

## 2024-2025 Catalog

### Computer Science

Bachelor of Science  
**Academic Department**  
Mathematics

The Bachelor of Science in Computer Science program emphasizes a comprehensive foundation in computer science through 32 credit hours of specialized coursework. These courses cover essential topics including programming, data structures, computer organization, database systems, operating systems, and networks. The curriculum culminates in a capstone System Development Project, preparing students for real-world application of their skills in software development and computer systems.

**Total Credits 68**

#### Bachelor's Degree Requirements

The following overall requirements are needed in order to earn a bachelor's degree. For a full explanation of the requirements, please see policy [A.04.01](#).

- Completion of the [core curriculum](#). Specific core plan is dependent upon accepted transfer credit, major, and Honor's Program participation.
- Successful completion of *at least* 120 credit hours, with the final 36 hours taken in Residence at UST. Total credits listed on the page only reflect the major.
- Completion of a major.
- Completion of 36 upper-division credit hours.
- A cumulative grade point average (GPA) above 2.0
- A cumulative GPA above 2.0 in your major
- [Freshman Symposium](#) is a one-credit hour, mandatory course exclusively for first-year students at the University of St. Thomas, introducing them to the UST mission and the Basilian Fathers' core values of goodness, discipline, and knowledge. Freshmen register for it during the Freshmen Registration/Orientation events and can choose a class that aligns with their interests, with course descriptions provided in advance.

#### Computer Science

Course Code	Course Title	Credits
<input type="checkbox"/> COMSC 1450	Introduction to Programming and Computer Science	4.0
<input type="checkbox"/> COMSC 1451	Object Oriented Programming	COMSC 1451 Prerequisite: COMSC 1450 4.0
<input type="checkbox"/> COMSC 2351	Data Structures	COMSC 2351 Prerequisite: COMSC 1451 3.0
<input type="checkbox"/> COMSC 3365	Organization of Computer Programming Languages	COMSC 3365 Prerequisites: COMSC 1451 3.0
<input type="checkbox"/> COMSC 3375	Database Systems	COMSC 3375 Prerequisites: COMSC 1451 3.0
<input type="checkbox"/> COMSC 3385	Computer Architecture	COMSC 3385 Prerequisites: COMSC 1451 3.0
<input type="checkbox"/> COMSC 4101	Computer Science Seminar	1.0

<input type="checkbox"/>	COMSC 4320	Operating Systems	COMSC 4320 Prerequisites: COMSC 3385	3.0
<input type="checkbox"/>	COMSC 4340	Computer Networks	COMSC 4340 Prerequisite: COMSC 1451	3.0
<input type="checkbox"/>	COMSC 4345	Foundations of Data Science	COMSC 4345 Prerequisites: COMSC 3375	3.0
<input type="checkbox"/>	COMSC 4350	System Development Project	Prerequisite: Senior Standing	3.0

## Computer Science Electives

Complete six hours of the following courses:

Course Code	Course Title		Credits
<input type="checkbox"/> COMSC 3371	Introduction to Data Analytics	COMSC 3372 Prerequisite MATH 2435, or MATH 3332, or MATH 3450, or PSYC 3433	3.0
<input type="checkbox"/> COMSC 3372	Data Visualization	COMSC 3372 Prerequisite MATH 2435, or MATH 3332, or MATH 3450, or PSYC 3433	3.0
<input type="checkbox"/> GCSE 4301	Governing the Digital Ecosystem – Technology and Geopolitics	GCSE 4301 Prerequisites: GCSE 3301/3101, 3302/3102	3.0
<input type="checkbox"/> GCSE 4379	Cyber Warfare		3.0
<input type="checkbox"/> COMSC 4393	Special Projects with Department Chair Approval		3.0

## Mathematics

Course Code	Course Title		Credits
<input type="checkbox"/> MATH 1431	Calculus I	MATH 1431 Prerequisite: Grade of 'C' or better in MATH 1430 or department consent.	4.0
<input type="checkbox"/> MATH 1432	Calculus II	MATH 1432 Prerequisite: Grade of 'C' or Better in MATH 1431	4.0
<input type="checkbox"/> MATH 2431	Calculus III	MATH 2431 Prerequisite: MATH 1432 with a grade of "C" or better	4.0
<input type="checkbox"/> MATH 3334	Linear Algebra I	MATH 3334 Prerequisite: MATH 1432	3.0
<input type="checkbox"/> MATH 3335	A First Course in Probability	MATH 3335 Prerequisite: MATH 1432	3.0
<input type="checkbox"/> MATH 3360	Discrete Mathematics	MATH 3360 Prerequisite: MATH 1431	3.0
<input type="checkbox"/> MATH 3450	Biostatistics I	MATH 3450 Pre/Corequisites: Six hours of MATH, BIOL, CHEM, PHYS, ENGR or PSYC.	4.0

## Lab Science Course Requirement

Complete at least one lecture/lab in an approved science area (BIOL, CHEM, PHYS).