## B.S. in Software Engineering

## Plan of Study (BSSE)

## Planning Your Course Progression

Engineering courses (ENGR, ESCI, ELEC, AERO, MECH, CESC) are offered four times a year. Other supporting courses (i.e., Calculus, Physics, English, etc.) are offered more frequently. The suggested Plan of Study shows a sequence of courses for a typical four- year program. There are four terms a year. In a given year there are four tracks that these terms are offered. For example, the first track starts with term 1 in August and then progresses with term 2 in October, term 3 in January and then term 4 in March. The other three tracks follow the same progression but with different start dates for the first term as indicated in the figure. BSE--- students should follow this approach when planning their course progression.

## Year One

| Term 1 | Credits |  |
| :--- | :--- | ---: |
| ENGR 101 | Introduction to Engineering | 3 |
| CPSC 222 | Introduction to Discrete Structures | 3 |
| CPSC 223 | Scientific Programming in C | 3 |
|  | Credits Subtotal | $\mathbf{9 . 0}$ |
| Term 2 |  |  |
| CPSC 225 | Computer Science II | 3 |
| CPSC 227 | Computer Science II Laboratory | 1 |
| MATH 241 | Calculus and Analytical Geometry I | 4 |
|  | Credits Subtotal |  |
| Term 3 |  | $\mathbf{8 . 0}$ |
| MATH 242 | Calculus and Analytical Geometry II |  |
| ENGL 123 | English Composition |  |
|  | Humanities Lower-Level (HUMN) | 4 |
|  | Credits Subtotal | 3 |
| Term 4 |  | 3 |
| COMD 219 | Speech | $\mathbf{1 0 . 0}$ |
| PHYS 150 | Physics I for Engineers |  |
|  | Credits Subtotal | 3 |
|  | Credits Total: | 3 |


| Year Two |  |  |
| :--- | :--- | ---: |
| Term 1 |  | Credits |
| PHYS 250 | Physics III for Engineers | 3 |
| PHYS 253 | Physics Laboratory for Engineers | 2 |
| SWEN 300 | Software Engineering Practices | 3 |
|  | Credits Subtotal | $\mathbf{8 . 0}$ |


| Term 2 |  | 3 |
| :--- | :--- | ---: |
| CESC 220 | Digital Circuit Design | 1 |
| CESC 222 | Digital Circuit Design Laboratory | 3 |
| STAT 412 | Probability and Statistics | 3 |
|  | Credits Subtotal | $\mathbf{7 . 0}$ |

## Term 3

| CESC 320 | Microprocessor Systems | 3 |
| :--- | :--- | ---: |
| CESC 322 | Microprocessor Systems Laboratory | 1 |
|  | Upper-Level MATH Elective (MATH 432) | 3 |
|  | Credits Subtotal | $\mathbf{7 . 0}$ |

Term 4
ENGL 221 Technical Report Writing3

| Psychology Lower-Level | 3 |
| :--- | ---: |
| Credits Subtotal | $\mathbf{6 . 0}$ |
| Credits Total: | $\mathbf{2 8 . 0}$ |

## Year Three

| Term 1 |  | Credits |
| :---: | :---: | :---: |
| CPSC 315 | Data Structures and Analysis of Algorithms | 3 |
| CPSC 362 | Computing Theory | 3 |
| CPSC 317 | Files and Database Systems | 3 |
|  | Credits Subtotal | 9.0 |
| Term 2 |  |  |
| CPSC 332 | Organization of Programming Languages | 3 |
| SWEN 310 | Analysis and Design of Software Systems | 3 |
| CPSC 420 | Operating Systems | 3 |
|  | Credits Subtotal | 9.0 |
| Term 3 |  |  |
| CESC 470 | Computer Architecture | 3 |
| SWEN 320 | Software Construction | 3 |
|  | Credits Subtotal | 6.0 |
| Term 4 |  |  |
|  | Specified Elective (CESC 300) | 3 |
|  | Humanities Upper-Level (HUMN) | 3 |
|  | Credits Subtotal | 6.0 |
|  | Credits Total: | 30.0 |
| Year Four |  |  |
| Term 1 |  | Credits |
| CPSC 432 | Information and Computer Security | 3 |
| CESC 450 | Real-Time Embedded Systems | 3 |
| SWEN 420 | Software Quality Assurance | 3 |
|  | Credits Subtotal | 9.0 |
| Term 2 |  |  |
|  | Specified Elective (CPSC 335) | 3 |
|  | Specified Elective (SWEN 410) | 3 |
|  | CPSC Upper-Level Elective (CPSC 462) | 3 |
|  | Credits Subtotal | 9.0 |
| Term 3 |  |  |
| SWEN 450 | Software Team Project I | 3 |
|  | CPSC Upper-Level Elective (CPSC 455) | 3 |
|  | Credits Subtotal | 6.0 |
| Term 4 |  |  |
| SWEN 451 | Software Team Project II | 3 |
|  | Psychology Lower-Level | 3 |
|  | Credits Subtotal | 6.0 |
|  | Credits Total: | 30.0 |
| Total Degre | quirements | 121 |

