FOOTHILL COLLEGE
12345 El Monte Road ■ Los Altos Hills, CA ■ 94022-4599
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COMPUTERS, TECHNOLOGY & INFORMATION SYSTEMS DIVISION

INFORMATICS

Associate in Science Degree & Certificate 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.

UNITS REQUIRED FOR MAJOR: 66
UNITS REQUIRED FOR CERTIFICATE(S): 33-66

ASSOCIATE DEGREE REQUIREMENTS:
- English proficiency: ENGL 1A, ESL 26 or equivalent.
- Mathematics proficiency: MATH 103/105 or equivalent.

A minimum of 90 units required to include:
- All General Education requirements
- Program Prerequisites (9 Units)
- Core Courses (39 units)
- Demonstration of Subject matter preparation (15-20 Units or 300 hours applicable work exprience)
- Program Capstone Project or Internship (3 units)
- Electives & other graduation requirements

NOTE: 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 Certificates. 50% of the major units must be taken within Computers, Technology and Information Systems Division.

Program Prerequisites (9 Units)
CIS 61A Informatics (5 units)
CIS 60 Introduction to Business Information Systems (5 units)
or CIS 2 Computers & Society (5 units)
or BUS 91L Introduction to Business Information Processing (4 units)

Subject Matter Preparation (15 Units)
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.

CORE COURSES: 39 Units
CIS 52C Database Modeling & Relational Database Design (5 units)
CIS 52B Oracle SQL (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)
COIN 78 XML (5 units)
MATH 10 Statistics (5 units)
or PSYC 10 Introduction to Social Research (4 units)
or SOC 10 Introduction to Social Research (4 units)
And ONE of the following:
CIS 12A Fundamentals of Visual Basic.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 62B Modeling & Simulation (5 units)
CIS 68E Programming in PERL (5 units)

SUPPORT COURSES: 3 Units
Program Capstone Project
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 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 93U Computer Information Systems Experiential Internship (~100 hours) (3 units)

CERTIFICATE INFORMATION:

Certificate of Achievement in Informatics (66 Units)
Attaining a career certificate in informatics requires:
- Program Prerequisites (9 Units)
- English proficiency: ENGL 1A, ESL 26, or equivalent.
- Core courses (39 Units)
- Demonstration of subject matter preparation (15-20 Units or 300 hours applicable work experience)
- Program Capstone Project or Internship (3 units)

Skills Certificate in Informatics (33 Units)

Attaining a skills certificate in informatics requires:

- Program Prerequisites (9 Units)
- English proficiency: ENGL 110, ESL 25, or equivalent.

And the following classes (24 units)

CIS 52C Database Modeling & 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 Introduction to Social Research (4 units)
or SOC 10 Introduction to Social Research (4 units)

Academic Year 2008-2009

FOOTHILL COLLEGE
GENERAL EDUCATION & GRADUATION REQUIREMENTS
2008-2009

The requirements for the Associate in Art or Associate in Science Degree include completion of (1) a minimum of 90 units in prescribed courses; (2) a minimum of 24 units taken at Foothill College; (3) a grade-point average of 2.0 or better in all college courses including Foothill courses; (4) a major of at least 27 units in a curriculum approved by the Foothill Curriculum Committee; and (5) the seven general education requirements listed below. Students planning to transfer to four-year colleges or universities should also check with a counselor for the specific requirements of those institutions.

Students must successfully complete a minimum of 30-35 units from the courses listed below with at least one course in Humanities, English, Natural Sciences (with lab), Social and Behavioral Sciences, Communication and Analytical Thinking, American Cultures and Communities, and two courses in Lifelong Understanding from two different academic departments. **Courses may only be used in one area.**

I. Humanities

Arts: ART 1, 2A, 2AH, 2B, 2BH, 2C, 2CH, 2D, 2E, 4A with 4AX, 5A with 5AX, 11, 14, 36, 45A with 45AX; F A 1; GID 1; MUS 1, 2A, 2B, 2C, 3A, 3B, 3C, 7, 7E, 7D, 8, 8H, 10, 64A, 64B, 85A, 85B; PHOT 1, 5, 8, 8H, 10, 11; THTR 1, 5, 5B, 20A, 20B, 20C, 20D, 24, 30; VART 2A, 2B, 2C, 36B; WMN 15.

Letters: CHIN 1, 2, 3, 4, 5, 6, 13A, 13B, 14A, 14B, 25A, 25B; COMM 24; CRWR 6, 36B, 39A, 39B, 40, 41A, 41B, 60; ENGL 5, 8, 11, 12, 14, 17, 22, 23, 25, 25H, 26, 31, 32, 42A, 42B, 42C, 43, 45, 46A, 46B, 46C, 48A, 48B, 48C; FREN 1, 2, 3, 4, 5, 6, 13A, 13B, 14A, 14B, 25A, 25B, 39; GERM 1, 2, 3, 4, 5, 6, 13A, 13B, 14A, 14B, 25A, 25B, 39; HIST 4A, 4B, 4C, 4CH; HUMN 1A, 1B; JAPN 1, 2, 3, 4, 5, 6, 13A, 13B, 25A, 25B, 33; KORE 1, 2, 3, 4, 5, 6; LING 23, 25, 25H, 26: PHIL 2, 4, 8, 11, 20A, 22, 24, 25; SPAN 1, 2, 3, 4, 5, 6, 10A, 13A, 13B, 14A, 14B, 25A, 25; THTR 2A, 2B, 2C, 8.

II. English

ENGL 1A, 1AH or ESL 26.

III. Natural Sciences (with laboratory)

ASTR 10A with 10L, 10B with 10L, 10BH with 10L; BIOL 1A, 1B, 1C, 9 with 9L, 10, 13, 14, 15, 40A, 40B, 40C, 41; CHEM 1A, 10, 25, 30A; GEOG 1; GEOL 10, 11; HORT 10; MET 10 with 10L; PHYS 2A, 4A, 10.

IV. Social & Behavioral Sciences

ANTH 1, 2A, 2B, 3, 4, 5, 6, 8; BUSI 22, 53; CHLD 55; ECON 1A, 1B, 9, 12, 25; GEOG 1, 2, 5, 9, 10; GERM 8; HIST 4A, 4B, 4C, 4CH, 8, 9, 9H, 10, 15, 16, 16H, 17A, 17B, 17C, 18, 19, 20, 23A, 30; POLI 1, 2, 2H, 3, 3H, 5, 7, 8, 9, 15, 15H; PSYC 1, 4, 10, 14, 21, 22, 25, 30, 33, 40, 49, 55; SOC 1, 10, 11, 15, 19, 20, 21, 23, 30, 40; SOSC 20, WMN 5, 11, 21.

V. Communication & Analytical Thinking

CIS 12A, 15A, 18, 25A; COMM 1A, 1B, 2, 3, 4, 12, 24, 30, 46, 55; ENGL 1B, 1BH, 4; MATH 1A, 1B, 1C, 2A, 2B, 10, 11, 12, 22, 44, 46, 49, 51; PHIL 1, 7, 8, 50.

VI. American Cultures and Communities

ANTH 4; ART 2D; BIOL 14; CHLD 11; COMM 10, 12; ENGL 5, 8, 12, 31, 41, 48A, 48B, 48C; HIST 9, 9H, 10; MUS 8, 8H; PHIL 22; PHOT 8, 8H; POLI 7; PSYC 22; SOC 8, 23; SOSC 20; SPED 61; THTR 8; WMN 5, 11.

VII. Lifelong Understanding

Students must successfully complete a total of four units or more in Lifelong Understanding from two different academic departments. BIOL 8, 9, 45; BUSI 91L; CIS 2, 50A, 60; COIN 51; CNSL 1, 2, 72, 80, 90; COMM 2, 10, 12; CRLP 55, 70; DANC 1A, 1B, 2, 3A, 3B, 4, 5, 6, 7; HLTH 21; PHED 4; any physical activity course (PHED) or ALAP 60, 60X, 61, 61X, 62, 62X, 63, 63X, 64, 64X, 65, 65X, 66, 66X, 70, 70X, 71, 71X, 80, 80X; LIBR 1, 50, 71; SOC 19, 40: SOSC 20; SPED 52, 61, 72.

Minimum proficiency: ENGL 1A or ESL 26 and MATH 103 or MATH 105*, completed with a letter grade of "C" or better.

*Intermediate Algebra or equivalent means MATH 103 or 105, or mathematics placement test score indicating eligibility for a mathematics course beyond the level of MATH 105, or completion of a higher-level course with a grade of "C" or better, or completion of a bachelor degree or higher from an accredited U.S. college or university.