MASTER OF COMPUTER SCIENCE (MCS) DEGREE, ONLINE PROGRAM

Program Learning Outcomes for the MCS Degree

Upon completing the MCS degree, students will be able to:

1. Solve advanced Computer Science problems. Students will acquire and apply a graduate-level understanding of material in sub-areas of Computer Science.
2. Design and implement complex software systems. Students will demonstrate skill in their design and implementation and function effectively in teams.
3. Communicate effectively to a client and user.

Requirements for the MCS Degree, Online Program

The MCS degree is a non-thesis master's degree. For general university requirements, please see Non-Thesis Master's Degrees (https://ga.rice.edu/graduate-students/academic-policies-procedures/regulations-procedures-non-thesis-masters-degrees/). For additional requirements, regulations, and procedures for all graduate programs, please see All Graduate Students (https://ga.rice.edu/graduate-students/academic-policies-procedures/regulations-procedures-all-degrees/).

Students pursuing the MCS degree must complete:

- A minimum of 30 credit hours to satisfy degree requirements.
- A minimum of 30 credit hours of graduate-level study (coursework at the 500-level or above).
- A minimum of 24 credit hours must be taken at Rice University.
- A minimum overall GPA of 2.67 or higher in all Rice coursework.
- A minimum GPA of 2.67 or higher in all Rice coursework that satisfies requirements for the non-thesis master's degree.

Students in the MCS degree program are expected to pay full tuition and all fees. No financial aid is available from the university or the department for MCS students. The MCS degree is a terminal degree for students intending to pursue a career in the computer industry.

The courses listed below satisfy the requirements for this degree program. In certain instances, courses not on this official list may be substituted upon approval of the program's academic advisor, or where applicable, the department or program's Director of Graduate Studies. Course substitutions must be formally applied and entered into Degree Works by the department or program's Official Certifier (https://registrar.rice.edu/facstaff/degreeworks/officialcertifier/). Additionally, these must be approved by the Office of Graduate and Postdoctoral Studies. Students and their academic advisors should identify and clearly document the courses to be taken.

### Summary

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td></td>
<td>Total Credit Hours Required for the MCS Degree, Online Program</td>
<td>30</td>
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### Degree Requirements

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<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td></td>
<td>Core Requirements</td>
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<tr>
<td>COMP 621</td>
<td>SYSTEMS SOFTWARE</td>
<td>3</td>
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<tr>
<td>COMP 625</td>
<td>COMPUTER ARCHITECTURE</td>
<td>3</td>
</tr>
<tr>
<td>COMP 628</td>
<td>NETWORKS AND SECURITY</td>
<td>3</td>
</tr>
<tr>
<td>COMP 630</td>
<td>DATABASES</td>
<td>3</td>
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<td>COMP 642</td>
<td>MACHINE LEARNING</td>
<td>3</td>
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<tr>
<td>COMP 643</td>
<td>BIG DATA</td>
<td>3</td>
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<tr>
<td>COMP 665</td>
<td>DATA VISUALIZATION</td>
<td>3</td>
</tr>
<tr>
<td>COMP 610</td>
<td>SOFTWARE CONSTRUCTION</td>
<td>3</td>
</tr>
<tr>
<td>COMP 613</td>
<td>PROGRAMMING LANGUAGES AND DESIGN</td>
<td>3</td>
</tr>
<tr>
<td>COMP 682</td>
<td>PRINCIPLES OF ALGORITHMS AND SOFTWARE AREA</td>
<td>3</td>
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### Footnotes and Additional Information

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1. Computer Architecture (COMP 625), Databases (COMP 630), Programming Languages and Design (COMP 613), and Principles of Algorithms and Software Area (COMP 682) are prerequisites to other required courses and must be taken first.

Policies for the MCS Degree, Online Program

Department of Computer Science Graduate Program Handbook

The General Announcements (GA) is the official Rice curriculum. As an additional resource for students, the department of Computer Science publishes a graduate program handbook, which can be found here: https://gradhandbooks.rice.edu/2019_20/Computer_Science_Graduate_Handbook.pdf

Admission

The GRE test is highly recommended for all applicants, however it may be waived, upon discretion of the department's Admission Committee, if an applicant has relevant industrial experience.

Financial Aid

No financial aid is available from Rice University or the Computer Science Department for students in the MCS degree program.

Transfer Credit

For Rice University’s policy regarding transfer credit, see Transfer Credit (https://ga.rice.edu/graduate-students/academic-policies-procedures/regulations-procedures-all-degrees/#transfer). Some departments
and programs have additional restrictions on transfer credit. Students are encouraged to meet with their academic program's advisor when considering transfer credit possibilities.

**Departmental Transfer Credit Guidelines**

Students pursuing the MCS degree should be aware of the following departmental transfer credit guidelines:

- No more than 6 credit hours of credit from another U.S. or international universities of similar standing at Rice may apply towards the degree. Transferred courses must be comparable in content and depth to the corresponding course at Rice, and must not have counted toward another degree.
- Request for transfer credit will be considered by the Computer Science Graduate Committee Chair, and the instructor of the equivalent Rice course.

**Additional Information**

For additional helpful information, please refer to the Graduate Study in Computer Science web page at [https://www.cs.rice.edu/academics/graduate-studies/](https://www.cs.rice.edu/academics/graduate-studies/) or contact the department at gradapp@rice.edu.

**Opportunities for the MCS Degree, Online Program**

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