

# Computer Science and Software

The Department of Computer Science and Software Engineering offers the doctorate (Ph.D.) degree, a master of science (M.S.) and a master of software engineering (M.Sw.E.). All degrees are designated with the major of Computer Science and Software Engineering. An Information Assurance Option is also available for students studying for the Ph.D. or the M.Sw.E. degree online and on campus.

To enter the M.Sw.E. program students must hold a bachelor's degree or its equivalent from an institution of recognized standing. The student also must have the prerequisite undergraduate experience in areas of computer science and/or software engineering. All applications are reviewed by the Graduate Admissions Committee. In general, only those students who have at least a 3.0/4.0 undergraduate grade point average at the time of graduation will be considered for the graduate program. Priority will be given to applicants who score greater than 1000 on the General Test of the Graduate Record Examination (GRE). The new GRE target is a combined score greater than 300.

However, the committee does not automatically discard applicants that fail to meet these requirements. It takes a "whole person" approach to evaluating applications to our graduate program. Instead of just looking at a single test score (or grade point average), the committee takes into account all the information that the applicant provides. If one measure is below the minimum, it will expect other items to be commensurately high enough to balance it.

## Requirements for M.Sw.E. Degree

- ▶ All applicants must submit GRE scores for the General Test and Test of Spoken English (TSE) scores for international applicants
- ▶ There is no residency, foreign language or minor requirements for this degree
- ▶ 33 semester credit hours of graduate (6000 and 7000 level) course work with concentration in software engineering, networks operating systems or human/computer interface, including three credit hours for the software engineering design project

## Special Requirements: Students with degrees in fields other than computer science and software engineering

Although most of our graduate students have a degree in computer science, software engineering, or computer engineering, a number of them have formal training in other disciplines. We encourage strong applicants from many backgrounds, provided they can show potential to complete the graduate degree requirements in Computer Science and Software Engineering.

For those applicants without or with little formal training and/or experience in Computer Science and Software Engineering, the following prerequisite areas are considered essential to succeed in our graduate programs

1. Fundamentals of Computer Science, including programming in C, C++, or Java, and data structures
2. Mathematical Foundations of Computer Science, including discrete structures, algorithms design and analysis
3. Computer Organization and System Software, including assembly language and operating systems

These courses are not available through the distance education program.

## Transfer from Other Institutions

Upon recommendation of the student's advisory committee, a maximum of six semester hours of related graduate work that has been satisfactorily completed (B or better) at other approved graduate schools may be applied toward the master's degree course requirements. Transfer credit for the Ph.D. is determined by the student's advisory committee.

## Course List

COMP 6126 Database System I	3 hours
COMP 6206 Theoretical Computer Science	3 hours
COMP 6326 Design and Analysis of Computer Network	3 hours
COMP 6336 Parallel and Distributed Computing	3 hours
COMP 6406 Fundamentals of Computer Graphics	3 hours
COMP 6606 Artificial Intelligence	3 hours
COMP 6616 Artificial Intelligence Programming	3 hours
COMP 6706 Software Process	3 hours
COMP 6716 Software Quality Assurance	3 hours
COMP 7126 Database Systems II	3 hours
COMP 7226 Programming Language Design and Specifications	3 hours
COMP 7326 Advanced Computer Networks	3 hours
COMP 7346 High Speed Networks	3 hours
COMP 7406 Advanced Computer Graphics	3 hours
COMP 7506 Advanced Topics In Operating Systems	3 hours
COMP 7606 Computational Intelligence	3 hours
COMP 7616 Computational Cognition	3 hours
COMP 7706 Software Architecture	3 hours
COMP 7716 Software Environments	3 hours
COMP 7726 Software Re-Engineering	3 hours
COMP 7736 Formal Methods for Software	3 hours
COMP 7956 Introduction to Graduate Study in Computer Science and Software	3 hours
COMP 7976 Special Topics	1-3 hours
COMP 7986 Design Project	1-15 hours
COMP 8326 Research Topics in Computer Networks	3 hours

## Application Procedures

- ▶ Fill out the online graduate application at [app.applyyourself.com/?id=auburn-g](http://app.applyyourself.com/?id=auburn-g) (you will be required to create an account)
- ▶ Provide TSE scores
- ▶ For more information visit [grad.auburn.edu](http://grad.auburn.edu)

[www.eng.auburn.edu/comp](http://www.eng.auburn.edu/comp)