Note: MATH 177: Fulfills the Mathematics category of General Education.

Note: MATH 248: Fulfills the Advanced Quantitative Scientific Reasoning category of General Education.

Total Credit Hours: 73

Accounting Minor

Course Requirements

The minor in accounting consists of a minimum of 21 credit hours (seven courses), as follows:

|  |  |  |  |
| --- | --- | --- | --- |
| ACCT 201 | Principles of Accounting I: Financial | 3 | F, Sp, Su |
| ACCT 202 | Principles of Accounting II: Managerial | 3 | F, Sp, Su |
| ACCT 310 | Accounting Systems and Concepts | 3 | F, Sp |
| ACCT 311 | External Reporting I | 3 | F, Sp |
| ACCT 321 | Cost Management I | 3 | F, Sp, Su (as needed) |
| ACCT 331 | Federal Income Taxation | 3 | F, Sp |
| CIS 251 | Computers in Management | 3 | F, Sp, Su |

Total Credit Hours: 21

## Computer Information Systems

Learning Goals

Writing in the Discipline

**Department of Accounting and Computer Information Systems**

**Department Chair:** Jane Przybyla

**Computer Information Systems Program Faculty: Associate** **Professors** Bain, Choi, Hayden

Students must consult with their assigned advisor before they will be able to register for courses. A graded writing assignment is required in **every** course.

Computer Information Systems B.S.

Course Requirements

Courses

|  |  |  |  |
| --- | --- | --- | --- |
| ACCT 201 | Principles of Accounting I: Financial | 3 | F, Sp, Su |
| ACCT 202 | Principles of Accounting II: Managerial | 3 | F, Sp, Su |
| CIS 251 | Computers in Management | 3 | F, Sp, Su |
| CIS 352 | Management Information Systems | 3 | F, Sp |
| CIS 421 | Networks and Infrastructure | 3 | F, Sp |
| CIS 453 | Systems Analysis and Design | 3 | F, Sp |
| CIS 455 | Database Programming | 3 | F, Sp |
| CIS 462 | Applied Software Development Project | 3 | F, Sp |
| ECON 214 | Principles of Microeconomics | 3 | F, Sp, Su |
| ECON 215 | Principles of Macroeconomics | 3 | F, Sp, Su |
| FIN 301 | Managerial Finance and Control | 4 | F, Sp, Su |
| MGT 301 | Foundations of Management | 3 | F, Sp, Su |
| MGT 341 | Business, Government, and Society | 3 | F, Sp, Su |
| MGT 348 | Operations Management | 3 | F, Sp, Su |
| MKT 301 | Introduction to Marketing | 3 | F, Sp, Su |

ONE COURSE from the following:

|  |  |  |  |
| --- | --- | --- | --- |
| CIS 255 | Introduction to Java in Business | 3 | As needed |
| CIS 256 | Introduction to COBOL Programming | 3 | As needed |
| CIS 257 | Introduction to Visual Basic in Business | 3 | As needed |
| CIS 355 | Advanced Business Applications in Java | 3 | As needed |
| CIS 357 | Advanced Business Applications in Visual Basic | 3 | As needed |

THREE ADDITIONAL COURSES in computer information systems or computer science at the 300-level or above or COMM 348 (for a total of 9-12 credits):

|  |  |  |  |
| --- | --- | --- | --- |
| COMM 330 | Interpersonal Communication | 4 | F |

COGNATES

|  |  |  |  |
| --- | --- | --- | --- |
| ENGL 230 | Writing for Professional Settings | 4 | F, Sp, Su |
| MATH 177 | Quantitative Business Analysis I | 4 | F, Sp, Su |
| MATH 248 | Business Statistics I | 4 | F, Sp, Su |

Note: MATH 177: Fulfills the Mathematics category of General Education.

Note: MATH 248: Fulfills the Advanced Quantitative Scientific Reasoning category of General Education.

Total Credit Hours: 70-73

Computer Information Systems Minor

Course Requirements

A minor in computer information systems consists of a minimum of 18 credit hours (six courses), as follows:

|  |  |  |  |
| --- | --- | --- | --- |
| CIS 251 | Computers in Management | 3 | F, Sp, Su |
| CIS 352 | Management Information Systems | 3 | F, Sp |
| CIS 453 | Systems Analysis and Design | 3 | F, Sp |

AND THREE ADDITIONAL courses from Computer Information Systems at the 300-level or above.

Total Credit Hours: 18-24

data science Minor

Course Requirements

A minor in data science consists of a minimum of 19 credit hours (five courses), as follows:

|  |  |  |  |
| --- | --- | --- | --- |
| CIS 352 | Management Information Systems | 3 | F, Sp |
| MATH 177 | Quantitative Business Analysis | 4 | F, Sp, Su |
| MATH 248 | Business Statistics | 4 | F, Sp, Su |
| CIS 470 | Introduction to Data Science | 4 | F |
| CIS 472 | Data Visualization | 4 | As needed |

Total Credit Hours: 19

## Economics

Learning Goals

Writing in the Discipline

**Department of Economics and Finance**

**Department Chair:** Murat Aydogdu

**Economics Program Faculty:** **Professor** Blais; **Associate Professors** Basu, Karim, Tashiro

Students **must**consult with their assigned advisor before they will be able to register for courses. A graded writing assignment is required for every course.

Economics B.A.

Course Requirements

Courses

|  |  |  |  |
| --- | --- | --- | --- |
| ECON 214 | Principles of Microeconomics | 3 | F, Sp, Su |
| ECON 215 | Principles of Macroeconomics | 3 | F, Sp, Su |
| ECON 314 | Intermediate Microeconomic Theory and Applications | 3 | F, Sp |
| ECON 315 | Intermediate Macroeconomic Theory and Analysis | 3 | Sp |
| ECON 449 | Introduction to Econometrics | 4 | F, Sp |
| ECON 461 | History of Economic Thought | 3 | F |
|  |   |  |  |
| ECON 462 | Seminar in Economic Research | 3 | Sp |
|  | -Or- |  |  |
| ECON 492 | Independent Study II | 3 | As needed |

FOUR COURSES from

|  |  |  |  |
| --- | --- | --- | --- |
| ECON 421 | International Economics | 3 | As needed |
| ECON 422 | Economics of Developing Countries | 3 | As needed |
| ECON 423 | Financial Markets and Institutions | 3 | F, Sp |
| ECON 431 | Labor Economics | 3 | As needed |
| ECON 433 | Economics of Government | 3 | As needed |
| ECON 435 | Urban Economics | 3 | As needed |
| ECON 436 | Industrial Organization and Market Structure | 3 | As needed |
| ECON 437 | Environmental Economics | 3 | As needed |
| ECON 490 | Independent Study in Economics | 3 | As needed |
| ECON 491 | Independent Study I | 3 | As needed |
| FIN 301 | Managerial Finance and Control | 4 | F, Sp, Su |

Cognates

|  |  |  |  |
| --- | --- | --- | --- |
| CIS 251 | Computers in Management | 3 | F, Sp, Su |
| ENGL 230 | Writing for Professional Settings | 4 | F, Sp, Su |
| MGT 249 | Business Statistics II | 3 | F, Sp, Su |
| MATH 177 | Quantitative Business Analysis I | 4 | F, Sp, Su |
| MATH 248 | Business Statistics I | 4 | F, Sp, Su |

Note: MATH 177: Fulfills the Mathematics category of General Education.

Note: MATH 248: Fulfills the Advanced Quantitative Scientific Reasoning category of General Education.

Total Credit Hours: 52-53

Economics Minor

Course Requirements

The minor in economics consists of a minimum of 18 credit hours (six courses), as follows:

|  |  |  |  |
| --- | --- | --- | --- |
| ECON 214 | Principles of Microeconomics | 3 | F, Sp, Su |
| ECON 215 | Principles of Macroeconomics | 3 | F, Sp, Su |
|  |   |  |  |
| ECON 314 | Intermediate Microeconomic Theory and Applications | 3 | F, Sp |
|  | -Or- |  |  |
| ECON 315 | Intermediate Macroeconomic Theory and Analysis | 3 | Sp |

AND ANY THREE ADDITIONAL courses in economics, except ECON 200.

Total Credit Hours: 18-21

## Finance

Learning Goals

Writing in the Discipline

**Department of Economics and Finance**

**Department Chair:** Murat Aydogdu

**Finance Program Faculty: Professor** Kazemi; **Associate Professor** Aydogdu; **Assistant Professor** Ullah

Students **must** consult with their assigned advisor before they will be able to register for courses. A graded writing assignment is required in **every** course.

Finance B.S.

Course Requirements

Courses

|  |  |  |  |
| --- | --- | --- | --- |
| ECON 214 | Principles of Microeconomics | 3 | F, Sp, Su |
| ECON 215 | Principles of Macroeconomics | 3 | F, Sp, Su |
| FIN 301 | Managerial Finance and Control | 4 | F, Sp, Su |
| FIN 335 | Financial Statement Analysis | 3 | F, Sp |
| FIN 423 | Financial Markets and Institutions | 3 | F, Sp |
| FIN 431 | Intermediate Finance | 3 | F, Sp |
| FIN 432 | Theory of Investment | 3 | F, Sp |
| FIN 434 | International Financial Management | 3 | F, Sp |
|  |   |  |  |
| FIN 461 | Seminar in Finance | 3 | F, Sp |

Prerequisite: CIS 352 and one course from the following: CIS 255, CIS 256, CIS 257, or consent of department chair.

Offered: Fall, Spring.

CIS 455 - Database Programming (3)

The basic components of file and communication systems as they support information systems are surveyed. (Formerly CIS 355.)

Prerequisite: CIS 352 and one course from the following: CIS 255, CIS 256, CIS 257, or consent of department chair.

Offered: Fall, Spring.

CIS 462 - Applied Software Development Project (3)

This is a practicum in the application of programming and systems-development concepts, resulting in a comprehensive systems-development project. (Formerly CIS 362.)

Prerequisite: CIS 453 and CIS 455, or consent of department chair.

Offered: Fall, Spring.

CIS 467 - Directed Internship (3-9)

Students are assigned to a business, an industrial organization, or a not-for-profit organization and supervised by a mentor. Students receive 1 credit hour for every four hours of work. A two-hour biweekly seminar is included. Graded S, U.

Prerequisite: Major in computer information systems and completion of at least 60 college credits.

Offered: Fall, Spring, Summer.

**CIS 470 - Introduction to Data Science (4)**

Domain knowledge in mathematics, statistics, machine learning, and databases that pertains to specific data and information extraction are introduced. Students use these tools to solve unstructured problems.

Prerequisite: CIS 352 and MATH 248, or consent of department chair.

Offered: Fall.

**CIS 472 - Data Visualization (4)**

This course introduces algorithms and techniques for effective data visualizations based on data science principles, graphic and communication design, visual art, perceptual and cognitive science. Data visualization tools are introduced.

Prerequisite: CIS 352 and MATH 248, or consent of department chair.

Offered: As needed.

CIS 490 - Directed Study (3)

Designed to be a substitute for a traditional course under the instruction of a faculty member.

Prerequisite: Consent of instructor, department chair and dean.

Offered: As needed.

CIS 491 - Independent Study I (3)

This course emphasizes the development of research for students admitted to the computer information systems honors program. The research topic is selected and conducted under the mentorship of a faculty advisor.

Prerequisite: Admission to the accounting honors program and consent of instructor, department chair and dean.

Offered: As needed.

CIS 492 - Independent Study II (3)

This course continues the development of research begun in CIS 491. The honors research is completed under the consultation of a faculty advisor. A research paper and presentation are required.

Prerequisite: CIS 491 and consent of instructor, department chair and dean.

Offered: As needed.

CIS 535 - Data Management (3)

Various techniques are explored for the management of the design and development of database systems. Issues in the creation and use of logical data models, database administration, and concurrent processing are explored.

Prerequisite: Senior standing or consent of department chair.

Offered: As needed.

CIS 541 - Legal Aspects of Information Technology (3)

The legal environment within which an organization must conduct its electronic commerce is reviewed. Legal liability for data transmission and exchange is also explored.

Prerequisite: Senior standing or consent of department chair.

Offered: As needed.

CIS 542 - Electronic Commerce (3)

The systems and management challenges and the opportunities and successful strategies required to develop and maintain electronic commerce are examined. Marketing, strategy, infrastructure design, and server management are also covered.

Prerequisite: Senior standing or consent of department chair.

Offered: As needed.

CIS 543 - Decision Support Systems (3)

The decision-making process is examined, with emphasis on dealing with incomplete and inexact data, including unstructured environments. The use of data management, modeling, and simulation are explored.

Prerequisite: Senior standing or consent of department chair.

Offered: As needed.

## CSCI - Computer Science

CSCI 101 - Introduction to Computers (3)

Topics include an overview of computer systems, hardware and software, algorithms, computer history, applications, and the impact of computers on society. Hands-on computer work.

Prerequisite: Completed college mathematics competency.

Offered: Fall, Spring, Summer.

CSCI 157 - Introduction to Algorithmic Thinking in Python (4)

This course introduces algorithmic thinking and computer programming in the Python programming language. Topics include algorithms, flowcharts, top-down design, selection, repetition, modularization, input-output, and recursion.

Prerequisite: Completed college mathematics competency.

Offered: Fall, Spring.