

A suggested sequence of classes for Software Engineering majors wishing to have an emphasis in Software Design. Job titles associated with this emphasis included Software Developer, Software Engineer, and Software Architect. Please use this as a starting point when planning your classes. Note that the availability and timing of your internship will vary.

Semester 1		
BYUI101	Experience BYU-Idaho	1
CSE110	Introduction to Programming	2
ENG150	Writing and Reasoning	3
ECEN106	Computer Systems	2
WDD130	Web Fundamentals	2
REL250C	Jesus Christ Everlasting Gospel	2
		12

Semester 2		
CSE111	Programming with Functions	2
CSE130	Algorithm Design	2
CSE170	Technical Teamwork	2
WDD131	Dynamic Web Fundamentals	2
CSE199R	Freshman Discovery Project	2
REL200C	The Eternal Family	2
		12

Semester 3		
CSE131	Modularization Design	2
CSE210	Programming with Classes	2
<i>NUTR150</i>	<i>Essentials of Human Nutrition</i>	3
ITM220	SQL	3
REL225C	Foundations of the Restoration	2
<i>ART231</i>	<i>Design Thinking</i>	3
		15

Semester 4		
CSE212	Programming with Data Structures	2
CSE230	Encapsulation Design	3
CSE310	Applied Programming	3
<i>MATH221</i>	<i>Social Science Statistics</i>	3
<i>POLSC15C</i>	<i>Introduction to Comparative Politics</i>	3
REL275C	Teachings of the Book of Mormon	2
		16

Semester 5		
CSE231	Inheritance Design	2
CSE300	Professional Readiness	1
BUS301	Advanced Writing in Professional	3
CSE370	Software Engineering Principles	2
<i>WDD231</i>	<i>Web Frontend Development I</i>	2
<i>SOC111</i>	<i>Introduction to Sociology</i>	3
<i>REL351</i>	<i>World Religions</i>	2
		15

Semester 6		
CSE232	Designing Data Structures	2
ITM350	DevOps	3
CSE399R	Product Development Project	2
<i>CSE340</i>	<i>Web Backend Development</i>	3
<i>CSE325</i>	<i>.NET Software Development</i>	3
REL352	Christian History	2
		15

Between Semesters		
CSE398	Internship	3

Semester 7		
CSE331	Design Patterns	2
CSE499a	Senior Project A	2
<i>WDD331F</i>	<i>Advanced CSS</i>	2
<i>WDD360</i>	<i>Full Stack Foundations</i>	3
	<i>Electives</i>	6
		15

Semester 8		
CSE430	Architectural Design	2
CSE499b	Senior Project B	1
<i>WDD430</i>	<i>Web Full-Stack Development</i>	3
<i>REL342</i>	<i>Church History</i>	2
	<i>Electives</i>	7
		15

*Italic courses means electives or more than one option is possible*

This is a suggested sequence of classes for Software Engineering majors wishing to have an emphasis in Web Development. Job titles associated with this emphasis include Web Engineer, Web Developer, Full Stack Web Developer, Front-end Developer, Back-end Developer, Software Developer, and Software Engineer. Please use this as a starting point when planning your classes. Note that the availability and timing of your internship will vary.

Semester 1		
BYUI101	Experience BYU-Idaho	1
CSE110	Introduction to Programming	2
ENG150	Writing and Reasoning	3
ECEN106	Computer Systems	2
WDD130	Web Fundamentals	2
REL250C	Jesus Christ Everlasting Gospel	2
		12

Semester 2		
CSE111	Programming with Functions	2
CSE170	Technical Teamwork	2
WDD131	Dynamic Web Fundamentals	2
CSE199R	Freshman Discovery Project	2
REL200C	The Eternal Family	2
	<i>General Electives</i>	3
		13

Semester 3		
WDD231	Web Frontend Development I	2
CSE210	Programming with Classes	2
	<i>Natural Science</i>	3
ITM220	SQL	3
REL225C	Foundations of the Restoration	2
	<i>Arts &amp; Humanities</i>	3
		15

Semester 4		
CSE212	Programming with Data Structures	2
CSE340	Web Backend Development	3
CSE310	Applied Programming	3
	<i>Quantitative Reasoning</i>	3
	<i>Social Science</i>	3
REL275C	Teachings of the Book of Mormon	2
		16

Semester 5		
WDD331F	Advanced CSS	2
CSE300	Professional Readiness	1
ITM350	DevOps	3
BUS301	Advanced Writing in Professional	3
CSE370	Software Engineering Principles	2
	<i>Religion Elective 1</i>	2
		13

Semester 6		
WDD360	Full Stack Foundations	4
CSE399R	Product Development Project	2
	<i>Electives</i>	2
	<i>Natural Science</i>	3
	<i>Religion Elective 2</i>	2
		13

Between Semesters		
CSE398	Internship	3

Semester 7		
CSE499	Senior Project	3
WDD 430	Full Stack Development	3
	<i>Social Science</i>	3
	<i>Electives</i>	7
		13

Semester 8		
	<i>Religion Elective 3</i>	2
	<i>Natural/Social Science, Arts</i>	6
	<i>Electives</i>	8
		16

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This is a suggested sequence of classes for Software Engineering majors wishing to have an emphasis in Embedded Systems. Job titles associated with this emphasis include Embedded Systems Developer, Real-Time Software Developer, Firmware Engineer, and Software Engineer. Please use this as a starting point when planning your classes. Note that the availability and timing of your internship will vary.

Semester 1		
BYUI101	Experience BYU-Idaho	1
CSE110	Introduction to Programming	2
ENG150	Writing and Reasoning	3
ECEN106	Computer Systems	2
WDD130	Web Fundamentals	2
REL250C	Jesus Christ Everlasting Gospel	2
		12

Semester 2		
CSE111	Programming with Functions	2
CSE170	Technical Teamwork	2
WDD131	Dynamic Web Fundamentals	2
CSE199R	Freshman Discovery Project	2
REL200C	The Eternal Family	2
	<i>General Electives</i>	3
		13

Semester 3		
CSE121C	C Language	1
CSE210	Programming with Classes	2
ECEN240	Fundamentals of Digital Systems	3
ITM220	SQL	3
REL225C	Foundations of the Restoration	2
	<i>Arts &amp; Humanities</i>	3
		14

Semester 4		
CSE212	Programming with Data Structures	2
ECEN260	Microprocessor Based-System Desig	3
CSE310	Applied Programming	3
	<i>Quantitative Reasoning</i>	3
	<i>Social Science</i>	3
REL275C	Teachings of the Book of Mormon	2
		16

Semester 5		
ECEN324	Computer Architecture	3
CSE300	Professional Readiness	1
ITM350	DevOps	3
BUS301	Advanced Writing in Professional	3
CSE370	Software Engineering Principles	2
	<i>Religion Elective 1</i>	2
		14

Semester 6		
ECEN361	Embedded Systems	3
CSE399R	Product Development Project	2
	<i>Natural Science</i>	3
	<i>Natural Science</i>	3
	<i>Religion Elective 2</i>	2
		13

Between Semesters		
CSE398	Internship	3

Semester 7		
CSE499	Senior Project	3
	<i>Social Science</i>	3
	<i>Electives</i>	10
		16

Semester 8		
	<i>Religion Elective 3</i>	2
	<i>Natural/Social Science, Arts</i>	6
	<i>Electives</i>	8
		16

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This is a suggested sequence of classes for Software Engineering majors wishing to have an emphasis in Quality Assurance. Job titles associated with this emphasis include Software Testers, Quality Assurance Engineers, Automation Engineers, Software Developer, Software Engineer, and Software Test Engineer. Please use this as a starting point when planning your classes. Note that the availability and timing of your internship will vary.

Semester 1		
BYUI101	Experience BYU-Idaho	1
CSE110	Introduction to Programming	2
ENG150	Writing and Reasoning	3
ECEN106	Computer Systems	2
WDD130	Web Fundamentals	2
REL250C	Jesus Christ Everlasting Gospel	2
		12

Semester 2		
CSE111	Programming with Functions	2
CSE170	Technical Teamwork	2
WDD131	Dynamic Web Fundamentals	2
CSE199R	Freshman Discovery Project	2
REL200C	The Eternal Family	2
	<i>General Electives</i>	3
		13

Semester 3		
CSE270	Software Testing	3
CSE210	Programming with Classes	2
	<i>Natural Science</i>	3
ITM220	SQL	3
REL225C	Foundations of the Restoration	2
	<i>Arts &amp; Humanities</i>	3
		16

Semester 4		
CSE212	Programming with Data Structures	2
CSE372	Requirements Elicitation	2
CSE310	Applied Programming	3
	<i>Quantitative Reasoning</i>	3
	<i>Social Science</i>	3
REL275C	Teachings of the Book of Mormon	2
		15

Semester 5		
CSE453	Computer Security	3
CSE300	Professional Readiness	1
ITM350	DevOps	3
BUS301	Advanced Writing in Professional	3
CSE370	Software Engineering Principles	2
	<i>Religion Elective 1</i>	2
		14

Semester 6		
CSE471	UX Research	3
BUS309	Project Management	3
CSE399R	Product Development Project	2
	<i>Natural Science</i>	3
	<i>Religion Elective 2</i>	2
		13

Between Semesters		
CSE398	Internship	3

Semester 7		
CSE499	Senior Project	3
	<i>Social Science</i>	3
	<i>Electives</i>	10
		16

Semester 8		
	<i>Religion Elective 3</i>	2
	<i>Natural/Social Science, Arts</i>	6
	<i>Electives</i>	8
		16

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