COMPUTER SCIENCE - A.S. Degree Program – Information Technology Option – Effective Catalog Year 2015-2016

The program outlined here will prepare students for transfer to a four-year college to obtain a Bachelor of Science degree in computer information systems. The curriculum follows the model provided by the Association of Computing Machinery and the Institute of Electrical and Electronics Engineers Computer Society 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. The department 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
CSIT 165 Programming I 4 cr.
ENGL 151 English I 3 cr.
Social Science Gen Ed Requirement 3 cr.
Elective (to meet required 64 cr.) 3 cr.
Humanities Gen Ed Requirement 3 cr.
16 cr.

SECOND SEMESTER
CSIT 166 Programming II 4 cr.
CSIT 176 Computer Organization & Architecture 3 cr.
MATH 265 Calculus I 4 cr.
ENGL 152 English II 3 cr.
Social Science Gen Ed Requirement 3 cr.
17 cr.

THIRD SEMESTER
CSIT 265 Data Structures and Algorithm Analysis 4 cr.
MATH 266 Calculus II 4 cr.
BIOL 161, CHEM 181 or PHYS 281 Lab Science Gen Ed Requirement 4 cr.
Humanities Gen Ed Requirement 3 cr.
15 cr.

FOURTH SEMESTER
CSIT 213 Database Management 3 cr.
Elective (to meet required 64 cr.)* 9 cr.
BIOL 162, CHEM 182 or PHYS 282 Lab Science Gen Ed (continue original science sequence) 4 cr.
16 cr.

TOTAL CREDITS 64

* Students should select electives relevant to the Bachelor's Degree concentration
Kean-Ocean students need COMM 154 and MATH 270 as general electives
Note: cr. (credit) = semester credit hour
Courses satisfying general education requirements must be selected from the list of Approved General Education Courses.
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Board of Trustees Approval Date: December 1, 2008
Board of Trustees Approval Date: February 28, 2011
Board of Trustees Approval Date: February 25, 2013
Board of Trustees Approval Date: May 28, 2013