COMPUTATIONAL SCIENCE AND ENGINEERING

Contact Information

Computational Science and Engineering
https://engrprofmasters.rice.edu/programs (https://engrprofmasters.rice.edu/programs/)

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The MCSE degree is an interdisciplinary non-thesis degree, jointly offered by the departments of Computational Applied Mathematics and Operations Research (CMOR) and Statistics (STAT), which includes core courses from Computational and Applied Mathematics, Statistics, Computer Science, and additional electives, and allows students to tailor their program of study to application areas with computational science and engineering (CSE) focus.

CSE is an exciting and evolving field that integrates computational and applied mathematics, statistics, computer science and disciplines of science and engineering to develop computational tools for computational and data intensive applications. The MCSE degree in the School of Engineering is a non-thesis degree program designed to provide training and expertise in computational science and engineering and in data engineering and analytics. The MCSE degree program is intended for students interested in technical and managerial positions such as computational scientist, computational engineering, data engineering, and data analyst. The program offers students opportunities to specialize in areas such as scientific computing, high-performance computing, data analytics, data engineering, data science, machine learning.

When applying to the interdisciplinary MCSE degree students must select Computational Applied Mathematics and Operations Research (CMOR) or Statistics (STAT) as their desired area of specialization (also referred to as home department). MCSE students are admitted to the home department corresponding to the area of specialization selected in their application and this choice determines some of the core requirements for the MCSE degree.

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 (https://ga.rice.edu/programs-study/departments-programs/engineering/computational-science-engineering/computational-science-engineering-mcse/)

Director

Matthias Heinkenschloss, *Computational Applied Mathematics and Operations Research*

Advisory Committee

Rudy Guerra, *Statistics*

Matthias Heinkenschloss, *Computational and Applied Mathematics and Operations Research*

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/!SWKSCAT.cat?p_action=cata)
To view the most recent semester's course schedule, please see Rice's Course Schedule (https://courses.rice.edu/admweb/!SWKSCAT.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 two areas of specialization/home departments:
  - Computational Applied Mathematics and Operations Research: CMOR
  - 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 [1]

- **CSCE** Major/Program: CIP Code/Title: *30.3001 - Computational Science*

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