

Bachelor of Science in Electrical Engineering (BSEE)

Effective: June 2013-2014

| FIRST YEAR | FIRST SEMESTER | | | | |
|--------------|--|-----------|----------|-----------|--------------|
| SUBJECT CODE | DESCRIPTION | LEC | LAB | UNITS | PREREQUISITE |
| Math 101 | College Algebra | 3 | 0 | 3 | None |
| Math 103 | Plane and Spherical Trigonometry | 3 | 0 | 3 | None |
| Chem 101 | General Chemistry 1 | 3 | 3 | 4 | None |
| ES 101 | Computer Fundamentals with Software Applications | 2 | 3 | 3 | None |
| Engl 101 | Communication Arts I | 3 | 0 | 3 | None |
| Fili 101 | Komunikasyon sa Akademikong Filipino | 3 | 0 | 3 | None |
| Human 101 | Arts & Appreciation | 3 | 0 | 3 | None |
| PE 101 | Physical Fitness & Health | 2 | 0 | 2 | None |
| NSTP 1 | National Service Training Program | 3 | 0 | 3 | None |
| | TOTAL | 25 | 6 | 27 | |

| FIRST YEAR | SECOND SEMESTER | | | | |
|--------------|--|-----------|----------|-----------|--------------------|
| SUBJECT CODE | DESCRIPTION | LEC | LAB | UNITS | PREREQUISITE |
| Math 102 | Advanced Algebra | 2 | 0 | 2 | Math 101 |
| Math 104 | Analytic Geometry | 3 | 0 | 3 | Math 101, Math 103 |
| Math 105 | Solid Mensuration | 3 | 0 | 3 | Math 101, Math 103 |
| ES 102 | Computer Programming | 2 | 3 | 3 | ES 101 |
| Engl 102 | Communication Arts II | 3 | 0 | 3 | Engl. 101 |
| Fili 102 | Pagbasa't Pagsulat Tungo sa Pananaliksik | 3 | 0 | 3 | Fili 101 |
| Soc. Sci 101 | Philippine History | 3 | 0 | 3 | None |
| PE 102 | Rhythmic Activities | 2 | 0 | 2 | PE 101 |
| NSTP 2 | National Service Training Program | 3 | 0 | 3 | NSTP 1 |
| | TOTAL | 24 | 3 | 25 | |

| SECOND YEAR | FIRST SEMESTER | | | | |
|--------------|---|-----|-----|-------|--------------------------|
| SUBJECT CODE | DESCRIPTION | LEC | LAB | UNITS | PREREQUISITE |
| Math 106 | Differential Calculus | 5 | 0 | 5 | Math102,Math104, Math105 |
| Math 110 | Probabilities & Statistics | 3 | 0 | 3 | Math 102 |
| ES 103 | Engineering Drawing | 0 | 6 | 2 | None |
| Phys 101 | College Physics 1 | 3 | 3 | 4 | Math 102, Math 103 |
| Engl 103 | Technical Communication w/ Jeep Start 1 | 3 | 0 | 3 | Engl. 102 |
| Soc.Sci. 102 | Principles of Economics, Taxation & Agrarian Reform | 3 | 0 | 3 | None |
| Philo 101 | Logic | 3 | 0 | 3 | None |

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|--------------|-----------------------------------|-----------|----------|-----------|--------|
| Human 102 | The Image of the Filipino in Arts | 3 | 0 | 3 | None |
| PE 103 | Individual & Dual Sports | 2 | 0 | 2 | PE 101 |
| TOTAL | | 25 | 9 | 28 | |

| SECOND YEAR | | SECOND SEMESTER | | | |
|---------------------|--|------------------------|------------|--------------|---------------------|
| SUBJECT CODE | DESCRIPTION | LEC | LAB | UNITS | PREREQUISITE |
| Math 107 | Integral Calculus | 5 | 0 | 5 | Math 106 |
| ES 104 | Computer Aided Drafting | 1 | 3 | 2 | ES 103 |
| Phys 102 | College Physics 2 | 3 | 3 | 4 | Phys 101 |
| Engl.107 | Advanced Grammar and Public Speaking w/ Jeep Start 2 | 3 | 0 | 3 | Engl. 103 |
| Soc. Sci 103 | General Psychology | 3 | 0 | 3 | None |
| Soc.Sci.104 | Politics and Governance w/ Phil. Constitution | 3 | 0 | 3 | None |
| Rizal 101 | Life and Works of Rizal | 3 | 0 | 3 | None |
| PE 104 | Team Sports | 2 | 0 | 2 | PE 101 |
| TOTAL | | 23 | 6 | 25 | |

| THIRD YEAR | | FIRST SEMESTER | | | |
|---------------------|---------------------------|-----------------------|------------|--------------|---------------------|
| SUBJECT CODE | DESCRIPTION | LEC | LAB | UNITS | PREREQUISITE |
| Math 108 | Differential Equations | 3 | 0 | 3 | Math 107 |
| Math 111 | Discrete Mathematics | 3 | 0 | 3 | Math 102, Math 110 |
| ES 105 | Statics of Rigid Bodies | 3 | 0 | 3 | Phys 101 & Math 107 |
| ES 110 | Environmental Engineering | 3 | 0 | 3 | Chem. 101 |
| ES 111 | Safety Management | 3 | 0 | 3 | 3rd Year Standing |
| ES 112 | Engineering Economy | 3 | 0 | 3 | 3rd Year Standing |
| ECE 101 | Electronics 1 Lec | 3 | 0 | 3 | Phys 102, Math 107 |
| ECE 101L | Electronics 1 Lab | 0 | 3 | 1 | Phys 102, Math 107 |
| EE 101 | Circuits 1 Lec | 3 | 0 | 3 | Phys 102, Math 107 |
| EE 101L | Circuits 1 Lab | 0 | 3 | 1 | Phys 102, Math 107 |
| TOTAL | | 24 | 6 | 26 | |

| THIRD YEAR | | SECOND SEMESTER | | | |
|---------------------|--------------------------------|------------------------|------------|--------------|---------------------|
| SUBJECT CODE | DESCRIPTION | LEC | LAB | UNITS | PREREQUISITE |
| Math 109 | Advanced Engineering Math | 3 | 0 | 3 | Math 108 |
| ES 106 | Dynamics of Rigid Bodies | 3 | 0 | 3 | ES 105 |
| ES 107 | Mechanics of Deformable Bodies | 3 | 0 | 3 | ES 105 |
| ES 113 | Engineering Management | 3 | 0 | 3 | 3rd Year Standing |

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|----------|--------------------------|-------------|-------------|-----------|--------------------|
| ES 109 | Basic Thermodynamics | 3 | 0 | 3 | Phys 102, Math 107 |
| ECE 102 | Electronics 2 | 3 | 0 | 3 | ECE 101, ECE 101L |
| ECE 102L | Electronics 2 Lab | 0 | 3 | 1 | ECE 101, ECE 101L |
| EE 102 | Circuits 2 | 3 | 0 | 3 | EE 101, EE 101L |
| EE 102L | Circuits 2 Lab | 0 | 3 | 1 | EE 101, EE101L |
| EE 107 | Electromagnetics | 3 | 0 | 3 | Phys 102, Math 107 |
| Jeep 01 | Jeep Start Accelerate 01 | 1.5 | 4.5 | 3 | Engl 107 |
| | TOTAL | 25.5 | 10.5 | 29 | |

| FOURTH YEAR | FIRST SEMESTER | | | | |
|---------------------|---|-------------|-------------|--------------|-----------------------------|
| SUBJECT CODE | DESCRIPTION | LEC | LAB | UNITS | PREREQUISITE |
| Math 112 | Numerical Methods | 3 | 3 | 4 | Math 109, ES 105 |
| ES 108 | Fluid Mechanics | 2 | 3 | 3 | ES 107 & Math 108 |
| ES 114 | Engineering Materials | 3 | 0 | 3 | Phys 102, Chem 101 |
| EE 103 | Circuits 3 Lec | 3 | 0 | 3 | EE 102, EE 102L |
| EE 103L | Circuits 3 Lab | 0 | 3 | 1 | EE 102, EE 102L |
| EE 104 | DC Machinery | 2 | 3 | 3 | EE 102, EE 102L |
| ECE 105 | Logic Circuits and Switching Theory | 3 | 0 | 3 | ECE 101, ECE 101L, Math 111 |
| ECE 105L | Logic Circuits and Switching Theory Lab | 0 | 3 | 1 | ECE 101, ECE 101L, Math 111 |
| ECE 110 | Principles of Communications | 3 | 3 | 4 | ECE 102/ ECE 102L, Math 109 |
| Jeep 02 | Jeep Start Accelerate 02 | 1.5 | 4.5 | 3 | Jeep 01 |
| | TOTAL | 20.5 | 22.5 | 28 | |

| FOURTH YEAR | SECOND SEMESTER | | | | |
|---------------------|----------------------------------|------------|------------|--------------|-------------------------------------|
| SUBJECT CODE | DESCRIPTION | LEC | LAB | UNITS | PREREQUISITE |
| ECE 107 | Industrial Electronics | 3 | 0 | 3 | ECE 102/ECE 102L & ECE 103/ECE 103L |
| ECE 107L | Industrial Electronics Lab | 0 | 3 | 1 | ECE 102/ECE 102L & ECE 103/ECE 103L |
| ECE 109 | Feedback and Control Systems | 3 | 0 | 3 | Math 109 |
| ECE 109L | Feedback and Control Systems Lab | 0 | 3 | 1 | Math 109 |
| EE 105 | AC Machinery | 3 | 3 | 4 | EE 103/EE 103L, EE 104 |

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|--------------|--|-----------|-----------|-----------|---------------------------|
| EE 106 | AC Apparatus and Devices | 2 | 3 | 3 | EE 103/EE 103L, EE 104 |
| EE 108 | EE Safety | 2 | 0 | 2 | ES 111 |
| EE 119 | EE Elective 1 | 3 | 0 | 3 | 4th Year Standing |
| EE 120 | EE Elective 2 | 3 | 0 | 3 | 4th Year Standing |
| ES 116 | Engineering Special Topics/ Seminar | 3 | 0 | 3 | 4th Year Standing |
| TOTAL | | 22 | 12 | 26 | |

| SUMMER | | | | | |
|---------------|--|--|--|-------------|------------------------|
| EE 200 | EE PRACTICUM (Company Exposure and Reporting) | | | 240 hrs. | 3 4th Year Standing |

| FIFTH YEAR SUBJECT CODE | FIRST SEMESTER | | | | |
|--|--|------------|------------|--------------|---------------------------|
| | DESCRIPTION | LEC | LAB | UNITS | PREREQUISITE |
| CpE 108 | Microprocessor System | 3 | 3 | 4 | ECE 102, ECE 105 |
| EE 109 | Instrumentation and Control | 2 | 3 | 3 | ECE 107/ ECE 107L |
| EE 117 | Information and Communication Technology | 2 | 3 | 3 | ECE 109 |
| EE 125 | Electrical Transmission and Distribution System | 3 | 3 | 4 | EE 105, EE 103/EE 103L |
| EE 110 | Illumination Engineering Design | 2 | 3 | 3 | EE 106 |
| EE 111 | Electrical System Design | 2 | 3 | 3 | EE 106 |
| EE 112 | EE Project Study 1 | 1 | 6 | 3 | 5th Year Standing |
| EE 121 | v | 3 | 0 | 3 | 5th Year Standing |
| TOTAL | | 18 | 24 | 26 | |

| FIRST YEAR SUBJECT CODE | SECOND SEMESTER | | | | |
|--|--|------------|------------|--------------|----------------------|
| | DESCRIPTION | LEC | LAB | UNITS | PREREQUISITE |
| EE 113 | EE Project Study 2 | 1 | 6 | 3 | EE 112 |
| EE 114 | Electrical Equipment Operation & Maintenance | 3 | 0 | 3 | EE 106 |
| EE 115 | Power Plant Engineering | 2 | 3 | 3 | 5th Year Standing |
| EE 116 | Power System Analysis & Design | 3 | 3 | 4 | EE 111 |
| EE 118 | Electrical Engineering Laws, Code, Ethics, etc. | 3 | 0 | 3 | 5th Year Standing |
| EE 122 | Professional Elective 4 | 3 | 0 | 3 | 5th Year Standing |
| EE 100 | EE Review Program | 3 | 0 | 3 | 5th Year Standing |
| TOTAL | | 18 | 12 | 22 | |