

KING'S COLLEGE

COMPUTER SCIENCE

The need for skilled computer professionals will continue for the foreseeable future. At King's the computer science program offers a degree in computer science through the technology division. The computer field is changing at a very rapid rate, and computer professionals must continue to develop new skills to keep pace. At King's, we try to develop students who have learned how to learn on their own and are prepared to meet future challenges.

DEGREE OFFERED

Bachelor of Science (B.S.)

SPECIAL FEATURES

Computer science is based on a solid foundation of mathematics. Students take three math courses in the major. First-year computer science majors learn to program in the Java language while developing math skills in calculus, discrete math, and mathematical logic. As students move to upper level courses, they learn other languages including C# and Visual Basic, the fundamentals of data structures and algorithms, and explore the diverse subfields of computer science such as converged networking, network security, web programming, network operating systems, database management, software engineering.

Most juniors participate in an internship which enables them to gain valuable experience in the workplace. Some of the local companies which participants include Guard Insurance, Phillip Morris (Nabisco) and Blue Cross. All students complete their major with a group project in software engineering. The computer science program at King's emphasizes computer networking, hands-on computer networking lab featuring Cisco and 3COM routers, firewalls, and switches.

CAREER OPTIONS

King's has graduated over 90 students in the past

few years; about 20% of them are women.

Computer professionals include:

- Information technology specialists who set up and run computer and network systems.
- Computer and information systems analysts who manage databases and organize information.
- Computer scientists who develop algorithms to solve the problems involved in networking and write the programs to implement the solutions on the computer.
- Computer engineers who develop the hardware which is required to run the systems.

Computer scientists are problem solvers who apply their skills in analyzing problems in real situations and developing solutions by programming the computer.

Areas in which computer scientists work include:

Financial Planning.
Banking.
Data warehousing and mining
E-Commerce
Encryption and security
Artificial intelligence
Expert systems Robotics
Modeling and simulation
Scientific visualization

Medical diagnosis and treatment

Computer graphics
Computer-assisted design
Computer education.

OPPORTUNITIES FOR GRADUATE STUDIES

While some students have gone directly to graduate schools such as the University of Georgia, Michigan State, Rensselaer Polytech, and Binghamton University, most graduates seek employment upon graduation. Many students attend graduate school part time with the support of their employers. Some of the companies that employ King's graduates include Prudential Asset Management, Keane Inc., EDS, Sanchez Computer Associates, Phillip Morris, Solid Cactus, Blue Cross, and Hughes Defense Industries.

COMPATIBLE MAJORS/MINORS

English, business administration, education, mathematics, ~~Mass Communications~~, and psychology.

PROGRAM DIRECTOR

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CURRICULUM

COMPUTER SCIENCE (B.S.)

FIRST YEAR

Logic and Axiomatic (MATH 127)	Introduction to Computer Science Programming (CIS 115)
Analytic Geometry and Calculus I (MATH 129)	Analytic Geometry and Calculus II (MATH 130)
Visual BASIC I (CIS 116)	Visual BASIC II (CIS 117)

SECOND YEAR

IT Methods & Procedures (CS 206)	Data Structures (CS 232)
Discrete Mathematics (CS 235)	Web-based Info Sys(CIS 251)

THIRD YEAR

Data Communications I (CS 385)	Adv. Object Oriented (CS 301)
Internship (CS 499)	Database Management (CIS 356)
	Data Comm II (CIS 386)

FOURTH YEAR

Network Security (CS 411)	Software Engineering (CS 480)
Computer Science Electives (2)	Internship

Three of the following:

CS 345	Web Programming (3)
CIS 355	Geographic Information System (3)
CS 364	Operating Systems (3)
CS 375	Computer Graphics (3)
CS 491	Independent Study in Computer Science (3)
MATH 363	Mathematical Modeling (3)

The following electives are recommended for Computer Science majors:

CIS 244	Structured Programming: COBOL (3)
CORE 276	Principles of Electronics (3)
PHYS 111	General Physics I (4)
PHYS 112	General Physics II (4)