## TSU Electrical and Electronics Engineering Bachelor Program

## Tab.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 | Calculus | | R | 7 |  |  |  |  |  |
|  | Introduction into Electrical and Electronics Engineering | | R |  | 6 |  |  |  |  |
|  | Language 1 (English) | | R |  |  | 6 |  |  |  |
|  | Principles of Physics 1 | | R | 6 |  |  |  |  |  |
|  | Principles of Physics Laboratory 1 | | R | 2 |  |  |  |  |  |
|  | History | | R |  |  | 6 |  |  |  |
| 1;2 | Principles of Physics 2 | | R | 6 |  |  |  |  |  |
|  | Principles of Physics Laboratory 2 | | R | 2 |  |  |  |  |  |
|  | Language 2 (English) | | R |  |  | 6 |  |  |  |
|  | Economics | | R |  |  | 6 |  |  |  |
|  | Linear Algebra and Analytical Geometry | | R | 6 |  |  |  |  |  |
|  | Introduction into Biology | | R |  |  | 3 |  |  |  |
|  | Archeology | | R |  |  | 3 |  |  |  |
| 2;1 | Mathematical Analysis | | R | 6 |  |  |  |  |  |
|  | Language 3(English) | | R |  |  | 6 |  |  |  |
|  | Programming in C | | R | 6 |  |  |  |  |  |
|  | Engineering Electronics | | R |  | 6 |  |  |  |  |
|  | Engineering Electronics Laboratory | | R |  | 2 |  |  |  |  |
|  | Religious Studies | | R |  |  | 3 |  |  |  |
|  | Introduction into Art | | R |  |  | 3 |  |  |  |
| 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 | Electrical Circuits I | | R |  | 6 |  |  |  |  |
|  | Complex Analysis, Fourier Analysis | | R | 6 |  |  |  |  |  |
|  | Language (English) (advanced level) | | R |  |  | 6 |  |  |  |
|  | Numerical Methods | | R | 6 |  |  |  |  |  |
|  | European Institutions(European values) | | R |  |  | 6 |  |  |  |
|  | Humanities (Georgian Literature) | | R |  |  | 3 |  |  |  |
| 3;1 | Computational and Statistical Methods for Electrical and Electronics Engineering | | R |  | 6 |  |  |  |  |
|  | Electrical Circuits II | | R |  | 6 |  |  |  |  |
|  | Differntial Equations | | R | 6 |  |  |  |  |  |
|  | Digital Systems | | R |  | 6 () |  |  |  |  |
|  | Explorations: Humanities ( Philosophy) | | R |  |  | 6 |  |  |  |
| 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 | Electrical and Magnetic Fields for Engineers | | R |  | 6 |  |  |  |  |
|  | Linear Systems and Signal Theory | | R |  | 6 |  |  |  |  |
|  | Explorations: Mathematics in Science and Art | | R |  |  | 6 |  |  |  |
|  | Electrical Materials and Devices | | E |  | 6 |  |  |  |  |
|  | From Elective Courses | | E |  | 6 () |  |  |  |  |
|  | From Elective Labs | | E |  | 2 () |  |  |  |  |
| 4;1 | Antennas and EM Wave Propagation | | R |  | 6 |  |  |  |  |
|  | Applied Electrodynamics | | R |  | 6 |  |  |  |  |
|  | Project: Design of Electrical Devices | | R |  | 6 () |  |  |  |  |
|  | Explorations: Microeconomics of Competitiveness | | R |  |  | 6 |  |  |  |
|  | From Elective Courses | | E |  | 6 () |  |  |  |  |
|  | From Elective Labs | | E |  | 2 () |  |  |  |  |
| 4;2 | **2 Courses** From Elective Courses or Bachelor Diploma Thesis | | E |  | 12 |  |  |  |  |
|  | **University Free Credits** | | E |  | 12 |  |  |  |  |
|  | | | | | | | | | |
| TOTALS-ABET BASIC-LEVEL REQUIREMENTS | | | | 59 | 114 | 75 |  |  |  |
| OVERALL TOTAL CREDIT HOURS FOR COMPLETION OF THE PROGRAM = 240 | | | |  |  |  |  |  |  |
| Must satisfy one set | Minimum semester credit hours | | |  |  |  |  |  |  |
| Minimum percentage | | |  |  |  |  |  |  |
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| **Elective Courses** | | |
|  | Power Systems | 6 |
|  | Microprocessors | 6 |
|  | Device Control Laboratory | 2 |
|  | Electrical Devices and Sensor Systems Laboratory | 2 |
|  | Biomedical Electronic Equipment | 6 |
|  | Computer Modeling and Data Visualization | 6 |
|  | Energy conversion and alternative source of energy | 6 |
|  | Digital system Design | 6 |
|  | Bachelor Diploma Thesis | 12 |
|  | **University Free Credits** | **12** |