Southwest Baptist UNIVERSITY

BACHELOR OF SCIENCE IN SOFTWARE ENGINEERING

FRESHMAN - FALL SEMESTER

Course	Title	Credits
ENG 1113	Communication: English Composition I	3
MAT 1195	Reasoning: Calculus I	5
UNI 1111	Opportunities: University Seminar	1
CIS 1033	Foundations of Computer Science	3
CIS 1163	Personal Cybersecurity	3
Total Credits …………………………………....…		**15**

FRESHMAN - SPRING SEMESTER

Course	Title	Credits
BIB 1013	Values: Old Testament History	3
ENG 2213 / ENG 3813	Communication: English Composition II or Communication: Professional Writing and Editing	3
UNI 1121	Reasoning: Introduction to Critical Thinking	1
DISCOVER	Values: (Spiritual Formation Options)	2
CIS 1144	Computer Science I	4
MAT 1173	Discrete Mathematics	3
Total Credits …………………………………....…		**16**

SOPHOMORE - FALL SEMESTER

Course	Title	Credits
ECO 2023	Society: Principles of Microeconomics	3
DISCOVER	Communication: (Communication Options)	3
DISCOVER	Discipline: (Discipline Options)	3
CIS 1154	Computer Science II	4
MAT 3343	Mathematical Statistics	3
Total Credits …………………………………....…		**16**

SOPHOMORE - SPRING SEMESTER

Course	Title	Credits
DISCOVER	Inquiry: (Inquiry Options)*	4
CIS 1141	Introduction to Linux and Scripting	1
CIS 2003 or CIS 4981	Web and User Experience Design or Internship in Computing	3
CIS 2213	System Analysis and Design	3
CIS 2253	Full Stack Web Development	3
Total Credits …………………………………....…		**14**

JUNIOR - FALL SEMESTER

Course	Title	Credits
DISCOVER or CIS 3313	Society: (American Studies Options) or Advanced System Analysis and Design	3
CIS 2013	Networking and Cloud Computing	3
CIS 3123	Survey of Data Science	3
CIS 3323	Database Management System Design	3
CIS 3412	Machine Organization	2
Total Credits …………………………………....…		**14**

JUNIOR - SPRING SEMESTER

Course	Title	Credits
CIS 2003 or CIS 4981	Web and User Experience Design or Internship in Computing	1
CIS 3033 or CIS 3553	Secure Software or Software Quality Assurance and Testing	3
CIS 3333	Algorithms and Data Structures	3
CIS 3433 or CHOICE	Artificial Intelligence and Machine Learning or Mathematics/Science Choice	3
CIS 3852	Computing Ethics and Professional Development	2
CHOICE	Mathematics/Science Choice	3
Total Credits …………………………………....…		**15**

SENIOR - FALL SEMESTER

Course	Title	Credits
BIB 1023	Values: New Testament History	3
DISCOVER	Enrichment: (Enrichment Options)	3
DISCOVER or CIS 3313	Society: (American Studies Options) or Advanced System Analysis and Design	3
CIS 4462	Applied Software Engineering I	2
CHOICE	Mathematics/Science Choice	6
Total Credits …………………………………....…		**17**

SENIOR - SPRING SEMESTER

Course	Title	Credits
DISCOVER	Values: (Cultural Awareness Options)	2
CIS 3033 or CIS 3553	Secure Software or Software Quality Assurance and Testing	3
CIS 3433 or CHOICE	Artificial Intelligence and Machine Learning or Mathematics/Science Choice	3
CIS 4423	Operating Systems	3
CIS 4472	Applied Software Engineering II	2
CHOICE	Mathematics/Science Choice	3
Total Credits …………………………………....…		**16**

DISCOVER Core Curriculum

*Major Requirements

Total Credits to Graduate: 123

Updated Fall 2025