DOCTOR OF PHILOSOPHY (PHD) DEGREE IN THE FIELD OF COMPUTATIONAL APPLIED MATHEMATICS AND OPERATIONS RESEARCH

Program Learning Outcomes for the PhD Degree in the field of Computational Applied Mathematics and Operations Research

Upon completing the PhD degree in the field of Computational Applied Mathematics and Operations Research, students will be able to:

1. Demonstrate a solid foundation in graduate-level computational and applied mathematics, across multiple sub-fields.
2. Propose and conduct original research in the field of computational and applied mathematics.
3. Communicate computational and mathematical results and their consequences professionally and effectively in both written and oral formats.

Requirements for the MA and PhD Degrees in Computational Applied Mathematics and Operations Research

MA Degree Program

The MA degree is a thesis master's degree. For general university requirements, please see Thesis Master's Degrees (https://ga.rice.edu/graduate-students/academic-policies-procedures/regulations-procedures-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/). Although students are not normally admitted to study for an MA, graduate students may earn the MA along the way to the PhD.

The requirements listed in the General Announcements (GA) satisfy the minimum requirements for this degree program. In certain instances, courses (or requirements) not officially listed here 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 or any exceptions to the stated official curricular requirements must be approved by the Office of Graduate and Postdoctoral Studies (https://graduate.rice.edu/). Students and their academic advisors should identify and clearly document the courses to be taken.

Summary

Code	Title	Credit Hours
Total Credit Hours Required for the MA Degree in the field of Computational Applied Mathematics and Operations Research		Minimum of 30

For general university requirements, please see Doctoral Degrees (https://ga.rice.edu/graduate-students/academic-policies-procedures/regulations-procedures-doctoral-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 PhD degree in the field of Computational Applied Mathematics and Operations Research must:

- Complete a course of study approved by the department to establish a broad foundation in applied mathematics.
- Perform satisfactorily on qualifying examinations and reviews.
- Produce an original thesis acceptable to the department.
- Perform satisfactorily on a final public oral examination on the thesis.

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Summary

Code	Title	Credit Hours
Total Credit Hours Required for the PhD Degree in the field of Computational Applied Mathematics and Operations Research		90

Policies for the PhD Degree in the field of Computational Applied Mathematics and Operations Research

Department of Computational Applied Mathematics and Operations Research Graduate Program Handbook

The General Announcements (GA) is the official Rice curriculum. As an additional resource for students, the department of Computational Applied Mathematics and Operations Research publishes a graduate program handbook, which can be found here: https://gradhandbooks.rice.edu/2026_27/Computational_Applied_Mathematics_Operations_Research_Graduate_Handbook.p

Admission

Admission to graduate study in computational applied mathematics and operations research is open to qualified students holding bachelor's or master's degrees (or their equivalent) in engineering; mathematics; or the physical, biological, mathematical, or behavioral sciences. Department faculty evaluate the previous academic record and credentials of each applicant individually. For general information and university

requirements, see Graduate Degrees (https://ga.rice.edu/graduate-students/academic-opportunities/degrees/) and Admission to Graduate Study (https://ga.rice.edu/graduate-students/academic-policies-procedures/admission/).

Applicants should be aware that it normally takes two years to obtain a master's degree and an additional two to four years for the doctoral degree.

Financial Assistance

Graduate fellowships, research assistantships, and graduate scholarships are available and are awarded on the basis of merit to qualified students. Current practice in the department is for most doctoral students in good academic standing to receive some financial aid.

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. Requests for transfer credit must be approved for Rice equivalency by the appropriate academic department offering the Rice equivalent course (corresponding to the subject code of the course content) and by the Office of Graduate and Postdoctoral Studies (GPS). Students are encouraged to meet with their academic program's advisor when considering transfer credit possibilities.

Additional Information

For additional information, please see the Computational Applied Mathematics and Operations Research website: https://cmor.rice.edu/.

Opportunities for the PhD Degree in the field of Computational Applied Mathematics and Operations Research

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