

Course Tracks for **Computer Engineering & Computer Science**

The Computer Engineering & Computer Science program (CECS) trains students to integrate hardware and software processes to design solutions to problems arising in complex domains such as atomic reactors, guidance systems and manufacturing systems. CSCI 102 is the introductory course for this program and the appropriate course for students with limited or no prior computer programming experience. Students who earn a 4 or 5 on the AP Computer Science A exam, or pass the CSCI 102 Challenge Exam, are able to begin in the next level of courses.

Computer Engineering & Computer Science (Embedded Systems) — Begin with CS 103

FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR	
FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING
WRIT 150 4	GESM (GE C) [#] 4	PHYS 151L MATH 125 or 126 or 226 or 129 or 229 4	PHYS 152L PHYS 151, MATH 126 or 129, (MATH 226 or 229) 4	EE 202 MATH 245 4	GE B 4	GE B 4	CSCI 430 CSCI 201 4
MATH 125 (GE F) [*] 4	MATH 126 or MATH 129 [*] MATH 125 4	MATH 226 or MATH 229 MATH 126 or 129 4	MATH 225 or MATH 235 MATH 126 or 129 4	EE 364 MATH 225 or 245 or MATH 407 MATH 226 4	TECHNICAL ELECTIVE I 4	TECHNICAL ELECTIVE II 4	GE C 4
CSCI 170 CSCI 102 4	CSCI 104L CSCI 103L, CSCI 170 4	GE A [*] 4	CSCI 270 CSCI 104L, CSCI 170 4	WRIT 340 WRIT 150 4	EE 301 EE 141, EE 202 4	TECHNICAL ELECTIVE III 4	EE 459 EE 354 4
CSCI 103 CSCI 102 4	EE 109L (CSCI 102) 4	EE 250 EE 109 4	EE 354L EE 109 4	EE 457 EE 354 4	GE D [*] 4	OPTIONAL ELECTIVE 2	FREE ELECTIVE 4
ENGR 102 2	OPTIONAL ELECTIVE 2	OPTIONAL ELECTIVE 2	OPTIONAL ELECTIVE 2	OPTIONAL ELECTIVE 2	OPTIONAL ELECTIVE 2	OPTIONAL ELECTIVE 4	OPTIONAL ELECTIVE 2

Computer Engineering & Computer Science (Embedded Systems) — Begin with CS 102

FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR	
FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING
GE A 4	CSCI 170 CSCI 102 4	WRIT 150 4	PHYS 151L MATH 125 or 126 or 226 or 129 or 229 4	PHYS 152L [*] PHYS 151, MATH 126 or 129 4	GE D [*] 4	GE B 4	CSCI 430 CSCI 201 4
MATH 125 (GE F) [*] 4	CSCI 103 CSCI 102 4	MATH 226 or MATH 229 MATH 126 or 129 4	MATH 225 or MATH 235 MATH 126 or 129 4	EE 364 MATH 225 or 245 or MATH 407 MATH 226 4	TECHNICAL ELECTIVE I 4	TECHNICAL ELECTIVE II 4	GE C 4
GESM (GE C) [#] 4	MATH 126 or MATH 129 [*] MATH 125 4	CSCI 104L CSCI 103L, CSCI 170 4	CSCI 270 CSCI 104L, CSCI 170 4	EE 202 MATH 245 4	EE 301 EE 141, EE 202 4	TECHNICAL ELECTIVE III 4	EE 459 EE 354 4
CSCI 102 2	EE 109L (CSCI 102) 4	EE 250 EE 109 4	EE 354L EE 109 4	EE 457 EE 354 4	GE B 4	WRIT340 WRIT 150 4	FREE ELECTIVE 4
ENGR 102 2	OPTIONAL ELECTIVE 2	OPTIONAL ELECTIVE 2	OPTIONAL ELECTIVE 2	OPTIONAL ELECTIVE 2	OPTIONAL ELECTIVE 2	OPTIONAL ELECTIVE 2	OPTIONAL ELECTIVE 2



Students in the Computer Engineering & Computer Science (CECS) major must declare their track no later than the start of their 5th semester. Students in the Computing Systems track are advised by the Computer Science department.

Students in the Embedded Systems track are advised by the Electrical and Computer Engineering department.

Computer Engineering & Computer Science (Computing Systems)— Begin with CS 103

FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR	
FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING
WRIT 150 4	GESM (GE B)# 4	PHYS 151L* MATH 125 or 126 or 226 or 129 or 229 4	PHYS 152L* PHYS 151, MATH 126 or 129, (MATH 226 or 229) 4	GE A* 4	GE D* 4	GE B 4	EE 451L CSCI 201L or EE 454L EE 354 or EE 477L EE 354 4
MATH 125 (GE F)* 4	MATH 126 or MATH 129* MATH 125 4	MATH 226 or MATH 229 MATH 126 or 129 4	MATH 225 or MATH 235 MATH 126 or 129 4	EE 364 MATH 225 or 245 or MATH 407 MATH 226 4	TECHNICAL ELECTIVE I 4	TECHNICAL ELECTIVE II 4	GE C 4
CSCI 170 CSCI 102 4	CSCI 104L CSCI 104L, CSCI 170 4	GE C* 4	CSCI 270 CSCI 104L, CSCI 170 4	CSCI 201L CSCI 104L 4	CSCI 350 CSCI 201, EE 354, or CSCI 356 4	CSCI 353 CSCI 201 4	CSCI 401 CSCI 270 or CSCI 404 CSCI 201, 270 or EE 459LX EE 354 4
CSCI 103 CSCI 102 4	EE 109L CSCI 102 4	EE 250 EE 109 4	EE 354L EE 109 4	EE 457 EE 354 4	OPTIONAL ELECTIVE 6	EE 451L CSCI 201L or EE 454L EE 354 or EE 477L EE 354 4	WRIT 340 WRIT 150 4
ENGR 102 2	OPTIONAL ELECTIVE 2	OPTIONAL ELECTIVE 2	OPTIONAL ELECTIVE 2	OPTIONAL ELECTIVE 2		OPTIONAL ELECTIVE 2	OPTIONAL ELECTIVE 2

Computer Engineering & Computer Science (Computing Systems) — Begin with CS 102

FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR	
FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING
GE A* 4	CSCI 170 CSCI 102 4	WRIT 150 4	PHYS 151L* MATH 125 or 126 or 226 or 129 or 229 4	PHYS 152L PHYS 151, MATH 126 or 129, (MATH 226 or 229) 4	GE D* 4	GE B 4	EE 451L CSCI 201L or EE 454L EE 354 or EE 477L EE 354 4
MATH 125 (GE F)* 4	CSCI 103 CSCI 102 4	MATH 226 or MATH 229 MATH 126 or 129 4	MATH 225 or MATH 235 MATH 126 or 129 4	EE 364 MATH 225 or 245 or MATH 407 MATH 226 4	TECHNICAL ELECTIVE I 4	TECHNICAL ELECTIVE II 2-4	GE C 4
GESM (GE B)# 4	MATH 126 or MATH 129* MATH 125 4	CSCI 104L CSCI 103L, CSCI 170 4	CSCI 270 CSCI 104L, CSCI 170 4	CSCI 201L CSCI 104L 4	CSCI 350 CSCI 201, EE 354, or CSCI 356 4	CSCI 353 CSCI 201 4	CSCI 401 CSCI 270 or CSCI 404 CSCI 201, 270 or EE 459LX 4
CSCI 102 2	EE 109L CSCI 102 4	EE 250 EE 109, CSCI 103 4	EE 354L EE 109 4	EE 457 EE 354 4	GE C 4	EE 451L CSCI 201L or EE 454L EE 354 or EE 477L EE 354 4	EE 354 4
ENGR 102 2	OPTIONAL ELECTIVE 2	OPTIONAL ELECTIVE 2	OPTIONAL ELECTIVE 2	OPTIONAL ELECTIVE 2	OPTIONAL ELECTIVE 2	OPTIONAL ELECTIVE 2	OPTIONAL ELECTIVE 2

COMPUTER SCIENCE