### Graduate Courses in Computer Science

- 5191 Seminar in Applied Computing
- 5300 Operating Systems*
- 5310 Introduction to Scientific Computing*
- 5315 Information Security
- 5320 Compiler Construction*
- 5325 Concurrent Programming
- 5330 Theory of Computation
- 5353 Multi-Media Computing
- 5365 Web Technology
- 5370 Data Mining
- 5385 Artificial Intelligence
- 5X97 Special Topics
- 6300 Distributed Operating Systems I*
- 6305 Distributed Operating Systems II*
- 6330 Topics in Algorithms*
- 6335 Topics in Networking
- 6350 Topics in Computer Graphics
- 6355 Expert Systems
- 6360 Advanced Theory of Computation*
- 6370 Topics in Database Systems
- 6380 Advanced Computer Architecture*
- 6381 Topics in Object-Oriented Software Development*
- 6385 Topics in Artificial Intelligence
- 6390 Topics in Software Engineering*
- 6395 Independent Studies
- 6397 Special Topics in Applied Computing
- 6X99 Master's Project/Thesis

*At least 4 of these classes must be taken to meet the degree requirements. Remaining hours may be chosen from any other classes.

### Faculty and Staff

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Thank you for your interest in the Master of Science in Applied Computing at the University of Central Arkansas. Please feel free to contact us with any questions you may have or visit our website at:  
[www.cs.uca.edu](http://www.cs.uca.edu)

Or the University website at:  
[www.uca.edu](http://www.uca.edu)

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**Graduate Degree Program**  
2011-2013
Master of Science in Applied Computing

Objectives
The Master of Science in Applied Computing is designed to provide intensive preparation in the concepts and techniques related to applications of computing systems. The program requires the student to take a wide range of courses to meet the breadth requirement, while simultaneously allowing for emphases in desired application areas of specialization. Upon completing this degree program, a student should have the ability and skills for immediate employment in positions related to applied computing and also be well prepared for advanced studies in doctoral degrees at leading institutions. Detailed program objectives and educational outcomes can be found at the department homepage.

Degree Requirements
This degree requires a minimum of 34 credit hours with a cumulative grade-point average of at least 3.0. A minimum of 15 credit hours in the 6000 level courses is required.

The thesis option requires up to six credit hours of thesis credit, plus a thesis defense. A thesis usually consists of original work or a detailed survey of a research topic.

The non-thesis option requires three credit hours of an application project. A project usually consists of the production and documentation of code to perform a particular task. The student must also complete a written report describing the objectives of the work, the previous state of the art, and the results of the project.

With either option, a public presentation will be required of the student.

Admission Requirements
The candidate must meet the Graduate School general admission requirements for graduate study. Requirements and applications can be found at:

www.uca.edu/divisions/academic/graduate

In addition, a candidate should have:

♦ An undergraduate degree with a GPA of 3.0 or higher on a 4.0 scale for the last 60 credit hours.
♦ A good background in mainstream computer science including programming experience with high-level languages, background in computer system, data structures, algorithms, and related mathematics background.
♦ An admission packet which includes:
  - A complete form of Application for Admission to Graduate Study,
  - Official transcript of all undergraduate and graduate work,
  - General Test of the GRE
  - A resume and three names of references

For international applicants whose primary language is not English, the TOEFL is required. Online application found at uca.edu/international admissions

The requirements for the degree must be completed within six calendar years of the date of enrollment.

Conditional Admission
Candidates without an undergraduate degree in computer science, or a closely related field, may obtain conditional admission. Students with conditional admission are required to take leveling courses determined by the Computer Science Department. No leveling course may be applied toward the degree requirements.

Graduate Assistantship
Graduate assistantships are available to students with full admission status. The application for graduate assistantship is available online too. Considerations of awarding graduate assistantship are based not only on applicant’s credentials but also on available funds and the number of applicants. Normally, graduate assistantship support is limited to two years for students in this program.

Advisement
When a student is admitted to the program, the Chairperson of the Department of Computer Science will review the student’s records, recommend an initial program of study, and serve as the initial advisor. Before completing 18 credit hours or the first year of graduate work, a student should select a member of the graduate faculty to become principal advisor with the approval of department chairperson. The advisor and the student will then work together to establish a formal Petition for Candidacy Program of Study.

Expectation
Graduate students are expected to participate in the professional activities of the department. This includes participating in seminars, outreaching activities, and colloquia.