

Bachelor of Science in Computer Science and Engineering

Computer Science and Engineering Individualized Specialization Option

The Individualized Option provides students the opportunity to select a combination of technical electives that may not fit with one of the other options. Students are expected to consult with an advisor to determine appropriate courses. Students in this major will complete a minimum of 126 credit hours as outlined below.

General Education Requirements		
Requirement	Course Options	Hours
GE Launch Seminar	GENED 1201	1
Foundations: Writing and Information Literacy	Student Choice	3
Foundations: Mathematical & Quantitative Reasoning/Data Analysis	Math 1151	Overlap w/ College requirement
Foundations: Literary, Visual and Performing Arts	Student Choice	3
Foundations: Historical & Cultural Studies	Student Choice	3
Foundations: Natural Science	Physics 1250	Overlap w/ College requirement
Foundations: Social & Behavioral Sciences	Student Choice	3
Foundations: Race, Ethnic and Gender Diversity	Student Choice	3
Theme: Citizenship for a Diverse & Just World	Student Choice	4
Theme: Student Choice	Student Choice	4
GE Reflection	Program required capstone	Embedded into Major Core Capstone
General Education Credit Hours:		24

College/Degree Requirements		
Requirement	Course Options	Hours
Math 1151, 1172, (Math & Quantitative Reasoning / Data Analysis)		10
Physics 1250 (Nat Sci)		5
ENGR 1181.0x, 1182.0x		4
ENGR 1100.01		1
Credit Hours:		20

General Education Requirements	24
College/Degree Requirements	20
Major Core	42-45
Required Non-Major Courses	23
Technical/Directed/Targeted Electives; Career Courses	17
Minimum Total Credit Hours	126

Course	Title	Hours
Major Core		
CSE 2221 and 2231	Software 1 and 2	8 (4+4)
CSE 2321 and 2331	Foundations 1 and 2	6 (3+3)
CSE 2421 and 2431	Systems 1 and 2	7 (3+4)
CSE 3341	Principles of Programming Languages	3
CSE 2501 or PHILOS 3XXX	Social, Ethical, and Professional Issues in Computing or Computing Ethics in a Just & Diverse World	1 or 4
CSE 3901 or 3902 or 3903	Project: Design, Development, and Documentation (Web Applications or Interactive Systems or Systems Software)	4
CSE 3231 or 3241	Introduction to Software Engineering or Introduction to Databases	3
CSE 3421 or 3461	Computer Architecture or Introduction to Networking	3
CSE 3521 or 3541	Introduction to Artificial Intelligence or Introduction to Computer Graphics	3
CSE 5911 or 5912 or 5913 or 5914 or 5915 or 5916	Capstone Experience (Software Applications or Game Design and Development or Computer Animation or Knowledge-Based Systems or Information Systems or Research-Focused Projects)	4
Total Major Core		42-45
Required Non-Major Courses		
ECE 2020		3
ECE 2060		3
MATH 2568		3
MATH 3345		3
STAT 3470		3
Science/Math Elective	Choice from list (see Degree Audit for list)	8
Total Required Non-Major Courses		23
Required Technical / Directed / Targeted Electives; Career Courses		
CSE courses 3000-level or higher*		>= 9
Approved non-CSE courses 2000-level or higher*		<= 8
Total Required Technical Electives		17
Total Required Major and Non-Major Credit Hours:		80-83

Additional information:
***Technical electives:**

- At most 2 hours of CSE 4251-4256 may be counted toward technical electives
- At most 2 hours of CSE 4193, 3 hours of CSE 4998, or 6 hours of CSE 4999, with no more than 6 hours total of CSE 4193, 4998, and 4999 combined, may be counted toward technical electives
- Non-CSE technical electives may be satisfied by completing an approved minor or through select courses (see list). Minors or courses not listed may be petitioned. More information is available at <https://cse.osu.edu/current-students/undergraduate/majors/bachelors-science-computer-science-engineering-bs-cse>

****Application to the major:**

- **An application to the major must be submitted online at <https://advising.engineering.osu.edu/current-students/applying-your-major> during the term in which admission requirements are being completed**

*****Graduation application:**

- **An application to graduate must be submitted online at <https://graduation.engineering.osu.edu> no later than the second Friday of the semester prior to the graduation term**

	Autumn		Spring	
Year 1	Engr 1100	1	CSE 2221 (need <i>C</i> or <i>better</i>)	4
	Engr 1181	2	Engr 1182	2
	Math 1151	5	Math 1172	5
	Physics 1250	5	GE-Writing	3
	CSE 1223	3	GE Launch Seminar	1
		16		15
Year 2	CSE 2231	4	CSE 2331	3
	CSE 2321	3	CSE 2421	4
	Stat 3470	3	ECE 2060	3
	Math or Science Elective	4	Math 3345	3
	GE-Social & Behavioral	3	GE-Lit/VPA	3
		17		16
Year 3	CSE 2431	3	CSE 32X1	3
	CSE 390X	4	CSE 34X1	3
	ECE 2020	3	CSE 35X1	3
	Math 2568	4	CSE 2501 or PHILOS 3XXX	1 or 4
	GE-History	3	[GE-Theme if no PHILOS 3XXX	4]
		17	Math or Science Elective	4
				14-17
Year 4	CSE 3341	3	CSE 591X	4
	Technical Elective	3	Technical Elective	3
	Technical Elective	3	Technical Elective	3
	Technical Elective	3	Technical Elective	2
	GE-Diversity	3	GE-Theme	4
		15		16