

# DOCTOR OF PHILOSOPHY (PHD) DEGREE IN THE FIELD OF COMPUTER SCIENCE

## Program Learning Outcomes for the MS and PhD Degrees in the field of Computer Science

Upon completing the MS and PhD degrees in the field of Computer Science, students will be able to:

1. Acquire a solid foundation in Computer Science at graduate level. Students will demonstrate a graduate-level understanding of material across a variety of sub-disciplines, be able to synthesize problem solutions by combining knowledge from different sources, and demonstrate a deep knowledge of sub-area in which they will pursue their thesis.
2. Conduct an independent research program. Students will identify and pose a research problem, place that problem in context within the field's established literature, and conduct an independent investigation that leads to credible scientific results.
3. Demonstrate professional skills in both oral and written communication. Students will write well-organized, coherent technical prose, deliver a professional presentation on par with a solid conference presentation, demonstrate the ability to describe scientific issues and techniques in writing and in presentation, and be able to answer unanticipated technical questions in a public setting.

## Requirements for the MS and PhD Degrees in the field of Computer Science

### MS Degree Program

The MS degree is a thesis master's degree. For general university requirements, please see [Thesis Master's Degrees \(https://ga.rice.edu/graduate-students/academic-policies-procedures/regulations-procedures-thesis-masters-degrees/\)](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 \(https://ga.rice.edu/graduate-students/academic-policies-procedures/regulations-procedures-all-degrees/\)](https://ga.rice.edu/graduate-students/academic-policies-procedures/regulations-procedures-all-degrees/). Students who successfully meet the first three requirements listed in the requirements for the PhD degree below are awarded the Master of Science degree.

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 \(https://graduate.rice.edu/\)](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 MS Degree in the field of Computer Science		30

## Requirements for the PhD Degree in the field of Computer Science

### PhD Degree Program

For general university requirements, please see [Doctoral Degrees \(https://ga.rice.edu/graduate-students/academic-policies-procedures/regulations-procedures-doctoral-degrees/\)](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 \(https://ga.rice.edu/graduate-students/academic-policies-procedures/regulations-procedures-all-degrees/\)](https://ga.rice.edu/graduate-students/academic-policies-procedures/regulations-procedures-all-degrees/). Students pursuing the PhD degree in the field of Computer Science must:

- Meet departmental course requirements as described in the Computer Science Department's graduate student handbook available under *Graduate Programs > Graduate Handbook* on the [department website \(https://www.cs.rice.edu/academics/graduate-programs/phd-program/\)](https://www.cs.rice.edu/academics/graduate-programs/phd-program/).
- Complete a COMP 590 project by the end of the third semester.
- Pass a qualifying examination in an area of specialization within seven semesters after entering the PhD program.
- Conduct original research, submit an acceptable PhD thesis proposal, and successfully defend the thesis proposal.
- Submit an acceptable PhD thesis that reports research results and pass a final oral defense.

The PhD degree is for students planning to pursue a career in computer science research and education. The doctoral program normally requires four to six years of study.

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## Summary

Code	Title	Credit Hours
Total Credit Hours Required for the PhD Degree in the field of Computer Science		90

## Policies for the PhD Degree in the field of Computer Science

### 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/2024\\_25/Computer\\_Science\\_Graduate\\_Handbook.pdf](https://gradhandbooks.rice.edu/2024_25/Computer_Science_Graduate_Handbook.pdf).

## Financial Assistance

Fellowships and research assistantships are available to students in the PhD program. Both provide a monthly stipend for the academic year and cover all tuition expenses. More substantial monthly stipends may be available during the summer for students working on departmental research projects. In all cases, continued support is contingent on satisfactory progress in the program. PhD students also are expected to assist in the teaching and administration of undergraduate and graduate courses.

## 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) (<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 *Graduate Programs* tab of the [Computer Science website](https://www.cs.rice.edu/academics/graduate-programs/) (<https://www.cs.rice.edu/academics/graduate-programs/>) or contact the department at [gradapp@rice.edu](mailto:gradapp@rice.edu).

# Opportunities for the PhD Degree in the field of Computer Science

## Additional Information

For additional information, please see the *Graduate Programs* tab of the [Computer Science website](https://www.cs.rice.edu/academics/graduate-programs/) (<https://www.cs.rice.edu/academics/graduate-programs/>) or contact the department at [gradapp@rice.edu](mailto:gradapp@rice.edu).