Begin to earn credits toward a **COMPUTER SCIENCE** Master's Degree while taking undergraduate courses!
CLICK HERE

Bachelor of COMPUTER ENGINEERING (CE)

4-Year Recommended Course Sequence with *Calculus Entry*

Click on the Course Name to access the course in the Undergraduate Catalog 24-25

Updated July 2025

Fall Semester 1	Spring Semester 2	Fall Semester 3	Spring Semester 4	Fall Semester 5	Spring Semester 6	Fall Semester 7	Spring Semester 8
☆ **INQ 170 [3]** Introduction to Engineering Design	**CIS 151 [3]** Invitation to Computing	**CIS 260 [4]** Intro to Programming (ESC 151)	**CIS 265 [4]** Data Structures & Algorithms (CIS 260, MTH 181)	**CIS 340 [3]** Systems Programming (CIS 265)	C **CIS 345 or CIS 545 [3]** Operating Systems (340)	**EEC 493 [2]** Senior Design I (*CIS 454 or *EEC 487 or *EEC 484)	**EEC 494 [3]** Senior Design II (EEC 493)
CHM 261 [3] Gen. Chem. I **CHM 266 [1]** Gen. Chem I Lab	**PHY 241 [5]** Physics I (MTH 181)	**EEC 383 [3]** Digital Systems (*EEC 310 or *PHY 242)	**EEC 384 [2]** Digital Systems Laboratory (EEC 383)	**EEC 313 [3]** Electronics I (EEC 310, *EEC 311)	**EEC 316 [1]** Electronic Devices Lab (EEC 311, EEC 313)	C **EEC/CIS Tech Elective [3]** 300-400 Level	C **EEC/CIS Tech Elective [3]** 300-400 Level
MTH 181 [4] Calculus I	**MTH 182 [4]** Calculus II (MTH 181- C or better)	**PHY 242 [5]** Physics II (PHY 241)	**EEC 310 [4]** Circuits I (*INQ 170, *MTH 284,*PHY 242)	C **EEC 487 or EEC 580 [3]** Advanced Digital Systems (EEC 384)	C **EEC 483 or EEC 581 [3]** Comp. Organization (EEC 384, CIS 265)	C **CIS 454 or CIS 584 [3]** Computer Networks (CIS 340)	C **EEC/CIS Tech Elective [3]** 300-400 Level
ENG 100 [3] Intensive Writing **or** **ENG 101 [3]** College Writing I	**ENG 108 [3]** AI & Writing (Preferred) (ENG 101) **OR** **ENG 102 [3]** College Writing II (ENG 101)	**MTH 284 [2]** Matrices for Engineers (MTH 182- C or better)	**ESC 250 [3]** Diff EQ for Eng. (MTH 182) **OR** **MTH 286 [3]** Intro. to Diff EQ (MTH 182- C or better)	**American Civic Literacy Elective [3]**	**ESC 310 [3]** Statistics and Probability (MTH 182) **OR** **STA 323 [3]** Statistical Methods (MTH 182- C or better)	C **EEC/CIS Tech Elective [3]** 300-400 Level	C **EEC/CIS Tech Elective [3]** 300-400 Level
	Society and Human Behavior Elective [3]	**MTH 220 [3]** Discrete Math (MTH 182- C or better)	****ESC 130 [1]** Engineering & Computer Science Career Preparation	C **EEC/CIS Tech Elective [3]** 300-400 Level	**EEC 414 [2]** Technical Communication (PHL 215)	**Global Human Perspectives Elective [3]**	**Complexities of Pluralistic Society Elective [3]**
			PHL 215 [3] Technology Ethics HCC Elective		**ESC 282 [3]** Engineering Economy (MTH 182)		
14 Total Credit Hours	18 Total Credit Hours	17 Total Credit Hours	17 Total Credit Hours	16 Total Credit Hours	15 Total Credit Hours	14 Total Credit Hours	15 Total Credit Hours

Degree Total Hours: 126 including **ESC 130 Engineering Co-op Orientation

(Prerequisites) • (*Pre/co-requisite) • [# of Course Credits] • EEC/CIS XXX = Only Offered That Fall/Spring Semester

- Required BCE Courses
- Required Science Courses
- Required English Courses
- Required Writing Across the Curriculum (WAC) Courses

** ESC 130 is highly recommended but not required

- Required BCE 300-400 Level Electives
- Required Math Courses
- Core Curriculum Electives

C 500-level courses that satisfy Undergraduate and Master's degree credits

☆**ESC 120** Intro to Engineering Design can replace **INQ 170** for transfer students and students who completed an inquiry launch course other than INQ 170. Neither course is required for transfer students with an Associates of Applied Science degree

EASILY EARN A MATH MINOR AS A CE MAJOR! CLICK HERE TO LEARN HOW

EARN AN AUTOMATIC COMPUTER SCIENCE MINOR! CLICK HERE TO LEARN HOW

↓ Scroll Down to View the Precalculus Entry 4-Year Plan Degree Chart ↓

Begin to earn credits toward a **COMPUTER SCIENCE** Master's Degree while taking undergraduate courses!
CLICK HERE

Updated July 2025

Bachelor of COMPUTER ENGINEERING (CE)

4-Year Recommended Course Sequence with *Precalculus Entry*

Click on the Course Name to access the course in the Undergraduate Catalog 24-25

Fall Semester 1	Spring Semester 2	Summer Semester #1	Fall Semester 3	Spring Semester 4	Fall Semester 5	Spring Semester 6	Fall Semester 7	Spring Semester 8
★ INQ 170 [3] Introduction to Engineering Design	Global Human Perspectives Elective [3]		CIS 260 [4] Intro to Programming (ESC 151)	CIS 265 [4] Data Structures and Algorithms (CIS 260, MTH 181)	EEC 311 [4] Circuits II (EEC 310- C or better)	C CIS 345 or CIS 545 [3] Operating Systems (CIS 340)	EEC 493 [2] Senior Design I (*CIS 454 or *EEC 487 or *EEC 484)	EEC 494 [3] Senior Design II (EEC 493)
Complexities of Pluralistic Society Elective [3]	American Civic Literacy Elective [3]	ESC 151 [3] C Program. (MTH 168)	PHY 241 [5] Physics I (MTH 181)	EEC 310 [4] Circuits I (*INQ 170, *MTH 284, *PHY 242)	EEC 313 [3] Electronics I (EEC 310, *EEC 311)	EEC 316 [1] Elec Devices Lab (EEC 311, EEC 313)	C CIS 454 or CIS 584 [3] Data Comm. & Networking (CIS 340)	C EEC 483 or EEC 581 [3] Comp. Organization (EEC 384, CIS 265)
ENG 100 [3] Intensive Writing or ENG 101 [3] College Writing I	ENG 108 [3] AI & Writing (Preferred) (ENG 101) OR ENG 102 [3] College Writing II (ENG 101)		MTH 182 [4] Calculus II (MTH 181- C or Better)	PHY 242 [5] Physics II (PHY 241)	EEC 383 [3] Digital Systems (*EEC 310 or *PHY 241)	PHL 215 [3] Technology Ethics HCC Elective	C EEC/CIS Tech Elective [3] 300-400 Level	C EEC/CIS Tech Elective [3] 300-400 Level
MTH 165 [3] Intensive Precalc I OR MTH 167 [3] Precalculus I	MTH 168 [3] Precalculus II (MTH 165 or MTH 167- C or better)	OPSTEM MTH 180 SUMMER CALCULUS I [4] (Average B- or better in MTH 167&168)	CHM 261 [3] Gen. Chem. I CHM 266 [1] Gen. Chem. I Lab (MTH 168)	ESC 250 [3] Diff EQ for Eng. (MTH 182) OR MTH 286 [3] Intro. to Diff EQ (MTH 182- C or better)	CIS 340 [3] Systems Programming (CIS 265)	STA 323 [3] Statistical Methods (MTH 182- C or better) OR ESC 310 [3] Statistics and Probability (MTH 182)	C EEC/CIS Tech Elective [3] 300-400 Level	C EEC/CIS Tech Elective [3] 300-400 Level
Society and Human Behavior Elective [3]			**ESC 130 [1] Engineering & Computer Science Career Preparation	MTH 284 [2] Matrices for Engineers (MTH 182- C or better)	MTH 220 [3] Discrete Math (MTH 182- C or better)	EEC 384 [2] Digital Sys Lab (EEC 383)	C EEC 487 or EEC 580 [3] Advanced Digital Sys (EEC 384)	EEC 414 [2] Technical Communication (PHL 215)
						ESC 282 [3] Engineering Economy (MTH 182)	C EEC 488 or EEC 587 [3] HW-SW Codesign (*EEC 487, *CIS 340)	
15 Total Credit Hours	12 Total Credit Hours	7 Total Credit Hrs	18 Total Credit Hours	18 Total Credit Hours	16 Total Credit Hours	15 Total Credit Hours	17 Total Credit Hours	14 Total Credit Hours

Total Credits for CE Degree: 132 including **ESC 130 Engineering Co-op Orientation

(Prerequisites) • (*Pre/co-requisite) • [# of Course Credits] • EEC/CIS XXX = Only Offered That Fall/Spring Semester

Required BCE Courses
Required Science Courses
Required English Courses
Required Writing Across the Curriculum (WAC) Courses

** ESC 130 is highly recommended but not required

Required BCE 300-400 Level Electives
Required Math Courses
Core Curriculum Electives

★ **ESC 120** Intro to Engineering Design can replace **INQ 170** for transfer students and students who completed an inquiry launch course other than INQ 170. Neither course is required for transfer students with an Associates of Applied Science degree

EASILY EARN A MATH MINOR AS A CE MAJOR! CLICK HERE TO LEARN HOW

EARN AN AUTOMATIC COMPUTER SCIENCE MINOR! CLICK HERE TO LEARN HOW

↓ Scroll Down to View the Precalculus Entry 5-Year Plan Degree Chart ↓

Begin to earn credits toward a **COMPUTER SCIENCE** Master's Degree while taking undergraduate courses!
CLICK HERE

Updated July 2025

Bachelor of COMPUTER ENGINEERING (CE)

5-Year Recommended Course Sequence with *Precalculus Entry*

Click on the Course Name to access the course in the Undergraduate Catalog 24-25

Fall Semester 1	Spring Semester 2	Fall Semester 3	Spring Semester 4	Fall Semester 5	Spring Semester 6	Fall Semester 7	Spring Semester 8	Fall Semester 9	Spring Semester 10
★ INQ 170 [3] Introduction to Engineering Design	Complexities of Pluralistic Society Elective [3]	ESC 151 [3] C Program. (MTH 168)	PHY 241 [5] Physics I (MTH 181)	PHY 242 [5] Physics II (PHY 241)	CIS 265 [4] Data Structures and Algorithms (CIS 260, MTH 181)	CIS 340 [3] Systems Programming (CIS 265)	C CIS 345 or CIS 545 [3] Operating Systems (CIS 340)	EEC 493 [2] Senior Design I (*CIS 454 or *EEC 487 or *EEC 484)	C EEC 494 [3] Senior Design II (EEC 493)
Society and Human Behavior Elective [3]	Global Human Perspectives Elective [3]	MTH 181 [4] Calculus I (MTH 168)	MTH 182 [4] Calculus II (MTH 181)	ESC 250 [3] Diff EQ for Eng. (MTH 182) OR MTH 286 [3] Intro. to Diff EQ (MTH 182- C or better)	EEC 310 [4] Circuits I (*INQ 170,*MTH 284,*PHY 242)	EEC 313 [3] Electronics I (EEC 310, *EEC 311)	EEC 316 [1] Electronic Devices Lab (EEC 311, EEC 313)	EEC 488 or EEC 587 [3] HW-SW Codesign (*EEC 487, *CIS 340)	EEC 483 or EEC 581 [3] Computer Organization (EEC 384, CIS 265)
ENG 100 [3] Intensive Writing or ENG 101 [3] College Writing I	ENG 108 [3] AI & Writing (Preferred) (ENG 101) OR ENG 102 [3] College Writing II (ENG 101)	CHM 261 [3] Gen. Chem. I CHM 266 [1] Gen. Chem. I Lab (MTH 168)	CIS 260 [4] Intro to Programming (ESC 151)	MTH 284 [2] Matrices for Engineers (MTH 182- C or better)	EEC 383 [3] Digital Systems (*EEC 310 or *PHY 242)	EEC 311 [4] Circuits II (EEC 310- C or better)	C EEC/CIS Tech Elective [3] 300-400 Level	C CIS 454 or CIS 584 [3] Data Comm. & Networking (CIS 340)	C EEC/CIS Tech Elective [3] 300-400 Level
MTH 165 [3] Intensive Precalc I OR MTH 167 [3] Precalculus I	MTH 168 [3] Precalculus II (MTH 165 or MTH 167- C or better)	American Civic Literacy Elective [3]	**ESC 130 [1] Engineering & Computer Science Career Preparation	PHL 215 [3] Technology Ethics HCC Elective	ESC 282 [3] Engineering Economy (MTH 182)	MTH 220 [3] Discrete Math (MTH 182- C or better)	STA 323 [3] Statistical Methods (MTH 182) OR ESC 310 [3] Statistics and Probability (MTH 182)	C EEC/CIS Tech Elective [3] 300-400 Level	C EEC/CIS Tech Elective [3] 300-400 Level
							EEC 384 [2] Digital Systems Lab (EEC 383)	C EEC 487 or EEC 580 [3] Advanced Digital Systems (EEC 384)	EEC 414 [2] Technical Communication (PHL 215)
12 Total Credit Hours	12 Total Credit Hours	14 Total Credit Hours	14 Total Credit Hours	14 Total Credit Hours	14 Total Credit Hours	12 Total Credit Hours	12 Total Credit Hours	14 Total Credit Hours	14 Total Credit Hours

Total Credits for CE Degree: 132 including **ESC 130 Engineering Co-op Orientation

(Prerequisites) • (*Pre/co-requisite) • [# of Course Credits] • EEC/CIS XXX = Only Offered That Fall/Spring Semester

Required BCE Courses
Required Science Courses
Required English Courses (**ESC** 102 is preferred. However, can be substituted with **ENG** 102.)
Required Writing Across the Curriculum (WAC) Courses

** ESC 130 is highly recommended but not required

Required BCE 300-400 Level Electives
Required Math Courses
Core Curriculum Electives

C 500-level courses that satisfy Undergraduate and Master's degree credits

★ **ESC 120** Intro to Engineering Design can replace **INQ 170** for transfer students and students who completed an inquiry launch course other than INQ 170. Neither course is required for transfer students with an Associates of Applied Science degree

EASILY EARN A MATH MINOR AS A CE MAJOR! CLICK HERE TO LEARN HOW

EARN AN AUTOMATIC COMPUTER SCIENCE MINOR! CLICK HERE TO LEARN HOW

List of CE undergraduate courses that satisfy COMPUTER SCIENCE Master's Degree credits

Course Number & Name
CIS 390|CIS 550: Introduction to Algorithms
CIS 345|CIS 545: Operating Systems
CIS 454|CIS 584: Computer Networks
CIS 430|CIS 530: Database Concepts
EEC 417|EEC 517: Embedded Systems
EEC 430|EEC 530: Digital Signal Processing
EEC 473|EEC 571: Power Systems
EEC 487|EEC 580: Advanced Digital Systems
EEC 488|EEC 587: Hardware-Software Co-Design
EEC 456|EEC 556: Software Defined Radio
EEC 457|EEC 557: Modern Applications of Digital Communications
EEC 460|EEC 560: Engineer Electromagnetics
EEC 483|EEC 581: Computer Organization

Access CampusNet to check when courses are offered each semester!