

# Computer Science 4+1



## Stronger. Better. Faster. Kick-start your high-tech career.

### Why Study at Rivier?

Save time and tuition. With Rivier's 4+1 program, you'll earn an undergraduate and graduate degree in just five years and gain the skill sets and credentials to quickly advance your career.

### Build Your Knowledge Base

As an undergraduate, you will acquire a conceptual understanding of computer systems and significant project experience in computing areas such as programming, networking, operating systems, software engineering, databases, and web development.

Concentrations in Cybersecurity, Data Science, and Software Engineering offer the opportunity to specialize in your area of greatest interest.

This 4+1 program provides a seamless transition from the undergraduate program to the M.S. in Computer Science degree. Additionally, 4+1 students complete their master's degree with 30 graduate credits, rather than the standard 36-credit requirement.

### Gain Real-World Experience

Coursework, internships, and extracurricular activities will enable you to best prepare for professional positions. Rivier's campus is ideally located in Nashua, New Hampshire, a high-tech hub with diverse job opportunities at companies from Manchester, New Hampshire, to Boston, Massachusetts.

### Begin Your Career

Rivier's 4+1 program graduates can pursue careers as:

- Senior software developers
- Network/software architects
- Master data analysts
- Database administrators
- Data scientists
- Machine learning engineer
- Artificial intelligence developers

## Journeys of Transformation

Rivier University's core curriculum, titled *Journeys of Transformation*, aligns with the American Association of College & Universities essential learning outcomes. Coursework focuses on developing strong intellectual and practical skills for workforce success, and offers opportunities for service learning, servant leadership, and civic engagement to enhance leadership abilities.



**12,175 sq. ft.**  
high-tech Cybersecurity  
Lab and Tech Hub  
opened in 2022



**100%**  
of students complete  
internships, field  
experiences, or service  
learning programs



**36,000 sq. ft.**  
cutting-edge  
Science & Innovation  
Center



**90+ years**  
of educational  
excellence



**100%**  
of students receive  
financial aid



## B.S. Course of Study

### COMPUTER SCIENCE CORE COURSES

COMP 101	Coding Adventures I	COMP 385	Object-Oriented Programming using Java
COMP 103	Coding Adventures II		
COMP 245	Introduction to Computer Architecture	COMP 405	Introduction to Software Engineering
COMP 301	Computer Science Fundamentals	COMP 431	Operating Systems
COMP 308	Computer Networks	COMP 450	Capstone Project
COMP 315	Introduction to Algorithms	COMP 495	Internship I
COMP 335	Database Management Systems	CYBR 250	Cyber Law & Ethics

### MAJOR ELECTIVE COURSES

#### Organized by Concentration

##### Cybersecurity

COMP 442	Information Technology
COMP 448	Computer Security
CYBR 310	Ethical Hacking & Systems Defense
COMP 478	Advanced Networking

##### Game Programming

COMP 290	Computer Graphics
COMP 370	Game Programming I
COMP 371	Game Programming II

##### Software Development

COMP 360	Web Development
COMP 405	Introduction to Software Engineering

##### Data Science

COMP 444	Knowledge-Based Systems
COMP 446	Data Mining
COMP 447	Artificial Intelligence and Machine Learning
COMP 449	Robotics
COMP 452	Intelligent Systems
COMP 460	Deep Learning
COMP 461	Natural Language Processing

## M.S. Course of Study

### REQUIRED COURSES

COMP 552	Object-Oriented Design	COMP 557	Algorithms
COMP 553	Networking Technologies	COMP 585	Practical Java Programming
COMP 554	Operating Systems	COMP 699	Professional Seminar
COMP 556	Computer Architecture		

### COMPUTER SCIENCE ELECTIVES

Select three of the following:

CS 572	Computer Security	CS 680	Software Quality Assurance
CS 597	Multimedia and Web Development	CS 698	Professional Internship
CS 608	Software Engineering	CS 690-696	Topics in Computer Science
CS 612	Information Technology		
CS 616	Data Mining		
CS 664	Knowledge-Based Systems		

The University reserves the right to make changes when appropriate and necessary as needed without notification. (1025)

## Employment Promise Program

Rivier's **Employment Promise Program** enhances the career preparation and employability of students in all academic disciplines. The program includes mentorship through Rivier's Career Development Center and features a tailored four-year academic and professional development plan, integrating experiences that have been shown to enhance overall employability and improve job search success.

Confidence in the quality of a Rivier education enables the University to ensure invested students will secure employment within nine months of graduation. If not, the University will provide the student additional financial or educational support. Get more information at [rivier.edu/EPP](http://rivier.edu/EPP).



## You're Invited

Attend an on-campus event, or schedule an individual campus tour for you and your family. You can access a complete listing of events and register online at [events.rivier.edu](http://events.rivier.edu) or call us at (603) 897-8507.

## Academic Accreditation

Rivier University is accredited by the New England Commission of Higher Education (NECHE).



## Quick Links



Ask a Question  
[admissions@rivier.edu](mailto:admissions@rivier.edu)



Talk to an Admissions Counselor  
[rivier.edu/team](http://rivier.edu/team)



Schedule a Visit  
[events.rivier.edu](http://events.rivier.edu)



Tuition & Fees  
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