

ROWAN UNIVERSITY
Department of Computer Science

THE BACHELOR OF SCIENCE IN COMPUTER SCIENCE

For students matriculating September 2005 or later
(A total of 120 semester hours is required for this degree)

I. General Education - 46 s.h.

(Note: **s.h.** stands for semester hours or credits).

A. Artistic & Creative Experience - 3 s.h.

B. Communications - 9 s.h.

College Composition I and II (COMP01.111/1.112) are required.
Public Speaking (CMS06.202) is required.

C. History, Humanities, and Language - 6 s.h.

A course labeled as General Education Literature is required.

D. Social and Behavioral Sciences - 6 s.h.

One of the courses

INTR01.265 Computers and Society or

INTR01.266 Computers and Society (WI) is required

E. Science and Mathematics - 16 s.h.

Calculus I (MATH01.130) is required

A two-semester sequence and a lab science from the following list are required:

BIOL01.100-101 Biology I, II (4 s.h. each)

PHYS02.200-201 Physics with Calculus I, II (4 s.h. each)

CHEM06.100-101 Chemistry I, II (4 s.h. each)

F. Non-Program Electives – 6 s.h.

Courses must be selected from the Communications, Artistic/Creative Experience, History/Humanities/Language or Social/Behavioral Sciences banks of the general education guide.

II. Free Electives - 12 s.h.

NOTE: 1. One of the above courses *must* be labeled as Multicultural/Global Studies.

2. One of the above courses *must* be labeled as Writing Intensive.

Major Requirements

62 s.h.

A. Required Courses

50 s.h.

MATH03.160 Discrete Structures

MATH01.131 Calculus II

MATH01.210 Linear Algebra

STAT02.360 Probability & Statistics I

CS04.113 Introduction to Object-Oriented Programming

CS04.114 Object-Oriented Programming and Data Abstraction

CS04.222	Data Structures and Algorithms
CS06.205	Computer Organization
CS07.210	Foundations of Computer Science
CS07.321	Principles of Software Engineering
CS04.315	Programming Languages
CS06.310	Principles of Digital Computers
CS06.311	Digital Computer Laboratory
CS07.340	Design and Analysis of Algorithms
CS04.390	Operating Systems
CS04.400	Senior Project

B. Restricted Electives

12 s.h.

CS04.305	Web Programming
CS04.327	Power Java
CS04.380	Object Oriented Design
CS04.392	System Programming and Operating System Internals
CS04.394	Distributed Systems
CS04.401	Compiler Design
CS04.391	Concurrent Programming
CS04.394	Distributed Systems
CS04.430	Database Systems: Theory and Programming
CS06.410	Data Communications and Networking
CS06.416	TCP/IP and Internet Protocols and Technologies
CS06.412	Advanced Computer Architecture
CS06.415	Wireless Networks, Protocols and Applications
CS07.310	Robotics
CS07.322	Software Engineering Practicum
CS07.350	Computer Cryptography
CS07.360	Computer Graphics
CS01.395	Topics in Computer Science
CS07.370	Introduction to Information Visualization
CS07.380	Introduction to Computer Animation
CS07.422	Theory of Computing
CS07.450	Artificial Intelligence
CS07.460	Computer Vision
CS99.300	Computer Field Experience

NOTE: 1) A grade of C- or better is required for graduation in following courses: Calculus I, Discrete Structures, Computer Organization, and Data Structures, whether they are taken locally or transferred.

2) A 2.5 grade point average in the required and restricted elective courses together with College Composition I is required for graduation, whether they are taken locally or transferred.