

# COMPUTER SCIENCE, B.S.

Computer Science topics are extremely relevant in today's society, and St. Scholastica's Computer Science major gives students the technical, theoretical, and ethical skills necessary to succeed in today's world. Computer Science at St. Scholastica is taught using a practical methodology - students gain hands-on experience with real-world topics.

Graduates find work in a variety of large and small organizations as software developers, data analysts, web developers, application programmers, database specialists and business/system analysts. This major also prepares students for graduate studies.

## Contact Information

cis@css.edu

## Learning Outcomes

The student completing the Computer Science major will be able to:

- Analyze, design, and construct solutions to simple and complex problems
- Research, evaluate, select and apply technologies and methodologies to meet organizational needs
- Effectively communicate technical ideas with team members and stakeholders through oral presentations, written documents, and software documentation
- Articulate and apply personal and organizational values within the context of professional codes of ethics and the Benedictine values.
- Design and build a complex software solution
- Understand and apply the theory of computational problems

## Requirements

Students must achieve the following program requirements for all courses listed under Program Requirements and Program Required Courses for the Computer Science major.

A student may not major in both Computer Science and Computer Information Systems.

### Program Requirements

**Major Credits: 77**

**Major Residency Credits: 16**

**Minimum GPA: 2.0**

### Program Required Courses

Code	Title	Credits
CIS 1001	Computer Science Principles	4
CIS 2011	Computer Architectures	4
CIS 2085	Programming I with/Java	4
CIS 2087	Programming II w/Java	4
CIS 3089	Data Structures and Algorithm Analysis	4
CIS 3107	Database Modeling	4
CIS 3108	Systems Analysis and Design	4
CIS 3115	Machine Learning for Data Science	4
CIS 3230	Game Design and 3-D Modeling	4
CIS 3285	Software Design	4
CIS 3334	Mobile Device Programming	4

CIS 4041	Web Design	4
CIS 4108	Project Management	2
CIS 4109	Capstone Project	4
CIS 4042	Computer Security	2
CIS 4200	Full-Stack Web Development	4
CIS 4555	Systems Development Internship	1
CIS 4777	Topics	4
ENG 3364/ MGT 3150	Management Communications: Written	4
<b>Electives</b>		
Select 8 credits from the following		8
MTH 2221	Calculus I	
MTH 2222	Calculus II	
MTH 2401	Discrete Mathematics I	
MTH 2442	Introduction to Data Analysis and Applied Statistics	

**Total Credits** 77

<sup>1</sup> CIS 4777 Topics will include subjects such as Computer Theory, Programming Language Theory, Operating Systems, Advanced Computer Architecture and Networking.

## Degree Requirements

To graduate from The College of St. Scholastica, baccalaureate students must meet the following minimum degree requirements.

**Total Credits: 120**

**Upper Division Credits: 40**

**Residency Requirement: 30**

**Minimum GPA: 2.0**