

## BS CSE Requirements

General College of Engineering Requirements		Hours
Engr 1100	Introduction to Ohio State and Computer Science and Engineering	1
Engr 1181 and Engr 1182	Fundamentals of Engineering I and II	4
Math 1151 and Math 1172	Calculus I and Engineering Mathematics A	10
Physics 1250	Mechanics, Thermal Physics, Waves	5
<b>Computer Science Core</b>		
CSE 2221 and CSE 2231	Software I: Software Components and Software II: Software Development and Design	8
CSE 2321 and CSE 2331	Foundations I: Discrete Structures and Foundations II: Data Structures and Algorithms	6
CSE 2421 and CSE 2431	Systems I: Introduction to Low-Level Programming and Computer Organization and Systems II: Introduction to Operating Systems	7
Choose one of the following:		
CSE 2501	Social, Ethical, and Professional Issues in Computing	1
Philos 1338	Ethics in the Professions: Introduction to Computing Ethics and Effective Presentation	4
<b>Non-Computer Science Core</b>		
ECE 2020 and ECE 2060	Introduction to Analog Systems and Circuits and Introduction to Digital Logic	6
Math 2568 and Math 3345	Linear Algebra and Foundations of Higher Mathematics	6
Stat 3470	Introduction to Probability and Statistics for Engineers	3
<b>Computer Science Core Choices (requirements for specialization option may dictate core choices)</b>		
CSE 3231 or CSE 3241	Software Engineering Techniques or Introduction to Database Systems	3
CSE 3321 or CSE 3341	Automata and Formal Languages or Principles of Programming Languages	3
CSE 3421 or CSE 3461	Introduction to Computer Architecture or Computer Networking and Internet Technologies	3
CSE 3521 or CSE 3541	Survey of Artificial Intelligence I: Basic Techniques or Computer Game and Animation Techniques	3
Choose one of the following:		
CSE 3901	Project: Design, Development, and Documentation of Web Applications	4
CSE 3902	Project: Design, Development, and Documentation of Interactive Systems	4
CSE 3903	Project: Design, Development, and Documentation of System Software	4
Choose one of the following:		
CSE 5911	Capstone Design: Software Applications	4
CSE 5912	Capstone Design: Game Design and Development	4
CSE 5913	Capstone Design: Computer Animation	4
CSE 5914	Capstone Design: Knowledge-Based Systems	4
CSE 5915	Capstone Design: Information Systems	4
<b>CSE Math and Science Electives (choose at least 8 hours)</b>		
Math 2153	Calculus III	4
Math 2255 or Math 2415	Differential Equations and Their Applications or Ordinary and Partial Differential Equations	3
Stat 4201	Introduction to Mathematical Statistics I	4
Stat 5301	Intermediate Data Analysis I	4
Anthrop 2200	Introduction to Physical Anthropology	4
Biology 1113	Biological Sciences: Energy Transfer and Development	4
Biology 1114	Biological Sciences: Form, Function, Diversity, and Ecology	4
Chem 1210	General Chemistry I	5
Chem 1250	General Chemistry for Engineers	4
EarthSc 1121	The Dynamic Earth	4
EarthSc 1122	Earth Through Time	4
ENR 2100	Introduction to Environmental Science	3
ENR 3000 and ENR 3001	Soil Science and Soil Science Laboratory	4
FdScTe 2200	The Science of Food	3
HCS 2201	Ecology of Managed Plant Systems	4
HCS 2202	Form and Function in Cultivated Plants	4
Physics 1251	E&M, Optics, Modern Physics	5
<b>CSE Technical Electives (choose at least 17 hours that meet the following criteria)</b>		
Any CSE course 3000-level or above not already used to fulfill another requirement		
Requirements for specialization option may dictate technical elective choices		
At most 1 hour of CSE 4251-4255		
At most 2 hours of CSE 4193, 4193H, 4998, 4998H, 4999 or 4999H		
At most 8 hours of non-CSE courses at the 2000-level and above approved by the academic advisor		
<b>General Education (choose at least 24 hours)</b>		
For detailed GE curriculum requirements and course lists visit <a href="http://advising.engineering.osu.edu">advising.engineering.osu.edu</a>		

**BS CSE Sample Schedule**

	Autumn		Spring	
Year 1	<i>Engr 1100</i>	1	<i>CSE 2221</i>	4
	<i>Engr 1181</i>	2	<i>Engr 1182</i>	2
	<i>Math 1151</i>	5	Math 1172	5
	<i>Physics 1250</i>	5	<i>English 1110</i>	3
	CSE 1223	3	GE	3
		16		17
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	3	GE	3
		17		16
Year 3	CSE 2431	3	CSE 32X1	3
	CSE 390X	4	CSE 34X1	3
	ECE 2020	3	CSE 35X1	3
	Math or Science Elective	4	CSE 2501	1
	GE	3	Math 2568	3
		17		16
Year 4	CSE 33X1	3	CSE 591X	4
	Technical Elective	3	Technical Elective	3
	Technical Elective	3	Technical Elective	3
	Technical Elective	3	Technical Elective	2
	GE	3	GE	3
		15		15

Admission to the CSE major requires:

- Completion of the courses shown above in *italics* or honors versions thereof
- At least 15 hours earned at Ohio State
- Cumulative GPA of at least 3.2 and a major GPA of at least 2.0 **OR** cumulative GPA of at least 3.0 and a major GPA of at least 3.2 (must have completed through CSE 2321)

Note: Majors must select a specialization option. Requirements for the specialization options may dictate core and technical elective choices.