Degree & Certificate Requirements

Software Development Bachelor of Applied Science (BAS)

2025-2026 Degree Requirements

BAS degrees require a minimum of 60 credits of 300- and 400-level courses

Major Courses

Course Number	Course Title	Credits	Qtr. Completed	Comments / Substitution
CS 101	Intro to Computers & Information Technology	5		
CS 102	Programming Fundamentals [M/S]	5		
or				
CS& 131	Computer Science I C++ [M/S]	5		
CS 106	Database Systems	5		
CS 117	Computer Ethics	2		
CS 135	Cloud Fundamentals [RE]	5		
CS& 141	Computer Science I Java [M/S]	5		
CS 150	Computer Security [RE]	5		
CS 162	C++2 [RE]	5		
or				
CS 202	Programming Fundamentals 2 [RE]	5		
CS 206	Database Design [RE]	5		
CS 225	SQL Server Programming [RE]	5		
CS 228	Windows Server [RE]	5		
CS 232	Network Security [RE]	5		
CS 236	Advanced Object Oriented Programming [RE]	5		
CS 250	HTML5-JavaScript/JQuery	5		
CS 301	Introduction to Information Systems	5		
CS 316	Cloud Computing HTML5 and PHP	5		
CS 321	Python for Data Processing	5		
CS 331	Big Data Analysis	5		
CS 401	Software Analysis and Design	5		
CS 411	Agile Methodology & ePortfolio Planning	5		
CS 416	Data Visualization	5		
CS 417	Contemporary Topics in Computer Science	5		
CS 421	Software Development Capstone	5		
Select 3 to 6 credits from the following:				
CS 118	Customer Service [RE]	3		
CS 217	Internship [RE]	1–3		
	Subtotal	**115-118**		

Major Support

Course Number	Course Title	Credits	Qtr. Completed	Comments / Substitution
PROJ 100	Introduction to Project Management [RE]	5		
	Subtotal	**5**		

Degree & Certificate Requirements

General Education

Course Number	Course Title	Credits	Qtr. Completed	Comments / Substitution
Communication - 15 credits:				
ENGL& 101	English Composition I [C]	5		
ENGL 410	Professional & Organizational Communication [C]	5		
CMST 415	Applied Professional Communication	5		
Quantitative/Symbolic Reasoning - select 5 credits from the following:				
MATH& 141	Precalculus I [M/S] [Q/SR]	5		
MATH& 142	Precalculus II [M/S] [Q/SR]	5		
MATH& 144	Precalculus I & II [M/S] [Q/SR]	5		
MATH& 146	Introduction to Stats [M/S] [Q/SR]	5		
MATH& 148	Business Calculus [M/S] [Q/SR]	5		
MATH& 151	Calculus I [M/S] [Q/SR]	5		
MATH& 152	Calculus II [M/S] [Q/SR]	5		
MATH& 153	Calculus III [M/S] [Q/SR]	5		
Humanities -10 credits:				
ICS 310	American Diversity [H]	5		
PHIL 305	Professional Ethics [H]	5		
Social & Behavioral Sciences - 10 credits:				
SOC 305	Cybercrime: A Sociological Perspective [S/B]	5		
ECON 305	Managerial Economics [S/B]	5		
Mathematical & Natural Science* - select 10 credits from the following:				
Choose any course from this distribution		5		
Choose a lab science from this distribution		5		
Electives – select 10 credits from the following distribution areas. Check with your program advisor for recommended elective courses from Communication, Quantitative/Symbolic Reasoning, Social & Behavioral Sciences, Humanities, and Mathematical & Natural Science distributions.				
		5		
		5		
	Subtotal	**60**		
	Total Credits Required	**180-183**		

Note:

*Course selections must meet the distribution requirements for the BAS degree.

- Students must earn a minimum 2.0 grade in all 300-400 level CS courses.
- Students must earn a minimum 2.5 grade or pass (P) in all 100-200 level CS courses.
- Required minimum 180 credits.
- Required minimum cumulative GPA 2.0.
- Combination of CA 120, CA 140, CA 150 and CA 160 can be substituted as equivalent for CS 101 for a total of 5 credits counted towards the degree. Classes and credits used for substitution cannot be used to fulfill other requirements.
- A student may not use equivalent cross-listed courses for the same graduation requirement. Refer to the Cross-Listed Courses section of the catalog for more information, and consult with your completion coach or advisor.