

## COMPUTER SCIENCE

### Associate in Science

#### *Information Technology Option*

The program outlined here will prepare students for transfer to a four-year college to obtain a Bachelor of Arts degree in computer information systems. The curriculum follows the model provided by the Association of Computing Machinery in order to assure maximum transferability. Upon graduation, students can expect to transfer to a four-year college with junior status. The field of information technology is interdisciplinary, with applications to all aspects of the economy. Information technologists need a balance of software and hardware applications with concentration in specific courses. Effective problem solving is central to this degree; this curriculum provides the necessary foundation. The software development process (composing and coordinating components of a program) requires that students construct algorithms for problem solving with appropriate documentation. This curriculum has been designed to prepare the student to meet the future needs of integration, design, deployment and management of computing, resources and services. Computer science students have access to five computer labs utilizing contemporary operating systems, located in the Technology Building. The faculty recommends the following minimal criteria for prospective students in the Information Technology option:

1. High school diploma or equivalent,
2. Cumulative high school grade point average of C or above,
3. Ranked in top half of high school graduating class,
4. No developmental studies requirement

#### **FIRST SEMESTER**

- 3 s.h. Computer Programming I (CSIT 171)
  - 3 s.h. Introduction to Computer Organization (CSIT 140)
  - 4 s.h. Calculus I (MATH 265)
  - 3 s.h. English I (ENGL 151)
  - 3 s.h. Social Science Requirement
- 16 s.h.

#### **SECOND SEMESTER**

- 3 s.h. Computer Programming II (CSIT 172)
  - 3 s.h. Computer Science Elective (CSIT 115 or higher)
  - 4 s.h. Calculus II (MATH 266)
  - 3 s.h. English II (ENGL 152)
  - 3 s.h. Social Science Requirement
- 16 s.h.

#### **THIRD SEMESTER**

- 3 s.h. Data Structures and Algorithm Analysis (CSIT 271)
  - 3 s.h. Computer Science Elective (CSIT 115 or higher)
  - 4 s.h. Lab Science (BIOL 161, CHEM 181 or PHYS 271)
  - 3 s.h. Humanities/English Requirement
  - 3-4 s.h. Elective (to meet required 64 s.h.)
- 16-17 s.h.

#### **FOURTH SEMESTER**

- 3 s.h. Database Management (CSIT 213)
  - 3 s.h. Computer Science Elective (CSIT 115 or higher)
  - 4 s.h. Lab Science (BIOL 162, CHEM 182 or PHYS 272)
  - 3 s.h. Humanities/English Requirement
  - 2-3 s.h. Applied Modern Health (HEHP 110) or Contemporary Health (HEHP 225)
- 15-16 s.h.

#### **TOTAL CREDITS 64**