



INFORMATICS

Associate In Science Degree & Certificate Curriculum Requirements

INFORMATICS

This major is intended for students wishing to upgrade or acquire new vocational skills in the emerging field of information analysis. It is designed to provide students with skills in applying analysis to information in specific areas of emphasis such as the sciences, business, and social sciences. The results of Informatics analyses are being seen in security (military, airports, etc.), forensics, biology and chemistry, medical technology, database systems (string-pattern matching, combinatorial search, data mining), financial analysis, journalism, psychology and social informatics). Emerging fields for informatics will continue to match new developments in information technology.

The program is cross-discipline built on a core set of database skills, and data analysis tools. For the degree and career certificate the final task is either a special project or internship, encompassing data/information analysis skills and an area of emphasis (as defined above), suitable for job experience. The special project requires preparation in an area of emphasis.

CAREER OPPORTUNITIES

The use of informatics in data/information analysis is emerging quickly. The primary job role for graduates of the program is research analyst in their respective area of emphasis

ASSOCIATE DEGREE REQUIREMENTS*

The Associate of Science degree in Informatics requires:

- Program Prerequisites (see below)
- English proficiency: English 1A, ESL 26, or equivalent.
- A minimum of 90 total units including:
 - All General Education requirements (reverse)
 - 39-40 units of core classes (below)
 - A demonstration of subject matter preparation (below)
 - A 3 unit program Capstone project or internship
 - Electives & other graduation requirements

PROGRAM PREREQUISITES (10 Units)

CIS 61A Informatics (5 units)

and one of the following:

CIS 60 Business Information Systems (5 units)

CIS 2 Computers in Society (5 units)

CORE COURSES (39-40 Units required)

CIS 52C Data Modeling and Relational Database Design (5 units)

CIS 52B Oracle SQL (5 units)

CIS 62A Data Warehousing & Data Mining (5 units)

CIS 63A1 Systems Analysis and Design (5 units)

CIS 63B Design & Analysis for Informatics Research (5 units)

COIN 78 XML (5 units)

MATH 10 Statistics (5 units)

or PSYC 10 Intro to Social Research (also Soc 10) (4 units)

and choose one of the following:

CIS 12A Fundamentals of VB.NET programming (5 units)

CIS 15A Computer Science I: C++ (5 units)

CIS 19A Introduction to programming with C# (5 units)

CIS 27A Computer Science I: JAVA (5 units)

CIS 68E Programming in PERL (5 units)

CIS 62B Modeling and Simulation (5 units)

SUBJECT MATTER PREPARATION

The student must show evidence of subject matter preparation in their area of emphasis either through taking appropriate course work (15-20 units minimum) or through applicable work experience (300 hours minimum). The dean in the designated area of emphasis will need to validate that the student is sufficiently prepared.

PROGRAM CAPSTONE

Upon completion of the Informatics core classes and having shown a sufficient level of subject matter preparation, the student seeking a degree or career certificate is ready to demonstrate competence by either completion of an Internship or of an Informatics project. In both cases, the basic core of Informatics understanding will be coupled with an application to the area of emphasis.

CIS 61Z Informatics Project (3 units)

or

CIS 117U CIS internship (~100 hours) (3 units)

CERTIFICATE REQUIREMENTS*

CAREER CERTIFICATE IN INFORMATICS (42-43 units)

Attaining a career certificate in informatics requires:

- Program Prerequisites: (see above).
- English proficiency: English 1A, ESL 26, or equivalent.
- 39-40 units of core classes (see above)
- A demonstration of subject matter preparation
- A 3 unit program Capstone project or internship (above)

SKILLS CERTIFICATE IN INFORMATICS (24-25 units)

Attaining a skills certificate in informatics requires:

- Program Prerequisites: (see above).
- English proficiency: English 110, ESL 25, or equivalent.
- the following classes (24-25 units)

CIS 52C Data Modeling and Relational Database Design (5 units)

CIS 62A Data Warehousing & Data Mining (5 units)

CIS 63A1 Systems Analysis & Design (5 units)

CIS 63B Design & Analysis for Informatics Research (5 units)

MATH 10 Statistics (5 units)

Or PSYC 10 Intro to Social Research (also Soc 10) (4 units)

* 50% of the major units must be taken within CTIS and a grade of C or better is required in these classes. All courses pertaining to the major must be taken for a letter grade. In addition, a GPA of 2.0 or higher is required in all Core and Support courses for the Degree or Certificate.

Academic Year 2007-2008