

UMW-CEC/Mason Pre-Master's Program Computer Science, MS

The Computer Science graduate program prepares students for research and practice in computer science, in related technologies, and in other domains in which integration of computer science is essential for success. The program educates students in both fundamentals and advanced learning in artificial intelligence and databases, programming languages and software engineering, systems and networks, theoretical computer science, and visual computing.

Benefits of enrolling:

The UMW-CEC/Mason Pre-Master's Program allows UMW students to earn up to nine credit hours of selected George Mason University (Mason) graduate courses for credit toward their UMW undergraduate degrees. UMW students subsequently admitted to the CEC/Mason MS program in Computer Science may then apply those same graduate credit hours toward their MS. Students are referred to the following program links for full information: cec.gmu.edu and catalog.gmu.edu/colleges-schools/engineering-computing/.

Program Eligibility:

UMW students entering the UMW-CEC/Mason Pre-MS Program in Computer Science have completed 90 credit hours toward their UMW undergraduate degrees in computer science with a cumulative GPA \geq 3.30 in their major. In addition, admission requires completion of Calculus II and Discrete Math.

Getting started:

Students begin the application process through the UMW Assistant Dean of Arts and Sciences. Students are encouraged to meet with the Assistant Dean at the start of their junior year to plan their UMW curriculum for admission to the Pre-MS Program.

CEC/Mason courses:

The following UMW-CEC/Mason Pre-MS Program courses are eligible for undergraduate credit at UMW and for subsequent credit toward the CEC/Mason MS in Computer Science.

- CS 540 – Language Processors (3 credit hours)
 - Required UMW prerequisite: (CPSC 284 or MATH 201), CPSC 305, CPSC 326, and CPSC 340 (grades of B or better)
- CS 550 – Database Systems (3 credit hours)
 - Required UMW prerequisite: CPSC 326 and CPSC 340 (grades of B or better)
- CS 555 – Computer Communications and Networking (3 credit hours)
 - Required UMW prerequisite: CPSC 305, CPSC 340, and STAT 381 (grades of B or better)
- CS 571 – Operating Systems (3 credit hours)
 - Required UMW prerequisite: CPSC 305 and CPSC 340 (grades of B or better)

(continued on reverse)

CEC/Mason courses *(continued from reverse):*

- CS 580 – Introduction to Artificial Intelligence (3 credit hours)
 - Required UMW prerequisite: CPSC 326 and CPSC 340 (grades of B or better)
- CS 583 – Analysis of Algorithms (3 credit hours)
 - Required UMW prerequisite: (CPSC 284 or MATH 201), CPSC 326, and CPSC 340 (grades of B or better)
- CS 584 – Theory and Applications of Data Mining (3 credit hours)
 - Required UMW prerequisite: CPSC 340 and STAT 381 (grades of B or better)
- ISA 562 – Information Security Theory and Practice (3 credit hours)
 - Required UMW prerequisite: (CPSC 284 or MATH 201), CPSC 305, and CPSC 340 (grades of B or better)
- SWE 637 – Software Testing (3 credit hours)
 - Recommended UMW prerequisite: CPSC 430

Typically, graduate courses are offered with a start time of either 4:30pm or 7:20 pm

For CEC graduate programs tuition and fees, visit: <https://studentaccounts.gmu.edu/tuition-fees/>