Choose UMSL

And your major.

# Computing Technology BS

*The B.S. in computing technology is a newer degree program that favors exposure to a wide variety of tools and technologies over the traditional computer science background. This degree is designed for those interested in broad and deep computing education but without some traditional advanced courses. It is meant for those who want to focus more on technologies and transition to fulfilling careers or those interested in future graduate study in an area related to computer science.*

## Career Outlook

Students completing this degree can find in-demand careers in many related areas such as cybersecurity, networks, internet programming, software and mobile apps development, data science, AI, graphics, or pursue additional graduate studies. According to federal and local government statistics, the demand for graduates with such technical skills exceeds supply and is expected to grow faster than average, with above average salaries.

## Future Career Options

- Computer Network Architects
- Computer Programmers
- Computer Support Specialists
- Computer Systems Analytics
- Database Administrators
- Information Security Analyst
- Network and Computer Systems Administrators
- Software Developers
- Web Developers

## Skills developed by degree completion

- Solve and compare alternative solutions to a variety of computational problems
- Design, code and document solutions to computational problems
- Design, evaluate, and manage information technology infrastructure in an organization
- Create secure software systems
- Effectively communicate computing technology concepts and solutions
- Recognize and promote responsibilities in the computing / software profession
- Use multiple programming languages

**4-YEAR ACADEMIC MAP**

*Successful alumni have gone on to fulfill many of the opportunities above. Additional possibilities are taken from the Bureau of Labor Statistics.*
***Contact an advisor to discuss additional future career options.***

UMSL | Arts & Sciences
University of Missouri–St. Louis

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**Department of Mathematics & Computer Science**
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314-516-6355
**umsl.edu/cs**

**Academic Advising**
303 Lucas Hall
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artscience@umsl.edu
**umsl.edu/cas/advising**

# Bachelor of Science in Computing Technology

## Year 1

### FALL SEMESTER *(15 credit hours)*

- MATH 1030: College Algebra (3)
- MATH 1035: Trigonometry (2)
- ENGL 1100: First-Year Writing (3)
- GEN ED EXPLORE: Humanities & Fine Arts (3)
- GEN ED EXPLORE: Social Sciences (3)
- INTDSC 1003: University Studies (1)

### SPRING SEMESTER *(17 credit hours)*

- CMP SCI 1250: Introduction to Computing (3)
- MATH 1800: Analytical Geometry and Calculus I (5)
- GEN ED EXPLORE: Humanities & Fine Arts (3)
- GEN ED EXPLORE: Social Sciences (3)
- GEN ED CORE: US History & Government (3)

## Year 2

### FALL SEMESTER *(15 credit hours)*

- CMP SCI 2250: Programming and Data Structures (3)
- CMP SCI 2700: Computer Organization and Architecture (3)
- MATH 1320: Introductory Probability and Statistics (3)
- MATH 3000: Discrete Structures (3)
- Cultural Diversity (3)

### SPRING SEMESTER *(15 credit hours)*

- CMPS SCI 2261: Object-Oriented Programming (3)
- CMP SCI 2750: System Programming and Tools (3)
- CMP SCI 3010: Web Programming (3)
- GEN ED CORE: Communication Proficiency (3)
- GEN ED EXPLORE: Social Sciences (3)

## Year 3

### FALL SEMESTER *(15 credit hours)*

- CMP SCI 4010: Advanced Web Development with Java (3)
- CMP SCI 3XXX: Computer Science Elective (3)
- INFSYS 3844: Developing Business Apllication in .NET (3)
- ENGL 3130: Technical Writing (3)
- Elective (3)

### SPRING SEMESTER *(15 credit hours)*

- CMP SCI 3760: Cyber Threats and Defense (3)
- CMP SCI 3XXX: Computer Science Elective or INFSYS 3XXX: Information Systems Elective (3)
- INFSYS 3868: Secure Software Development (3)
- GEN ED EXPLORE: Humanities & Fine Arts (3)
- Elective (3)

## Year 4

### FALL SEMESTER *(15 credit hours)*

- CMP SCI 4610: Database Management Systems (3)
- CMP SCI 3XXX: Computer Science Elective or INFSYS 3XXX: Information Systems Elective (3)
- CMP SCI 3XXX: Computer Science Elective (3)
- Elective (3)
- Elective (3)

### SPRING SEMESTER *(13 credit hours)*

- CMP SCI 4500: Introduction to the Software Profession (3)
- CMP SCI 3XXX: Computer Science Elective (3)
- CMP SCI 3XXX: Computer Science Elective (3)
- Elective (3)
- Elective (1)

**Degree completed!**

Last Updated May 2023

2023-2024

# 4-YEAR ACADEMIC MAP

This is a sample academic map for the courses to take each academic semester/session. ***This map is not a substitute for academic advisement.*** Contact your advisor when making final selections.

**– University Studies** is required for all first-year students and those with less than 24 credit hours.

**– Milestone courses** should be taken in the order shown to ensure you stay on a timely and accurate path toward graduation.

**– Summer and Intersession courses** Don't forget that summers and winter breaks are a way to fast-track your route to degree completion – and lighten your load during fall and spring!

Ready to be an UMSL Triton? Apply today.

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