COMPUTER SCIENCE | BACHELOR OF SCIENCE IN COMPUTER SCIENCE

Computer Science is an area of study that involves programming, human-computer interaction, and information security.

Graduates from Fort Hays State University are prepared to enter the workforce as capable programmers and problem solvers. Possessing the knowledge and skills necessary to advance steadily in their careers.

Earning a degree in computer science will place you in high demand at a variety of federal agencies and private software and technology companies. **With both online and in-person degree options**, you will have the flexibility to suit your needs.

Program Summary

Code	Title	Hours
General Education		34
Major Courses		34-36
Required Networking Courses		12
Cognates		17
Open Electives [1]		21-23
Total Hours		**120**

[1] Open electives are the credit hours required to reach a minimum of 120 total hours and 45 upper-level hours. The number listed assumes all courses are completed at FHSU as listed. This number may vary if students transfer courses, or have individual substitutions allowed. Students should speak with their advisor if either situation applies to determine if the number will vary, and to ensure they enroll in a minimum of 45 upper-level hours.
Students entering within 1 year of high school graduation will take UNIV 101 Freshman Seminar and may apply that hour in the open elective category.

Program Requirements
General Education

All undergraduate degrees require completion of the Kansas Systemwide General Education (https://catalog.fhsu.edu/general-education/).

Courses identified with [GE] on this page may satisfy a general education requirement in addition to the identified degree requirement. Students who apply a degree requirement to satisfy a general education requirement will typically add an equal number of hours to the the university elective category. This flexibility may allow you to complete a minor or certificate within the 120 hour degree. Transfer students and students majoring in programs with approved exceptions (https://www.fhsu.edu/general-education/documents/fhsu-gen-ed-transfer-exceptions-explainer1.pdf) are especially encouraged to select these courses in completing General Education requirements to maximize the likelihood of completing the degree with 120 credit hours.

Code	Title	Hours
General Education		**34-35**

Code	Title	Hours
Major Core Courses		
CSCI 111	Survey of Computer Science	3
CSCI 121	Computer Science I	3
CSCI 221	Computer Science II	3
CSCI 231	Object-Oriented Programming	3
CSCI 241	Foundations of Computing	3
CSCI 251	Data Structures	3
CSCI 321	Assembly Language	3
CSCI 331	Operating Systems	3
CSCI 421	Programming Languages	3
CSCI 431	Computer Graphics	3
CSCI 441	Software Engineering	3
CSCI 675	Seminar in Software Engineering	1-3
Required Networking Courses		
INF 250	Introduction to Web Development	3
INF 651	Front End Web Development I	3
INF 652	Database Design and Programming	3
INF 653	Back-End Web Development I	3
Cognates		
INF 101	Introduction to Computer Information Systems [GE, 1]	3
MATH 110	College Algebra [GE, 1]	3
MATH 122	Plane Trigonometry [GE]	3
MATH 234	Analytic Geometry and Calculus I [GE]	5
MATH 250	Elements of Statistics [GE]	3
Total Hours		**63-65**

[1] Clep exam available.

Degree Requirements

Code	Title	Hours
All bachelor degrees require:		
GPA of 2.0 on FHSU courses & 2.0 on all coursework (Higher program requirements prevail over the 2.0 when set)		
A minimum of 30 hours earned from FHSU with a grade of D, C, B, or A		
Successful completion of an upper division Writing and Information Literacy course (Most majors contain a course designated)		
A minimum of 45 hours of recognized upper division credit		
A minimum of 120 hours of recognized college credit		

Degree Maps

Course	Title	Hours
First Year		
Fall		
MATH 110	College Algebra	3
ENG 101	English Composition I	3
COMM 100	Fundamentals of Oral Communication	3
UNIV 101	Freshman Seminar	1
CSCI 111	Survey of Computer Science	3
	Hours	**13**

Spring

INF 101	Introduction to Computer Information Systems	3
SGE040 - Natural Physical Science Discipline Area		4
ENG 102	English Composition II	3
CSCI 121	Computer Science I	3
MATH 122	Plane Trigonometry	3
	Hours	**16**

Second Year

Fall

SGE060 - Arts Humanities Discipline Area		3
CSCI 221	Computer Science II	3
INF 250	Introduction to Web Development	3
MATH 234	Analytic Geometry and Calculus I	5
	Hours	**14**

Spring

SGE060 - Arts Humanities Discipline Area		3
CSCI 231	Object-Oriented Programming	3
CSCI 241	Foundations of Computing	3
INF 652	Database Design and Programming	3
MATH 250	Elements of Statistics	3
	Hours	**15**

Third Year

Fall

SGE050 - Social Behavioral Sciences Discipline Area		3
CSCI 251	Data Structures	3
CSCI 321	Assembly Language	3
INF 651	Front End Web Development I	3
Open Electives		3
Open Electives		2
	Hours	**17**

Spring

SGE050 - Social Behavioral Sciences Discipline Area		3
CSCI 331	Operating Systems	3
CSCI 421	Programming Languages	3
INF 653	Back-End Web Development I	3
Open Electives		3
	Hours	**15**

Fourth Year

Fall

CSCI 441	Software Engineering	3
CSCI 431	Computer Graphics	3
Open Electives		3
Open Electives		3
PHIL 100	Critical Thinking	3
	Hours	**15**

Spring

CSCI 675	Seminar in Software Engineering	3
Open Electives		3
Open Electives		3
Open Electives		3
Open Electives		3
	Hours	**15**
	Total Hours	**120**

Academic Degree Maps are term-by-term sample course plans that specify milestones, courses, and special requirements that are necessary for facilitating on-time completion. Degree Maps are *examples* and are not prescriptive. Individualized choices such as concentration options, transfer credits, optional minors, advisory programs (certificates), etc. can alter the recommended coursework. Course offerings are subject to change. Students should consult with their academic advisors for additional guidance on course planning.

To determine courses to take in the directed choices (often listed as Program Elective Course) and directed elective course blocks see the overview tab for courses. To locate approved courses in General Education areas (Undergraduate Programs) see the general education section (https://catalog.fhsu.edu/general-education/) of the catalog.

The undergraduate course maps typically advise the most efficient route for students to complete the general education requirements. Courses that are required in the major may be listed as fulfilling relevant general education requirements. This will result in more open elective course hours in some maps than is listed on the degree overview page.