# **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	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	8.0
Term 3		
MATH 242	Calculus and Analytical Geometry II	4
ENGL 123	English Composition	3
	Humanities Lower-Level (HUMN)	3
	Credits Subtotal	10.0
Term 4		
COMD 219	Speech	3
PHYS 150	Physics I for Engineers	3
	Credits Subtotal	6.0
	Credits Total:	33.0

#### 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	8.0
Term 2		
CESC 220	Digital Circuit Design	3
CESC 222	Digital Circuit Design Laboratory	1
STAT 412	Probability and Statistics	3
	Credits Subtotal	7.0
Term 3		
CESC 320	Microprocessor Systems	3
CESC 322	Microprocessor Systems Laboratory	1
	Upper-Level MATH Elective (MATH 432)	3
	Credits Subtotal	7.0
Term 4		
ENGL 221	Technical Report Writing	3

Psychology Lower-Level	3
Credits Subtotal	6.0
Credits Total:	28.0

#### 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
Term 1 CPSC 432	Information and Computer Security	Credits 3
<b>Term 1</b> CPSC 432 CESC 450	Information and Computer Security Real-Time Embedded Systems	Credits 3 3
<b>Term 1</b> CPSC 432 CESC 450 SWEN 420	Information and Computer Security Real-Time Embedded Systems Software Quality Assurance	Credits 3 3 3
Term 1 CPSC 432 CESC 450 SWEN 420	Information and Computer Security Real-Time Embedded Systems Software Quality Assurance Credits Subtotal	Credits 3 3 3 9.0
Term 1 CPSC 432 CESC 450 SWEN 420 Term 2	Information and Computer Security Real-Time Embedded Systems Software Quality Assurance Credits Subtotal	Credits 3 3 3 9.0
Term 1 CPSC 432 CESC 450 SWEN 420 Term 2	Information and Computer Security Real-Time Embedded Systems Software Quality Assurance Credits Subtotal Specified Elective (CPSC 335)	Credits 3 3 3 9.0
Term 1 CPSC 432 CESC 450 SWEN 420 Term 2	Information and Computer Security Real-Time Embedded Systems Software Quality Assurance Credits Subtotal Specified Elective (CPSC 335) Specified Elective (SWEN 410)	Credits 3 3 9.0 3 3 3 3 3
Term 1 CPSC 432 CESC 450 SWEN 420 Term 2	Information and Computer Security Real-Time Embedded Systems Software Quality Assurance Credits Subtotal Specified Elective (CPSC 335) Specified Elective (SWEN 410) CPSC Upper-Level Elective (CPSC 462)	Credits 3 3 9.0 3 3 3 3 3 3
Term 1 CPSC 432 CESC 450 SWEN 420 Term 2	Information and Computer Security Real-Time Embedded Systems Software Quality Assurance Credits Subtotal Specified Elective (CPSC 335) Specified Elective (SWEN 410) CPSC Upper-Level Elective (CPSC 462) Credits Subtotal	Credits 3 3 9.0 3 3 3 3 3 9.0
Term 1 CPSC 432 CESC 450 SWEN 420 Term 2	Information and Computer Security Real-Time Embedded Systems Software Quality Assurance Credits Subtotal Specified Elective (CPSC 335) Specified Elective (SWEN 410) CPSC Upper-Level Elective (CPSC 462) Credits Subtotal	Credits 3 3 9.0 3 3 3 3 9.0
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Term 1 CPSC 432 CESC 450 SWEN 420 Term 2 Term 3 SWEN 450	Information and Computer Security Real-Time Embedded Systems Software Quality Assurance Credits Subtotal Specified Elective (CPSC 335) Specified Elective (SWEN 410) CPSC Upper-Level Elective (CPSC 462) Credits Subtotal Software Team Project I CPSC Upper-Level Elective (CPSC 455) Credits Subtotal	Credits 3 3 9.0 3 3 3 9.0 3 3 3 6.0
Term 1 CPSC 432 CESC 450 SWEN 420 Term 2 	Information and Computer Security   Real-Time Embedded Systems   Software Quality Assurance   Credits Subtotal   Specified Elective (CPSC 335)   Specified Elective (SWEN 410)   CPSC Upper-Level Elective (CPSC 462)   Credits Subtotal   Software Team Project I   CPSC Upper-Level Elective (CPSC 455)   Credits Subtotal	Credits 3 3 9.0 3 3 9.0 3 3 6.0
Term 1 CPSC 432 CESC 450 SWEN 420 Term 2 	Information and Computer Security Real-Time Embedded Systems Software Quality Assurance Credits Subtotal Specified Elective (CPSC 335) Specified Elective (SWEN 410) CPSC Upper-Level Elective (CPSC 462) Credits Subtotal Software Team Project I CPSC Upper-Level Elective (CPSC 455) Credits Subtotal Software Team Project II	Credits 3 3 9.0 3 3 9.0 3 6.0 3
Term 1 CPSC 432 CESC 450 SWEN 420 Term 2 Term 3 SWEN 450 Term 4 SWEN 451	Information and Computer Security Real-Time Embedded Systems Software Quality Assurance Credits Subtotal Specified Elective (CPSC 335) Specified Elective (CPSC 335) Specified Elective (SWEN 410) CPSC Upper-Level Elective (CPSC 462) Credits Subtotal Software Team Project I CPSC Upper-Level Elective (CPSC 455) Credits Subtotal Software Team Project II Psychology Lower-Level	Credits 3 3 9.0 3 3 9.0 3 3 6.0 3 3 3 3 3 3 3 3 3 3 3 3 3
Term 1 CPSC 432 CESC 450 SWEN 420 Term 2 Term 3 SWEN 450 Term 4 SWEN 451	Information and Computer Security Real-Time Embedded Systems Software Quality Assurance Credits Subtotal Specified Elective (CPSC 335) Specified Elective (SWEN 410) CPSC Upper-Level Elective (CPSC 462) Credits Subtotal Software Team Project I CPSC Upper-Level Elective (CPSC 455) Credits Subtotal Software Team Project II Psychology Lower-Level Credits Subtotal	Credits 3 3 9.0 3 3 9.0 3 3 6.0 3 3 6.0
Term 1 CPSC 432 CESC 450 SWEN 420 Term 2 Term 3 SWEN 450 Term 4 SWEN 451	Information and Computer Security Real-Time Embedded Systems Software Quality Assurance Credits Subtotal Specified Elective (CPSC 335) Specified Elective (SWEN 410) CPSC Upper-Level Elective (CPSC 462) Credits Subtotal Software Team Project I CPSC Upper-Level Elective (CPSC 455) Credits Subtotal Software Team Project II Psychology Lower-Level Credits Subtotal Credits Subtotal Credits Subtotal	Credits 3 3 9.0 3 3 9.0 3 3 6.0 30.0