COMPUTER SCIENCE + HEALTH INFORMATION MANAGEMENT, B.A.

Health data is the most sensitive, most regulated, and most consequential data in existence. SLU's Bachelor of Arts in Computer Science + Health Information Management program prepares students to design, secure, and manage health information systems with both technical depth and genuine regulatory fluency — HIPAA, clinical coding standards, EHR systems, and health data governance included. Health care IT demand is high and growing. This Saint Louis University program puts you at the center of it.

Curriculum Overview

- Software engineering, database design, data architecture, and cybersecurity
- HIPAA privacy and security rules, health information governance and data quality
- Clinical coding systems: ICD-10, CPT, SNOMED CT, LOINC
- Health data interoperability: HL7, FHIR; EHR platforms: Epic, Cerner

Experiential and Applied Learning

Students have the opportunity for internships with hospital HIM departments, health IT vendors, and public health agencies.

Careers

- Health informatics analyst, EHR consultant, health care cybersecurity analyst
- HIPAA compliance officer, health IT project manager, population health scientist
- Typical entry salary: $62,000 – $110,000
- 97%+ employed or in graduate school within six months

Tuition

Tuition/Fee	Cost Per Year
Undergraduate Tuition	$58,960
University Fees	$1,000

Additional charges may apply. Other resources are listed below:

Net Price Calculator (https://www.slu.edu/financial-aid/tuition-and-costs/calculator.php)

Cost of Attendance (https://www.slu.edu/financial-aid/tuition-and-costs/cost-of-attendance.php)

Information on Tuition and Fees (https://catalog.slu.edu/academic-policies/student-financial-services/tuition/)

Miscellaneous Fees (https://catalog.slu.edu/academic-policies/student-financial-services/fees/)

Information on Summer Tuition (https://catalog.slu.edu/academic-policies/student-financial-services/tuition-summer-current/tuition-summer-current.pdf)

Scholarships and Financial Aid

For more information about Saint Louis University scholarships and financial aid, please visit the Office of Student Financial Services (https://www.slu.edu/financial-aid/types-of-aid/).

Learning Outcomes

1. Analyze a complex computing problem and apply principles of computing and other relevant disciplines to identify solutions.
2. Design, implement, evaluate and test a software system that meets a given set of computing requirements.
3. Apply computer science theory, knowledge of computer systems and software development fundamentals to produce computing-based solutions.
4. Communicate effectively to both professional and general audiences in both oral and written forms.
5. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
6. Function effectively as a member of a team in developing computing technology and solving technical problems.
7. Synthesize computational methods and health information management principles to design, evaluate or secure health data systems that meet clinical, regulatory and privacy obligations in real health care environments.

Requirements

Code	Title	Credits
University Undergraduate Core (https://catalog.slu.edu/academic-policies/academic-policies-procedures/university-core/)		**32-35**
Major Requirements		**71-72**
Select a CSCI 10xx: Introduction to Computer Science (p. 2)		3
CSCI 1300	Introduction to Object-Oriented Programming	4
CSCI 2100	Data Structures	4
CSCI 2300	Object-Oriented Software Design	3
CSCI 2500	Computer Organization and Systems	3
CSCI 2510	Principles of Computing Systems	3
CSCI 3100	Algorithms	3
CSCI 4961	Capstone Project I	2
CSCI 4962	Capstone Project II	2
Select one Systems Elective course (p. 2)		3
Two additional 3000 or 4000 level CSCI elective courses		6
Required Mathematics Courses		
MATH 1510	Calculus I	4
MATH 1520	Calculus II	4
MATH 1660	Discrete Mathematics	3
STAT 3850	Foundation of Statistics	3
Required Computer Ethics		
PHIL 3050X	Computer Ethics	3
Health Information Management Requirements		
HSCI 2000	The US Health Care System	3

HSCI 2200	Medical Terminology	3
HIM 3000	Introduction to Health Information Concepts and Practice	3
BTM 2000	Introduction to Business Technology Management	3
CS + HIM Electives		*6-7*
Select two of the following courses		
HIM 3200	Health Data Management	
HIM 3400	Coding and Classification Systems	
HIM 4400	Clinical Data Analytics	
HIM 4510	Health Care Revenue Cycle Management	
HIM 4750	Fundamentals of Clinical Medicine	
University Electives		**13-17**
Total Credits		**120**

Introduction to Computer Science

Code	Title	Credits
CSCI 1010	Introduction to Computer Science: Principles	
CSCI 1020	Introduction to Computer Science: Bioinformatics	
CSCI 1025	Introduction to Computer Science: Cybersecurity	
CSCI 1030	Introduction to Computer Science: Game Design	
CSCI 1040	Introduction to Computer Science: Mobile Computing	
CSCI 1050	Introduction to Computer Science: Multimedia	
CSCI 1060	Introduction to Computer Science: Scientific Programming	
CSCI 1070	Introduction to Computer Science: Taming Big Data	
CSCI 1080	Introduction to Computer Science: World Wide Web	
CSCI 1090	Introduction to Computer Science: Special Topics	

With permission, a computing-intensive course from another discipline may be substituted as long as it is not already fulfilling another requirement. Examples of such courses include:

BME 2000	Biomedical Engineering Computing
CVNG 1500	Civil Engineering Computing
STAT 3850	Foundation of Statistics

Systems Electives Courses

Code	Title	Credits
CSCI 4500	Operating Systems	
CSCI 4530	Computer Security	
CSCI 4550	Computer Networks	
CSCI 4610	Concurrent and Parallel Programming	
CSCI 4620	Distributed Computing	

Non-Course Requirements

All School of Science and Engineering B.A. and B.S. students must complete an exit interview/survey near the end of their bachelor's program.

Continuation Standards

After declaring a computer science major, students must achieve a minimum GPA of 2.00 in computer science courses by the conclusion of their second year as a major and maintain such a GPA at the conclusion of each semester thereafter. Furthermore, students should require at most two attempts to successfully complete any computer science courses required for the major (where an unsuccessful attempt is considered a "D" or "F" for courses numbered 2100 and lower, and an "F" in higher-level courses).

Students are also expected to make adequate progress in the major, typically by enrolling in at least one computer science course per semester until completing their coursework (with exceptions made for premed scholars during their first year, and all students if studying abroad or facing other such extenuating circumstances).

Program Notes

At most, three credit hours of internship with industry courses can be applied to the degree.

Roadmap

This roadmap is just one example of a semester-by-semester plan of study for this program. There are other plans students can and do take. The plan of study for each particular student is established in consultation with each student's academic advisor; *this roadmap does not replace academic advising appointments.*

Roadmap notes:

- This Roadmap assumes full-time enrollment unless otherwise noted.
- Courses/Milestones marked with an "!" are critical and must be completed in the semester listed in the Roadmap to ensure a timely graduation.
- Course availability and sequencing are subject to change.

Course	Title	Credits
Year One		
Fall		
CSCI 10XX	Introduction to Computer Science	3
MATH 1660	Discrete Mathematics	3
CORE 1700	Ultimate Questions: Philosophy	3
CORE 1000	Ignite First Year Seminar	3
CORE 1500	Cura Personalis 1: Self in Community	1
CORE 1900	Eloquentia Perfecta 1: Written and Visual Communication	3
	Credits	**16**
Spring		
CSCI 1300	Introduction to Object-Oriented Programming	4
MATH 1510	Calculus I	4
CORE 1600	Ultimate Questions: Theology	3
HSCI 2000	The US Health Care System	3

CORE	Equity and Global Identities: Identities in Context	3
	Credits	**17**
Year Two		
Fall		
MATH 1520	Calculus II	4
CSCI 2100	Data Structures	4
HSCI 2200	Medical Terminology	3
HIM 3000	Introduction to Health Information Concepts and Practice	3
CORE 2500	Cura Personalis 2: Self in Contemplation	0
	Credits	**14**
Spring		
CSCI 2500	Computer Organization and Systems	3
CSCI 2300	Object-Oriented Software Design	3
BTM 2000	Introduction to Business Technology Management	3
STAT 3850	Foundation of Statistics	3
CORE 3500	Cura Personalis 3: Self in the World	1
CORE 3600	Ways of Thinking: Social and Behavioral Sciences	3
	Credits	**16**
Year Three		
Fall		
CSCI 2510	Principles of Computing Systems	3
CSCI 3000-level or 4000-level elective		3
CS + HIM Elective		3
CORE 1200	Eloquentia Perfecta 2: Oral and Visual Communication	3
University Elective		3
	Credits	**15**
Spring		
CSCI 3000-level or 4000-level elective		3
PHIL 3050X	Computer Ethics	3
CS + HIM Elective		3
CORE 2800	Eloquentia Perfecta 3: Creative Expression	3
Systems Elective		3
	Credits	**15**
Year Four		
Fall		
CSCI 4961	Capstone Project I	2
CSCI 3100	Algorithms	3
CORE	Eloquentia Perfecta: Writing Intensive	3
CORE 4000	Collaborative Inquiry	3
University Elective		3
	Credits	**14**
Spring		
CSCI 4962	Capstone Project II	2
CORE 3800	Ways of Thinking: Natural and Applied Sciences	3
CORE 4500	Reflection-in-Action	0
CORE 3400	Ways of Thinking: Aesthetics, History, and Culture	3
University Electives		5
	Credits	**13**
	Total Credits	**120**

Contact Us

For more information about computer science programs, please call 314-977-6667 or email cs@slu.edu.