical/Oral | Written Exam | Total | Time of Written Exam |
| MEP4229 | Hydraulic and Pneumatic Circuits | 3 | 2 | 5 | 30 | 30 | 90 | 150 | 3 |
| MEP4230 | Power Plants | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| MEP4220 | Hydraulic Machines b | 3 | 2 | 5 | 25 | 25 | 75 | 125 | 3 |
| MEP42** | Elective Course (5) | 3 | 2 | 5 | 25 | 25 | 75 | 125 | 3 |
| MEP42** | Elective Course (6) | 3 | 2 | 5 | 40 | | 85 | 125 | 3 |
| MEP4028 | Project | 1 | 3 4 60 100 Discussion 200 | | | | | | |
| | Sum | | | 29 | | | | 850 | |

Mechanical Power Engineering Elective Courses

Elective Course (1)

Code

Code

Code

| MPD3154 | Composite Material |
|---------|---------------------------------------|
| MPD3155 | Quality Control and Quality Assurance |
| MEP3113 | Advanced Fluid Mechanics |
| | |

Elective Course (2)

Course Title

Course Title

| MEP3216 | Combustion |
|---------|--|
| MEP3217 | New and Renewable Energy |
| MEP3218 | Computer Application in Mechanical Power |

Elective Course (3)

Course Title

Course Title

| MEP4122 | Fuel Systems |
|---------|--|
| MEP4123 | Operations Research of Mechanical Power |
| MEP4124 | Logistic Support in Mechanical Power Systems |

Elective Course (4)

Code

| ditioning |
|-----------|
| (|

Elective Course (5)

| Code | Course Title |
|---------|---------------------------|
| MEP4231 | Environmental Engineering |
| MEP4232 | Gas Turbine Engines |
| MEP4233 | Steam Turbines |

Elective Course (6)

CodeCourse TitleMEP4234Water Distillation and Water PumpingMEP4235RoboticsMEP4236Maintenance of Equipment