**LEVEL 100 COURSES**

**FIRST SEMESTER**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S/N** | **Course Code** | **Course Title** | **Credit Unit** | **Status** | **Pre-requisite** |
| 1 | CHM1231 | Inorganic Chemistry | 2 | Core |  |
| 2 | CHM1241 | Organic Chemistry | 2 | **“** |  |
| 3 | CSC1201 | Introduction to Computer Science | 2 | **“** |  |
| 4 | MTH1301 | Elementary Mathematics I | 3 | **“** |  |
| 5 | STA1311 | Probability I | 3 | **“** |  |
| 6 | PHY1170 | Physics Practicals I | 1 | **“** |  |
| 7 | PHY1210 | Mechanics | 2 | **“** |  |
| 8 | PHY1220 | Electricity and Magnetism | 2 | **“** |  |
| 9 | GSP1201 | Use of English | 2 | **“** |  |
| **Total Credits** | | | **19** |  | |

**SECOND SEMESTER**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S/N** | **Course Code** | **Course Title** | **Credit Unit** | **Status** | **Pre-requisite** |
| 1 | CHM1251 | Physical Chemistry | 2 | Core |  |
| 2 | CHM1261 | Practical Chemistry | 2 | **“** |  |
| 3 | MTH1302 | Elementary Mathematics II | 3 | **“** |  |
| 4 | MTH1303 | Elementary Mathematics III | 3 | **“** |  |
| 5 | PHY1180 | Physics Practicals II | 1 | **“** |  |
| 6 | PHY1230 | Behaviour of Matter | 2 | **“** |  |
| 7 | GSP1202 | Use of Library, Study Skills and ICT | 2 | **“** |  |
| **Total Credits** | | | **15** |  | |

**LEVEL 200 COURSES**

**FIRST SEMESTER**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S/N** | **Course Code** | **Course Title** | **Credit Unit** | **Status** | **Pre-requisite** |
| 1 | EGR2204 | Workshop Practice | 2 | Core |  |
| 2 | EGR2205 | Thermodynamics I | 2 | “ |  |
| 3 | EGR2206 | Material Science I | 2 | “ |  |
| 4 | EGR2207 | Principles of Electrical Engineering I | 2 | “ | PHY1220 |
| 5 | EGR2301 | Engineering Mathematics I | 3 | “ | MTH1301 |
| 6 | EGR2304 | Laboratory A | 3 | “ |  |
| 7 | EGR2306 | Applied Mechanics | 3 | “ |  |
| 8 | \*GSP2201 | Use of English | 2 | “ |  |
| 9 | GSP2204 | Foundation of Nigerian Culture, Government and Economy | 2 | “ |  |
| 10 | GSP2206 | Peace Studies and Conflict Resolution | 2 | “ |  |
| **Total Credits** | | | **21**  **\*23** |  | |

\* For Direct Entry Students only

**SECOND SEMESTER**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S/N** | **Course Code** | **Course Title** | **Credit Unit** | **Status** | **Pre-requisite** |
| 1 | EGR2101 | Engineer in Society I | 1 | Core |  |
| 2 | EGR2102 | SWEP | 1 | “ |  |
| 3 | EGR2103 | Experimental Methods and Analysis | 1 | “ |  |
| 4 | EGR2201 | Fluid Mechanics I | 2 | “ |  |
| 5 | EGR2202 | Solid Mechanics I | 2 | “ |  |
| 6 | EGR2203 | Engineering Drawing I | 2 | “ |  |
| 7 | EGR2208 | Principles of Electrical Engineering II | 2 | “ | PHY1220 |
| 8 | EGR2302 | Engineering Mathematics II | 3 | “ |  |
| 9 | EGR2305 | Laboratory B | 3 | “ |  |
| 10 | EGR2313 | Computer Programming | 3 | “ | CSC1201 |
| 11 | \*GSP2202 | Use of Library, Study Skills and ICT | 2 | “ |  |
| 12 | GSP2205 | Logic and Philosophy | 2 |  |  |
| **Total Credits** | | | **22**  **\*24** |  | |

\*For Direct Entry Students only

**LEVEL 300 COURSES**

**FIRST SEMESTER**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S/N** | **Course Code** | **Course Title** | **Credit Unit** | **Status** | **Pre-Requisite** |
| 1 | EGR3101 | Engineer in Society II | 1 | Core | EGR2101 |
| 2 | EGR3301 | Engineering Mathematics III | 3 | **“** | EGR2301 |
| 3 | MEC3204 | Fluid Mechanics II | 2 | **“** | EGR2202 |
| 4 | MEC3301 | Solid Mechanics II | 3 | **“** | EGR2201 |
| 5 | AGE3211 | Machine Component Drawing and Design | 2 | **“** | EGR2203 |
| 6 | AGE3212 | Engineering Metallurgy | 2 | **“** |  |
| 7 | AGE3213 | Introduction to Agricultural and Environmental Engineering | 2 | **“** |  |
| 8 | AGE3214 | Soil Science for Agricultural and Environmental Engineers | 2 | **“** |  |
| 9 | AGE3215 | Geology for Agricultural and Environmental Engineers | 2 | **“** |  |
| 10 | AGE3216 | Laboratory I | 2 | **“** |  |
| 11 | AGE3311 | Agricultural Land Surveying | 3 | **“** |  |
| **Total Credits** | | | **24** |  | |

**SECOND SEMESTER**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S/N** | **Course Code** | **Course Title** | **Credit Unit** | **Status** | **Pre-Requisite** |
| 1 | EGR3102 | Technical Writing and Presentation | 1 | Core |  |
| 2 | EGR3203 | SIWES I | 2 | **“** |  |
| 3 | EGR3302 | Computational Techniques | 3 | **“** | EGR2302 |
| 4 | EGR3311 | Computer Application | 3 | **“** | EGR2313 |
| 5 | MEC3207 | Mechanics of Machine I | 2 | **“** |  |
| 6 | AGE3217 | Agricultural Waste Management | 2 | **“** |  |
| 7 | AGE3218 | Laboratory II | 2 | **“** |  |
| 8 | AGE3312 | Animal Production for Agricultural and Environmental Engineers | 3 | **“** |  |
| 9 | AGE3313 | Elements of Crop Production for Agricultural and Environmental Engineers | 3 | **“** |  |
| 10 | EEP3201 | Entrepreneurship and Innovation | 2 | **“** |  |
| **Total Credits** | | | **23** |  | |

SIWES I: Students Industrial Work Experiences Scheme I

**LEVEL 400 COURSES**

**FIRST SEMESTER**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S/N** | **Course Code** | **Course Title** | **Credit**  **Unit** | **Status** | **Pre-Requisite** |
| 1 | EGR4101 | Engineer in Society III | 1 | Core | EGR3101 |
| 2 | EGR4201 | Engineering Statistics | 2 | **“** | EGR2302 |
| 3 | AGE4211 | Hydraulics | 2 |  |  |
| 4 | AGE4212 | Farm Management, Rural Sociology and Agricultural Extension | 2 | **“** |  |
| 5 | AGE4213 | Laboratory III | 2 | **“** |  |
| 6 | AGE4311 | Farm Power and Machinery | 3 | **“** |  |
| 7 | AGE4312 | Irrigation Practice and Drainage | 3 | **“** |  |
| 8 | AGE4313 | Hydrology | 3 | **“** |  |
| 9 | AGE4314 | Properties, Handling Processing and Storage of Agricultural Products | 3 | **“** |  |
| 10 | AGE4315 | Farm Structures and Environmental Control | 3 | **“** |  |
| 11 | EEP4201 | Entrepreneurship Venture Creation and Growth | 2 | **“** |  |
| **Total Credit** | | | **24** |  | |

**SECOND SEMESTER**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S/N** | **Course Code** | **Course Title** | **Credit Unit** | **Status** | **Pre-Requisite** |
| 1 | EGR4401 | SIWES II | 4 | Core |  |
| **Total Credits** | | | **4** |  | |

SIWES II: Students Industrial Work Experiences Scheme II

**LEVEL 500 COURSES**

**FIRST SEMESTER**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S/N** | **Course Code** | **Course Title** | **Credit Unit** | **Status** | **Pre-Requisite** |
| 1 | AGE5201 | Laboratory IV | 2 | **“** |  |
| 2 | AGE5301 | Agricultural Engineering Management | 3 | **“** |  |
| 3 | AGE5302 | Design of Agricultural Machinery | 3 |  | AGE4301 |
| 4 | AGE5303 | Irrigation Systems Engineering | 3 | **“** | AGE4302 |
| 5 | AGE5304 | Processing and Storage of Agricultural Products | 3 | **“** | AGE4304 |
| 6 | ⃰⃰⃰ ⃰ ⃰ ⃰ | Elective Courses | 6 |  |  |
| **Total Credits** | | | **20** |  |  |

**SECOND SEMESTER**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S/N** | **Course Code** | **Course Title** | **Credit Unit** | **Status** | **Pre-Requisite** |
| 1 | AGE5202 | Agricultural Mechanization | 2 | Core | AGE4302 |
| 2 | AGE5203 | Land Clearing and Development | 2 | **“** |  |
| 3 | AGE5305 | Farm Electrification | 3 | **“** |  |
| 4 | AGE5306 | Soil and Water Conservation Engineering | 3 | **“** |  |
| 5 | AGE5601 | Final Year Project | 6 | **“** |  |
| 6 | ⃰⃰⃰ ⃰ ⃰ ⃰ | Elective Courses | 6 |  |  |
| **Total Credits** | | | **22** |  |  |

## ELECTIVE COURSES S

Level 500 Students are expected to select two elective courses in each semester from the following options:

**FIRST SEMESTER ELECTIVE COURSES**

**FARM POWER AND MACHINERY SPECIALIZATION**

|  |  |  |  |
| --- | --- | --- | --- |
| **S/N** | **Course Code** | **Course Title** | **Credit Unit** |
| 1 | AGE5307 | Agricultural Power | 3 |
| 2 | AGE5308 | Operation and Management of Farm Power and Machinery Systems | 3 |
| 3 | AGE5309 | Agricultural Systems’ Automation | 3 |
| 4 | AGE5310 | Automotive Service and Maintenance | 3 |

**SOIL AND WATER ENGINEERING SPECIALIZATION**

|  |  |  |  |
| --- | --- | --- | --- |
| **S/N** | **Course Code** | **Course Title** | **Credit Unit** |
| 1 | AGE5311 | Construction and Installation of Irrigation and Drainage Systems | 3 |
| 2 | AGE5312 | Agricultural Land Drainage | 3 |
| 3 | AGE5313 | Solid Waste Engineering and Air Pollution | 3 |
| 4 | AGE5314 | GIS Application to Agriculture | 3 |

**PROCESSING AND STORAGE SPECIALIZATION**

|  |  |  |  |
| --- | --- | --- | --- |
| **S/N** | **Course Code** | **Course Title** | **Credit Unit** |
| 1 | AGE5315 | Renewable Energy Application to Agriculture | 3 |
| 2 | AGE5316 | Food Engineering | 3 |
| 3 | AGE5317 | Engineering Properties and Handling of Agricultural Materials | 3 |
| 4 | AGE5318 | Farm Transportation | 3 |

**SECOND SEMESTER ELECTIVE COURSES**

**FARM POWER AND MACHINERY SPECIALIZATION**

|  |  |  |  |
| --- | --- | --- | --- |
| **S/N** | **Course Code** | **Course Title** | **Credit Unit** |
| 1 | AGE5319 | Agricultural Machinery | 3 |
| 2 | AGE5320 | Theory and Design of Tractor Engine | 3 |

**SOIL AND WATER ENGINEERING SPECIALIZATION**

|  |  |  |  |
| --- | --- | --- | --- |
| **S/N** | **Course Code** | **Course Title** | **Credit Unit** |
| 1 | AGE5321 | Ground Water Technology | 3 |
| 2 | AGE5322 | Operation and Maintenance of Irrigation and Drainage Systems | 3 |

**PROCESSING AND STORAGE SPECIALIZATION**

|  |  |  |  |
| --- | --- | --- | --- |
| **S/N** | **Course Code** | **Course Title** | **Credit Unit** |
| 1 | AGE5323 | Storage of Fresh Fruits and Vegetables | 3 |
| 2 | AGE5324 | Solar Energy Applications to Processing and Storage | 3 |