

# OBJECTIVES OF SEIDENBERG PROGRAMS

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Consistent with the Pace tradition, the Seidenberg School seeks to integrate theory and practice in its programs and research. The design, development, analysis, application, and management of current computing systems comprise the broad spectrum over which the Seidenberg School creates, interprets, criticizes, and applies knowledge with strict attention to academic standards. Change characterizes information technology; of particular importance, therefore, is the development of competency in the foundation and methodologies of the discipline, in order to enable ongoing learning and effective response to change.

The Seidenberg School is dedicated to the service of people of all ages of every race and culture through educational programs that develop skills, enhance individual and community effectiveness, extend knowledge, and enhance critical understanding of the culture. The educational process is undertaken with concern for the development of personal, professional, and social responsibility.

The Seidenberg School offers undergraduate programs in Computer Science (BS and BA), Information Systems (BS), Information Technology (BS), and Professional Computer Studies (BS). Graduates of all programs are prepared for a variety of professional positions, including those in cybersecurity, software development, robotics, artificial intelligence, mobile app development, UX/IX, and a number of specialized positions that would depend upon the student's concentration and elective choices. In addition to these majors, the Seidenberg School offers minors in Computer Science, Information Technology, and Information Assurance for the Criminal Justice System.

The BS program in Computer Science is a professional program that is accredited by the Computing Accreditation Commission (CAC) of ABET. The curriculum is based upon programming languages, algorithms and data structures, computer organization and architecture, operating systems, the Internet computing, and theoretical foundations. It includes advanced work in various areas including software engineering, security, operating systems, compilers, artificial intelligence, graphics, mobile computing, web computing and data mining. Program requirements include the liberal arts core and other academic requirements that specifically apply to the Bachelor of Science degree.

The BS program provides excellent preparation for graduate study in computer science or for professional placement. The BA program in computer science shares the computer science core with the BS program and is structured in a way that allows more program diversity for the student who wishes to pursue a minor in information technology, Web media, information assurance for the criminal justice system, business or one of the arts and sciences.

The BS program in Information Systems is designed to provide the student with current technical skills and knowledge of those information systems concepts that remain constant in the face of technological change, as well as detailed awareness of a cohesive body of knowledge to prepare students to function effectively as an IS professional in the IS environment. The continual appearance of new and increasingly powerful software tools for applications development, as well as the availability of low-cost hardware, has created new organizational approaches to building computer information systems.

The Seidenberg School of Computer Science and Information Systems has responded to the growing market for competent information technology (IT) professionals by developing the BS in Information Technology. First offered in fall 2010, this rapidly growing program is characterized by flexibility, hands-on practical projects, and a real-world internship option. The program allows students to combine an area of personal interest with a solid foundation in IT in preparation for careers that are satisfying, financially rewarding and in demand.

The BS in Professional Computer Studies has been developed for those computer professionals with considerable on-the-job experience who would benefit from having a baccalaureate degree in computing and would most likely be interested in pursuing a master's degree in a computer-related field once the undergraduate requirements are completed. This degree program supplements the regular baccalaureate offerings in computer science, information systems, and information technology.

The BS in Professional Technology Studies is an online accelerated degree program designed to prepare students for successful professional careers in a global economy in the midst of rapid technological change. There are two concentrations from which to choose: Telecommunications and Computer Forensics. The Telecommunications concentration is primarily for individuals already working within the telecommunications industry. Computer Forensics is for those interested in preparing to enter this in-demand field. The BS program in professional technology studies is an innovative, online accelerated degree program for adults who have experience in the workplace and an AS or AA degree or the equivalent (64 credits).

All of the Seidenberg programs are supported by a broad range of state-of-the-art computer facilities. They are complemented by fully equipped PC and Mac laboratories. Academic Computing laboratories are located at several sites throughout the University. Peer consultants offer individual assistance to students using lab equipment and software.