The advanced multi-disciplinary degree program in Computational Science and Engineering addresses the current need for sophisticated skills in data and computation in both engineering and the sciences. Such skills require an understanding of tools, techniques, and algorithmic capabilities in a range of subjects including simulation, modeling, analytics, parallelization, visualization, networking, and programming. An awareness of a variety of new algorithms and analytic techniques is essential to maximizing the power of the new data and computational tools.

The Master of Computational Science and Engineering (MCSE) professional master’s degree is for individuals interested in practicing within the field of data and computation. Computational Science and Engineering does not currently offer an academic program at the undergraduate level.

**Master's Program**

- Master of Computational Science and Engineering (MCSE) Degree

**Director**

Matthias Heinkenschloss, *Computational and Applied Mathematics*

**Advisory Committee**

John Dobelman, *Statistics*

Matthias Heinkenschloss, *Computational and Applied Mathematics*

Mack Joyner, *Computer Science*

Michael T. Orchard, *Electrical and Computer Engineering*

For Rice University degree-granting programs:

To view the list of official course offerings, please see Rice’s Course Catalog ([https://courses.rice.edu/admweb/ISWKSCAT.cat?p_action=cata](https://courses.rice.edu/admweb/ISWKSCAT.cat?p_action=cata))

To view the most recent semester's course schedule, please see Rice's Course Schedule ([https://courses.rice.edu/admweb/ISWKSCAT.cat](https://courses.rice.edu/admweb/ISWKSCAT.cat))

**Description and Code Legend**

*Note: Internally, the university uses the following descriptions, codes, and abbreviations for this academic program. The following is a quick reference:*

**Course Catalog/Schedule**

- Course offerings/subject codes: Courses from various subjects can be applied towards this program

**Department (or Program) Description and Code**

- MCSE students are admitted to one of the following four home departments:
  - Computational and Applied Mathematics: CAAM
  - Computer Science: COMP
  - Electrical and Computer Engineering: ELEC
  - Statistics: STAT

**Graduate Degree Description and Code**

- Master of Computational Science and Engineering degree: MCSE

**Graduate Degree Program Description and Code**

- Degree Program in Computational Science and Engineering: CSCE

**CIP Code and Description**

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<th>CIP Code</th>
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Classification of Instructional Programs (CIP) 2020 Codes and Descriptions from the National Center for Education Statistics: [https://nces.ed.gov/ipeds/cipcode/](https://nces.ed.gov/ipeds/cipcode/)