**Republic of the Philippines**

**SORSOGON STATE COLLEGE**

**Sorsogon City Campus**

**ENGINEERING-ARCHITECTURE DEPARTMENT**

**NEW ENHANCED CURRICULUM**

BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING

 (Adopted CMO No. 34, s. 2008)

**FIRST YEAR - 1ST SEMESTER**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| CODE | SUBJECTS | NO OF HOURS | UNITS | PRE-REQUISITE |
| LEC | LAB |
|  | English Plus |  |  |  |  |
| Math 1 | College Algebra | 3 |  0 |  3 | NONE |
| Math 2 | Plane &Spherical trigonometry | 3 | 0 | 3 | NONE |
| Chem 1 | General Chemistry | 3 | 3 | 4 | NONE |
| Drawing 1 | Engineering Drawing | 1 | 3 | 2 | NONE |
| Eng 1 | Communication Skills | 3 | 0 | 3 | NONE |
| Fil 1 | Sining ng Pakikipagtalastasan | 3 | 0 | 3 | NONE |
| Soc Scie 1 | Taxation and Agrarian Reform | 3 | 0 | 3 | NONE |
| Comp 1 | Computer Fundamentals& Prog’g | 1 | 3 | 2 | NONE |
| P.E 1 | Health and Physical Fitness | 2 | 0 | 2 | NONE |
| NSTP 1 | CWTS 1/ROTC 1 |  |  | (3) | NONE |
|  | TOTAL | 21 | 12 | 25 |  |

**FIRST YEAR - 2ND SEMESTER**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| CODE | SUBJECTS | NO OF HOURS | UNITS | PRE-REQUISITE |
| LEC | LAB |
| Math 3 | Advance algebra | 2 | 0 | 2 | College Algebra |
| Math 4 | Solid Mensuration | 2 |   0 |   2 | College Algebra,Plane&Sph |
| Math 5 | Analytic Geometry | 2 | 0 | 2 | College Algebra,Plane&Sph |
| Eng 2 | Tech., Writing,Reporting & Corr. | 3 | 0 | 3 | English 1 |
| Fil 2 | Pagbasa at Pagsulat sa Iba’t ibang Diskurso | 3 | 0 | 3 | Filipino 1 |
| Hum 1 | Lit. Drama & Visual Art, Music & Dance | 3 | 0 | 3 | NONE |
| Soc Scie 2 | General Psychology | 3 | 0 | 3 |  |
| Drawing 2 | Engineering Drawing 2(CAD 1) | 1 | 3 | 2 | Drawing 1 |
| P.E 2 | Individual Sports | 2 | 0 | 2 | P.E 1 |
| NSTP | CWTS 2/ROTC2 |  |  | (3) | NSTP 1/ROTC 1 |
|  | TOTAL | 21 | 3 | 22 |  |

**SECOND YEAR - 1ST SEMESTER**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| CODE | SUBJECTS | NO OF HOURS | UNITS | PRE-REQUISITE |
| LEC | LAB |
| Math 6 | Differential Calculus | 4 | 0 | 4 | Physics 1 |
| PHS 1 | Physics 1 | 3 |  3 | 4 | Differential Calculus |
| Eng 3 | Speech Communication |  3 | 0 | 3 | English 1 & 2 |
| Hum 2 | Humanities 2 | 3 | 0 | 3 |  |
| Soc Sci 3 | Social Science 3 | 3 | 0 | 3 |  |
| MS 1 | Life & Works of Rizal | 3 | 0 | 3 |  |
| P.E 3 | Team Sports | 2 | 0 | 2 | P.E 1&2 |
|  | TOTAL | 21 | 3 | 22 |  |

**SECOND YEAR - 2ND SEMESTER**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| CODE | SUBJECTS | NO OF HOURS | UNITS | PRE-REQUISITE |
| LEC | LAB |
| PHS 2 | Physics 2 | 3 | 3 | 4 | Physics 1 |
| Math 7 | Integral Calculus | 4 |  0 | 4 | Differential Calculus |
| Math 8 | Probability & Statistic | 3 | 0 | 3 | College Algebra |
| Hum 3 | Humanities 3 | 3 | 0 | 3 |  |
| Soc Sci 4 | Social Science 4 | 3 | 0 | 3 |  |
| Philo | Logic & Philo Analysis | 3 | 0 | 3 |  |
| BES 1 | Environmental Engineering | 3 | 0 | 3 | Chemistry |
| P.E. 4 | Recreational Activities | 2 | 0 | 2 | P.E 1,2,3 |
|  | TOTAL | 24 | 3 | 25 |  |

**THIRD YEAR - 1ST SEMESTER**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| CODE | SUBJECTS | NO OF HOURS | UNITS | PRE-REQUISITE(CO-REQUISITE) |
| LEC | LAB |
| Cad 2 | Computer Aided- Drafting | 1 | 3 | 2 | Third year standing |
| Math 9 | Differential equation | 3 |  0 | 3 | Integral Calculus |
| EE 311 | Fund.of Mat. Science & Eng’g | 3 | 0 | 3 | Gen.Chem. Physics |
| Mech 1 | Statics of Rigid Bodies | 3 | 0 | 3 | Physics 1,Integral cal. |
| EE 312 | Electromagnetic | 3 | 0 | 3 | Physics 2,Integral cal. |
| EC31 | Electrical circuit 1 | 3 | 3 | 4 | Physics 2,Integral cal. |
| EE 313 | Electronic circuits & devices | 2 | 3 | 3 | Physics 2,Integral cal. |
| BES 2 | Engineering economy | 3 | 0 | 3 | Third yr standing |
| CE 310 | Basic Surveying | 1 | 3 | 2 | 3rd yr standing |
|  | TOTAL | 22 | 12 | 26 |  |

**THIRD YEAR - 2ND SEMESTER**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| CODE | SUBJECTS | NO OF HOURS | UNITS | PRE-REQUISITE(CO-REQUISITE) |
| LEC | LAB |
| Math 10 | Advance EngineeringMathematics for EE | 3 | 0 | 3 | Diff. Equation |
| Mech 2 | Dynamic of Rigid Bodies | 3 | 0 | 3 | Statics of rigid bodies |
| EE 321 | Elec. Circuits Analysis & Design | 2 | 3 | 3 | Elec. Circuit & Design |
| EE 322 | Basic Thermodynamics | 3 | 0 | 3 | Integ. Cal & physics 2 |
| EC 32 | Electrical Circuits 2 | 3 | 3 | 4 | Electrical Circuits 1 |
| BES 3 | Safety Management | 1 | 0 | 1 | Third year standing |
| BES 4 | Engineering Management | 3 | 0 | 3 | Third year standing |
| MECH 3 | Mechanics of Deformable Bodies | 3 | 0 | 3 | Statics of rigid Bodies |
|  | TOTAL | 21 | 6 | 23 |  |

**FOURTH YEAR - 1ST SEMESTER**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| CODE | SUBJECTS | NO OF HOURS | UNITS | PRE-REQUISITE(CO-REQUISITE) |
| LEC | LAB |
| EE 411 | Logic Circuit& Switching Theory | 3 | 3 | 4 | Elec. Cir. Anal. & Design |
| EE 412 | DC machinery | 2 | 3 | 3 | Electrical Circuits 2 |
| EE 413 | Principles of Communication | 3 | 3 | 4 | Elec. Cir., Anal. DesignAdv Eng’g Math |
| EE 414 | Control System Analysis | 3 | 3 | 3 | Adv Eng’g Math |
| EC 41 | Electrical circuit 3 | 2 | 3 | 3 | Electrical Circuit 2 |
| EE 415 | Mechanics of fluids | 2 | 0 | 2 | Mechanics of Deformable Bodies |
| Math 11 |  Numerical Methods w/ Comp. Applications | 2 | 3 | 3 | Adv.Eng’g Math |
|  | TOTAL | 17 | 15 | 22 |  |

**FOURTH YEAR - 2ND SEMESTER**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| CODE | SUBJECTS | NO OF HOURS | UNITS | PRE-REQUISITE(CO-REQUISITE) |
| LEC | LAB |
| EE 421 | Microprocessor System | 2 | 1 | 3 | Logic circuit & switching Theory |
| EE 422 | AC machinery | 3 | 3 | 4 | DC machinery,elec circuit 3 |
| EE 423 | Industrial electronics | 3 | 3 | 4 | Adv.Eng’g Math |
|  |  |  |  |  | Adv Eng’g Math |
| EE 424 | EE laws, contracts and ethics | 2 | 0 | 2 | Fourth year standing |
| EE 425 | Professional elective 1 | 3 | 0 | 3 | Fourth year standing |
| EE 426 | AC Apparatus and Devices | 2 | 3 | 3 | Co-Requisite AC machinery |
| EE 427 | Research Methods for EE | 1 | 0 | 1 | Fourth year standing |
| BES 5 | Construction & Project Management | 3 | 0 | 3 | Fourth year standing |
|  | TOTAL | 19 | 10 | 23 |  |

**FOURTH YEAR - SUMMER**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| COURSECODE | COURSE TITLE | NO OF HOURS | UNITS | PRE-REQUISITE(CO-REQUISITE) |
| LEC | LAB |

 **FIFTH YEAR - 1ST SEMESTER**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| CODE | SUBJECTS | NO OF HOURS | UNITS | PRE-REQUISITE(CO-REQUISITE) |
| LEC | LAB |
| EE 511 | Instrumentation & control | 2 | 1 | 3 | Industrial electronics |
| EE 512 | Elec. Trans & distribution system | 3 | 3 | 4 | AC machinery  |
| EE 513 | Information technology | 2 | 3 | 3 | Principles of comm. |
| EE 514 | Professional elective 2 | 3 |  0 | 3 | Fifth year standing |
| EE 515 | Illumination engineering design | 2 | 3 | 3 | Co-requisite elec, mach design |
| EE 516 | Electrical system design | 2 | 3 | 3 | AC App. &Devices |
| EE 517 | RESEARCH PROJECT | 0 | 3 | 1 | Research Methods for EE |
|  | TOTAL |  14 |  16 |  20 |  |

 **FIFTH YEAR - 2ND SEMESTER**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| CODE | SUBJECTS | NO OF HOURS | UNITS | PRE-REQUISITE(CO-REQUISITE) |
| LEC | LAB |
| EE 521 | Elec equip. Operation & Main | 3 | 0 | 3 | AC App. & devices |
| EE 522 | Power plant engineering | 2 | 3 | 3 | Co-requisite pow. Sys. |
| EE 523 | Seminars & field trip | 0 | 3 | 1 | Fifth year standing |
| EE 524 | Professional elective 3 | 3 |  0 | 3 |  |
| EE 525 | Professional elective 4 | 3 | 0 | 3 |  |
| EE 526 | EE safety | 1 | 0 | 1 | Safety management |
| EE 527 | Power system analysis & design | 3 | 3 | 4 | Elec. System design |
| EE 528 | Electrical engineering compre. | 3 | 0 | 3 | Fifth year standing |
|  | TOTAL |  18 |  9 |  21 |  |

Total no. of units = 234