

**SOUTHERN ILLINOIS UNIVERSITY  
EDWARDSVILLE**

**Computer Engineering Pathway**

**Rend Lake College  
Associate in Engineering Science Degree**

**Fall Year 1**

| RLC Course   |                                | Hours     |
|--------------|--------------------------------|-----------|
| CSCI 1104    | Introduction to Programming    | 4         |
| ENGL 1101    | Rhetoric and Composition I     | 3         |
| PHY 1103     | University Physics I           | 5         |
| MATH 1121    | Calculus and Analytic Geometry | 5         |
| <b>Total</b> |                                | <b>17</b> |

**Spring Year 1**

| RLC Course   |                                   | Hours     |
|--------------|-----------------------------------|-----------|
| ENGG 1101    | Graphics                          | 4         |
| ENGL 1102    | Rhetoric and Composition II       | 3         |
| PHY 1104     | University Physics II             | 5         |
| MATH 2122    | Calculus and Analytic Geometry II | 5         |
| <b>Total</b> |                                   | <b>17</b> |

**Fall Year 2**

| RLC Course   |                                    | Hours     |
|--------------|------------------------------------|-----------|
| CHE 1103     | Inorganic Chemistry                | 5         |
| COMM 1101    | Principles of Effective Speaking   | 3         |
| MATH 2123    | Calculus and Analytic Geometry III | 4         |
| PHY 2101     | Statics                            | 3         |
| PHIL 2101    | Logic                              | 3         |
| <b>Total</b> |                                    | <b>18</b> |

**Spring Year 2**

| RLC Course   |                                 | Hours     |
|--------------|---------------------------------|-----------|
| BIO 1100     | Biology for Non-Majors          | 4         |
| MATH 2130    | Differential Equations          | 3         |
| ECON 2101    | Principles of Economics I       | 3         |
| PHY 2102     | Dynamics                        | 3         |
| PHY 2121     | Electrical Engineering Circuits | 4         |
| <b>Total</b> |                                 | <b>17</b> |

**Associate in Engineering Science Total 69**

**Southern Illinois University Edwardsville  
Bachelor of Science Degree**

**Summer Year 3**

| SIUE Course  |                       | Hours    |
|--------------|-----------------------|----------|
| CS 150       | Intro to Computing II | 3        |
| ECE 211      | Circuit Analysis II   | 3        |
| <b>Total</b> |                       | <b>6</b> |

**Fall Year 3**

| SIUE Course  |                        | Hours     |
|--------------|------------------------|-----------|
| ECE 282      | Digital Systems Design | 4         |
| ECE 351      | Signals and Systems    | 3         |
| ECE 352      | Stochastic Processes   | 3         |
| CS 240       | Intro to Computing III | 3         |
| ECE 326      | Electronic Circuits I  | 4         |
| <b>Total</b> |                        | <b>17</b> |

**Spring Year 3**

| SIUE Course  |                                    | Hours     |
|--------------|------------------------------------|-----------|
| ECE 381      | Microcontrollers                   | 3         |
| ECE 483      | Adv. Digital Systems Engr.         | 3         |
| ECE/CS XXX   | Elective I                         | 3         |
| CS 286       | Intro to Comp. Org. & Architecture | 3         |
| MATH 224     | Discrete Mathematics               | 3         |
| <b>Total</b> |                                    | <b>15</b> |

**Fall Year 4**

| SIUE Course         |                                     | Hours     |
|---------------------|-------------------------------------|-----------|
| ECE 404             | ECE Design                          | 3         |
| CS 314              | Operating Systems                   | 3         |
| ECE/CS XXX          | Elective II                         | 3         |
| PHIL 323            | Engr. Ethics & Professionalism      | 3         |
| BFPA/EREG           | Breadth Fine & Performing Arts/EREG | 3         |
| EH XXX <sup>3</sup> | Experience Health                   | 0-2       |
| <b>Total</b>        |                                     | <b>15</b> |

**Spring Year 4**

| SIUE Course  |                               | Hours     |
|--------------|-------------------------------|-----------|
| ECE 405      | ECE Design Laboratory         | 3         |
| ECE/CS XXX   | Elective III                  | 3         |
| CS 340       | Algorithms & Data Structures  | 3         |
| IE 345       | Engineering Economic Analysis | 3         |
| IS/ERGU      | Interdisciplinary Course/ERGU | 3         |
| <b>Total</b> |                               | <b>15</b> |

**Bachelor of Science Total 137**

<sup>3</sup>Options are available. Consult with SIUE advisor.

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School of Engineering Transfer Credit Advisory Notes:

Students must complete 50% or more of their requirements at SIUE.

NOTE: Student must apply for admission to upper-division classes before starting their junior year at SIUE.

The form for 'APPLICATION FOR ADMISSION TO UPPER-DIVISION' must be submitted by the deadline to the academic advisor in the School of Engineering at SIUE.

Students must earn 60 hours from a senior institution for graduation requirements. If students take all SIUE junior and senior level courses, as stated above, at SIUE, they will meet this requirement. Please note: deviating from the planned schedule above may jeopardize this requirement.

SIUE may accept transfer "D" grades, however, in the School of Engineering, a grade of "C" or better is required in all chemistry, computer science, mathematics, physics, and engineering courses applied to major or minor requirements. A course that transfers as 1XX, 2XX, 3XX or TRF 1XX, TRF 2XX, TRF 3XX may require a course description and/or syllabus for further evaluation.

A course that satisfies both the ERGU and EREG attribute requirement will only be counted as one attribute and not both.

Interdisciplinary Studies (IS) Courses must be taken at the junior/senior level class standing. This requirement is not waived with completion of transfer associate degree or IAI-GECC. It is recommended that students choose a course to meet this general education requirement AND Global Culture Race and Equity Experience (EREG). Please see the SIUE advisor for a current list of course options.