

Computer Science, M.S.C.S., Ph.D.

Degrees Offered

- Master of Science in Computer Science (M.S.C.S.)
- Doctor of Philosophy in Computer Science (Ph.D.)

Nature of the Program

The Masters of Science in Computer Science (M.S.C.S.) degree program qualifies a student to assume a professional role in industry or government, teach in a junior or senior college, or undertake advanced training toward a doctorate in computer science.

Program Educational Objectives

The objective of the Masters of Science in Computer Science (M.S.C.S.) degree program is to produce graduates who have the knowledge, skills, and attitudes that will ensure success in professional positions in business, industry, research, government service, or in further graduate or professional study.

Specific outcomes that will be achieved by graduates of the program are:

- Achieve a depth of proficiency in a specific field of Computer Science by completing major courses in one of three areas: computer systems, software and knowledge engineering, or the theory of computation.
- Achieve a breadth of understanding of Computer Science by completing minor coursework requirements in other areas, and by participation in graduate seminar requirements.
- Demonstrate professionalism and communication skills through completion of coursework, project, or thesis defense.

Admissions for 2026-2027

MASTER ADMISSIONS

To be eligible for admission into the Master of Science in Computer Science degree program, a candidate must fulfill the following requirements:

- A minimum cumulative GPA of 3.0 or equivalent, based on a 4.0 system.
- A statement of purpose.
- Three letters of reference.
- All applicants require an appropriate bachelors degree for entry. Students lacking some foundation courses appropriate to a particular degree program may be assigned some preparatory coursework as a condition of admission (see Foundation .
- International applicants must meet the WVU requirement of English language proficiency (<https://graduateadmissions.wvu.edu/information-for/international-students/>).

DOCTORAL ADMISSIONS

To be eligible for admission into the doctoral program, a candidate must fulfill the following requirements:

- A minimum cumulative GPA of 3.0 or equivalent, based on a 4.0 system.
- A statement of purpose.
- Three letters of reference.
- Submission of GRE scores. GRE scores are required for admission and to be considered for graduate assistantships. The GRE requirement can be waived for students from:
 - ABET accredited undergraduate programs with an MS GPA of 3.2 or better.
 - A computer science, electrical engineering, or computer engineering program with a Top 600 QS world program ranking with a 3.2 BS GPA and/or 3.2 MS GPA.
 - An institution with a top 1000 QS world ranking with a 3.2 BS GPA and/or 3.2 MS GPA.
- All applicants require an appropriate bachelors or masters degree for entry. Students lacking some foundation courses appropriate to a particular degree program may be assigned some preparatory coursework as a condition of admission (see Foundation Assessment section).
- International applicants must meet the WVU requirement of English language proficiency (<https://graduateadmissions.wvu.edu/information-for/international-students/>).

FOUNDATION ASSESSMENT

The minimum background expected of any student entering the Masters of Science in Computer Science program is coursework equivalent to the following:

- One year of calculus (MATH 155 (<http://catalog.wvu.edu/search/?P=MATH%20155>) and MATH 156 (<http://catalog.wvu.edu/search/?P=MATH%20156>)).
- One course in probability and statistics (STAT 215 (<http://catalog.wvu.edu/search/?P=STAT%20215>)).
- Knowledge of introductory programming in a high-level programming language (CS 110 (<http://catalog.wvu.edu/search/?P=CS%20110>)).

Students not meeting these minimum requirements will be required to take the equivalent coursework before applying to the M.S.C.S. program.

Students entering without a four-year Bachelors degree in Computer Science may have additional deficiencies in their coursework which must be addressed before beginning the regular program. These students will be initially admitted with provisional status and required to remove these deficiencies during their first eighteen hours of coursework.

Possible deficiency areas for students having a Bachelors degree in other disciplines represent the following core areas required of all undergraduate CS students:

Code	Title	Hours
CS 111 & 111L	Introduction to Data Structures and Introduction to Data Structures Laboratory	4
CS 220	Discrete Mathematics	3
CS 310	Principles of Programming Languages	3
CS 320	Analysis of Algorithms	3
CS 330 & 330L	Introduction to Software Engineering and Introduction to Software Engineering Laboratory	4
CS 350	Computer System Concepts	3

As demand justifies and resources permit, the department will offer accelerated courses to assist graduate students in satisfying deficiencies.

MSCS Major Code: 3022

PhD Major Code: 3023

For specific information on the following programs, please see the links to the right:

- Computer Science, M.S.C.S.

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- Computer Science, Ph.D.