## TSU Electrical and Electronics Engineering Bachelor Program

## Tab.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Year; Semester | Course(Department, Number, Title)List all courses in the program by term starting with the first term of the first year and ending with the last term of the final year | Indicate Whether Course is Required, Elective or a Selected Elective by an R, an E or an SE. 1 | Subject Area (Credit Hours) | Last Two Terms the Course was Offered; Year and, Semester, or Quarter | Maximum Section Enrollment for the Last Two Terms the Course was Offered 2 |
| Math & Basic Science | Engineering Topics Check if Contains Significant Design () | General Education | Other |
| 1;1 | (MATH101) Calculus 1 | R | 5 |   |   |   |  |  |
|   | (EEE101) Introduction into Electrical and Electronics Engineering | R |  | 5() |  |   |  |  |
|   | Language 1 (English) | R |  |   | 5 |   |  |  |
|  | (PHYS101) Principles of Physics 1 | R | 5 |  |  |  |  |  |
|  | (PHYS101L)Principles of Physics Laboratory 1 | R | 3 |  |  |  |  |  |
|   | (BIOL101) Introduction into Biology | R | 5 |  |  |  |  |  |
| 1;2 | (PHYS102) Principles of Physics 2 | R | 5 |   |  |   |  |  |
|   | (PHYS102L) Principles of Physics Laboratory 2 | R | 3 |   |   |   |  |  |
|   | Language 2 (English) | R |  |   | 5 |   |  |  |
|  | Economics | R |  |  | 5 |  |  |  |
|  | (MATH 102) Calculus 2 | R | 5  |  |  |  |  |  |
|   | Humanities (History) | SE |  |  | 5 |   |  |  |
|   | Humanities (Archeology) | SE |  |  | 5 |  |  |  |
| 2;1 | (MATH201) Linear Algebra | R | 5 |  |  |  |  |  |
|   | Language 3(English)  | R |  |  | 5 |  |  |  |
|  | (COMP201) Introduction to Computer Programming in C | R |  | 5 |  |  |  |  |
|  | (EEE201) Engineering Electronics | R |  | 5 |  |  |  |  |
|  | (EEE201L) Engineering Electronics Laboratory | R |  | 3 |  |  |  |  |
|  | (MATH202) Complex Analysis, Fourier Analysis | R | 5 |  |  |  |  |  |
|   | Humanities (Introduction into Art) | SE |  |  | 5 |  |  |  |
| Tab. Electrical and Electronics Engineering (continued) |
| Year; Semester | Course(Department, Number, Title)List all courses in the program by term starting with the first term of the first year and ending with the last term of the final year | Indicate Whether Course is Required, Elective or a Selected Elective by an R, an E or an SE. 1 | Subject Area (Credit Hours) | Last Two Terms the Course was Offered; Year and, Semester, or Quarter | Maximum Section Enrollment for the Last Two Terms the Course was Offered 2 |
| Math & Basic Science | Engineering Topics Check if Contains Significant Design () | General Education | Other |
| 2;2 | (EEE202)Electrical Circuits I | R |   | 5 |   |   |  |  |
|   | (MATH203) Calculus 3 | R | 5 |  |   |   |  |  |
|   | Language (English) (advanced level) | R |  |   | 5 |   |  |  |
|  | (AE) Methods of Analysis | R | 5 |  |  |  |  |  |
|  | Humanities (Religious Studies) | SE |  |  | 5 |  |  |  |
|   | Humanities (Georgian Literature) | SE |   |   | 5 |   |  |  |
| 3;1 | (EEE301)Computational and Statistical Methods for Electrical and Electronics Engineering | R | 5 |  |   |   |  |  |
|   | (EEE302) Electrical Circuits II | R |   | 5 |   |   |  |  |
|   | (MATH301) Numerical Methods | R | 5  |  |   |   |  |  |
|   | (EEE303) Digital Systems | R |  | 5 () |  |  |  |  |
|  | (EEE304) Power systems I | R |  | 5 |  |  |  |  |
|   | Explorations: Humanities ( Philosophy) | R |   |   | 5 |   |  |  |
| Tab. Electrical and Electronics Engineering (continued) |
| Year; Semester | Course(Department, Number, Title)List all courses in the program by term starting with the first term of the first year and ending with the last term of the final year | Indicate Whether Course is Required, Elective or a Selected Elective by an R, an E or an SE. 1 | Subject Area (Credit Hours) | Last Two Terms the Course was Offered; Year and, Semester, or Quarter | Maximum Section Enrollment for the Last Two Terms the Course was Offered 2 |
| Math & Basic Science | Engineering Topics Check if Contains Significant Design () | General Education | Other |
| 3;2 | (EEE305) Electrical and Magnetic Fields for Engineers | R |   | 5 |   |   |  |  |
|   | (EEE306) Linear Systems and Signal Theory | R |  | 5 |  |  |  |  |
|  | (EEE307) Power systems II | R |  | 5 |  |  |  |  |
|  | (EEE308) Digital System Design | R |  | 5 () |  |  |  |  |
|   | Explorations: Mathematics in Science and Art | R |  |  | 5 |  |  |  |
|  | European Institutions(European values) | R |  |   | 5 |  |  |  |
| 4;1 | (EEE401)Antennas and EM Wave Propagation | R |   | 5 |   |   |  |  |
|   | (EEE402, EEE402L) Electrical Devices and Sensor Systems | R |  | 5 () |  |  |  |  |
|   | Explorations: Microeconomics of Competitiveness | R |  |  | 5 |   |  |  |
|  | (EEE403) Electrical Materials and Devices | R |  | 5 |  |  |  |  |
|  | (EEE404) PRE Senior Design Project | R |  | 2 |  |  |  |  |
|  | From Elective Labs | E |  | 3 () |  |  |  |  |
|  | From Elective Labs | E |  | 3 () |  |  |  |  |
| 4;2 | (EEE406) Senior Design Project | R |   | 8() |   |   |  |  |
|   | (EEE405) Applied Electrodynamics | R |  | 5 |   |   |  |  |
| From Elective Courses  | E |  | 5 () |   |   |  |  |
| From Elective Courses | E |  | 5 () |  |  |  |  |
| From Elective Courses | E |  | 5 () |  |  |  |  |
|  |
| TOTALS-ABET BASIC-LEVEL REQUIREMENTS | 61 | 109 | 70 |   |   |   |
| OVERALL TOTAL CREDIT HOURS FOR COMPLETION OF THE PROGRAM = 240 |   |   |   |   |   |   |
| Must satisfy one set | Minimum semester credit hours |  |  |   |   |   |   |
| Minimum percentage |  |  |   |   |   |   |
|  |  |  |  |  |   |   |   |   |

|  |
| --- |
| **Elective Courses** |
|  | (EEE407L) Device Control Laboratory | 3 |
|  | (EEE408L) Embedded OS Laboratory | 3 |
|  | (EEE409L) Remote Laboratory | 3 |
|  | (EEE410) Multicore Programming | 5 |
|  | (EEE411) Microprocessors | 5 |
|  | (EEE412) Biomedical Electronic Equipment | 5 |
|  | (EEE413) Computer Modeling and Data Visualization | 5 |
|  | (EEE414) Energy conversion and alternative source of energy | 5 |
|  | (EEE415) Embedded SW | 5 |
|  | (EEE416) Embedded Communication | 5 |
|  | (EEE417) Metrology | 5 |