College of Engineering and Computing Course Catalogs

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1994

Doctoral programs Computer Info Systems, Info Science, Info Sytems, Computer Science, Computing Technology in Education 1994

Nova Southeastern University

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DOCTORAL PROGRAMS

COMPUTER INFORMATION SYSTEMS

INFORMATION SCIENCE

INFORMATION SYSTEMS

COMPUTER SCIENCE

COMPUTING TECHNOLOGY IN EDUCATION

Ph.D. IN COMPUTER INFORMATION SYSTEMS

This program produces technology-oriented professionals with knowledge in the major areas of computer information systems and with the ability to develop creative solutions to substantive real-world problems. The format provides professionals the opportunity to pursue the Ph.D. while enhancing their current careers.

The program is especially well-suited to professionals who are involved with research, design, implementation, management, evaluation, utilization, and teaching related to computer information systems. Courses, projects, and research activities serve as an expanded learning environment.

The program requires 68 semester hours of which 48 are required courses and projects, and 20 are for the dissertation.

Program Study Areas

- Structure of Computer Information Systems
- Information Systems Analysis
- Decision Support Systems
- Software Engineering
- Human-Computer Interaction
- Database Management Systems
- Data Communications and Computer Networking
- Artificial Intelligence and Expert Systems

Format For Computer Information Systems

(Also see *Program Formats (General)*.)

Each student must complete eight core courses, six projects, and a dissertation. During the first three years of the program, the student completes six core courses and six projects. Each semester, one three-credit core course and its related four-credit project course are taken concurrently. Each year, the student attends four cluster meetings at the University. During the fourth year, students complete two additional core courses and register for the dissertation.

Ph.D. PROGRAM IN INFORMATION SCIENCE

Information organization and retrieval have evolved into issues of enormous importance in light of the continued rapid developments in computing technology. This program produces technology-oriented professionals with knowledge and abilities to develop creative solutions to substantive real-world problems. Formats provide working professionals the opportunity to pursue the Ph.D. without interrupting their careers.

The program is intended for professionals employed in a library or information center environment. It requires 64 semester hours of which 40 are required courses and projects, and 24 are for the dissertation.

Program Study Areas

- Applied Database Management Systems
- Computer Networks
- Human-Computer Interaction
- Management of Computing Resources
- Telecommunications
- Structure of Library Information Systems
- Technology-Based Cataloging
- Multimedia and Emerging Technologies

Format For Information Science

(Also see *Program Formats (General)*.)

Each student must complete eight core courses, four projects, and a dissertation. During the first two years of the program, the student completes the eight core courses and four projects by registering for two three-credit core courses and one four-credit project course each semester. Each year, the student attends either four cluster meetings or two institutes. During the third year, students register for the dissertation.

Ph.D. IN INFORMATION SYSTEMS

This program produces technology-oriented professionals with knowledge and abilities to develop creative solutions to substantive real-world problems. Formats provide professionals the opportunity to pursue the Ph.D. without career interruptions.

The program is intended for professionals who work in areas such as software engineering, systems analysis and design, information system planning, project management, and administration.

The program requires 64 semester hours of which 40 are required courses and projects, and 24 are for the dissertation.

Program Study Areas

- Applied Database Management Systems
- Computer Networks and Telecommunications
- Decision Support Systems
- Human-Computer Interaction
- Information Systems Structure
- Information Systems Analysis
- System Design, Test, and Evaluation
- Management of Computing Resources

Format For Information Systems

(Also see *Program Formats (General)*.)

Each student must complete eight core courses, four projects, and a dissertation. During the first two years of the program, the student completes the eight core courses and four projects by registering for two three-credit core courses and one four-credit project course each semester. Each year, the student attends either four cluster meetings or two institutes. During the third year, students register for the dissertation–the most important requirement for the Ph.D.

Ph.D. IN COMPUTER SCIENCE

This program produces research-oriented professionals with knowledge in the major areas of computer science and ability to develop creative solutions to substantive real-world problems who wish to pursue the Ph.D. while continuing to work in their current positions. The program is especially well-suited to professionals who are involved with one of the many areas of computer science who wish to pursue the Ph.D. Courses, projects, and research activities serve as an expanded learning environment. The program requires 68 semester hours of which 48 are required courses and projects, and 20 are for the dissertation.

Program Study Areas

- Theory and Principles of Programming
- Software Engineering
- Modeling and Simulation
- Database Management Systems
- Data Communications and Computer Networking
- Artificial Intelligence
- Compilers, Language Theory, and Automata
- Operating Systems

Format For Computer Science

(Also see Program Formats (General).)
Each student must complete eight core courses, six projects, and a dissertation. During the first three years of the program, the student completes six core courses and six projects. Each semester, one three-credit core course and its related four-credit project course are taken concurrently. Each year, the student attends four cluster meetings at the University.

During the fourth year, students complete two additional core courses and register for the dissertation.

**PLEASE SEND ME A FULL BROCHURE ON THE
FOLLOWING DOCTORAL PROGRAM.**

☐ COMPUTER INFORMATION
SYSTEMS

☐ INFORMATION SCIENCE

☐ INFORMATION SYSTEMS

☐ COMPUTER SCIENCE

☐ COMPUTING TECHOLOGY IN
EDUCATION

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or (305) 475-7352.

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Nova Southeastern's Center for Computer and Information Sciences (CCIS) has become a major force in educational innovation. It is distinguished by its ability to offer both traditional and nontraditional choices in educational programs and formats that enable the professional to pursue an advanced degree without career interruption.

Consistent with Nova Southeastern's philosophy and mission, programs of the Center are designed to provide a high-quality education that keeps pace with rapidly changing professional and academic needs.

Today, CCIS faculty and staff serve the educational needs of undergraduate and graduate students throughout the United States via a range of programs and specializations. Degrees offered by the Center include the B.S., M.S., Ph.D., and Ed.D.

ACCREDITATION

Nova Southeastern University is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award bachelor's, master's, educational specialist, and doctoral degrees.

Because Nova Southeastern has undergone scrutiny to meet regulations in some 30 states, it is among the most evaluated universities in the country.

PROGRAM FORMATS (General)

(Specifics provided under each program description.) Doctoral programs operate on six-month semesters and involve core courses, projects and a dissertation. Each course and project requires six months to complete.

Programs combine a carefully balanced mixture of traditional and nontraditional instruction. Depending on the program and options available, students sit for instruction at quarterly cluster meetings or twice-yearly institutes at the university. Cluster meetings are held on extended weekends (Friday, Saturday, and half-day Sunday). Institutes are week-long meetings, usually held in January and July. Clusters and institutes bring together students and faculty for courses, discussions, and dissertation/MARP counseling.

Computer-based activities include e-mail communications, teleconferences, Nova's electronic library, and Nova's information retrieval service. The Internet is also used extensively in support of student research and computer-mediated communication with experts and fellow students throughout the world.

Students may begin their programs at the start of any six-month semester. Applicants must have a master's degree or be admitted into a combined master's/doctoral program.

Ph.D. IN COMPUTING TECHNOLOGY IN EDUCATION

This program is designed to meet the specific needs of working professionals in education and training. It has three areas of specialization, each leading to the Ph.D. or Ed.D. degree. *Computer education* is designed for educators and concentrates on the use of computers and other forms of advanced technology to improve cognition. The *computing systems in education* specialization is designed for educators and systems administrators. It focuses on computing systems that support the educational process. *Training and learning* addresses the role of computing and other forms of technology in training processes in the commercial/industrial setting. (See catalog for specialization requirements.)

The program requires 64 semester hours of which 40 are required courses and projects.

Program Study Areas

- Application of Authoring Systems to Curriculum Design
- Computer Application of Learning Theory
- Computer-based Research and Statistics
- Human-Computer Interaction
- Multimedia and Emerging Technologies
- Courseware and Educational Programming Languages
- Telecommunications and Computer Networks
- Artificial Intelligence and Expert Systems
- Management of Computing Resources
- Systems Analysis for Instructional Computing Systems
- Applied Database Management System
- Research and Statistics

Format For Computing Technology in Education

(Also see *Program Formats (General)*.)
Each student must complete eight core courses (seven for computer education), four projects, and a dissertation or major applied research project (MARP). During the first two years of the program, the student completes the core courses and four projects by registering for two 3-credit core courses and one 4-credit project course each semester. The student attends either four cluster meetings or two institutes annually. During the third year, students register for the dissertation or MARP.

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