# Master of Science (M.S.) Major in Accounting and Information Technology

## Major Program

The Master of Science (M.S.) degree with a major in Accounting and Information Technology (MSAIT) is a cross-department curriculum comprised of accounting and information technology core courses, prescribed accounting and information technology electives, and open graduate business or accounting electives. The program does not have a thesis requirement; however, students must complete a comprehensive examination at the end of the program to satisfy university requirements. Applicants with undergraduate degrees in disciplines other than business or from a non-AACSB accredited university could be required to complete additional background course work. Applicants to the M.S. degree program who hold an undergraduate degree from an AACSB accredited university will normally require 36 semester hours of graduate course credit to complete the program.

## Application Requirements

The items listed below are required for admission consideration for applicable semesters of entry during the current academic year. Submission instructions, additional details, and changes to admission requirements for semesters other than the current academic year can be found on The Graduate College’s website (http://www.gradcollege.txstate.edu). International students should review the International Admission Documents webpage (http://mycatalog.txstate.edu/graduate/admission-documents/international/) for additional requirements.

- completed online application
- $55 nonrefundable application fee
- or
- $90 nonrefundable application fee for applications with international credentials
- baccalaureate degree from a regionally accredited university
- official transcripts from each institution where course credit was granted
- a competitive GPA in the last 60 hours of undergraduate course work (plus any completed graduate courses)
- official GRE or GMAT (general test only) required with competitive scores
- responses to specific essay questions
- resume/CV detailing work experience, extracurricular and community activities, and honors and achievements
- two forms of recommendation from persons best able to assess the student’s ability to succeed in graduate school
- background course work in:

  - completed online application
  - $55 nonrefundable application fee
  - or
  - $90 nonrefundable application fee for applications with international credentials
  - baccalaureate degree from a regionally accredited university
  - official transcripts from each institution where course credit was granted
  - a competitive GPA in the last 60 hours of undergraduate course work (plus any completed graduate courses)
  - official GRE or GMAT (general test only) required with competitive scores
  - responses to specific essay questions
  - resume/CV detailing work experience, extracurricular and community activities, and honors and achievements
  - two forms of recommendation from persons best able to assess the student’s ability to succeed in graduate school
  - background course work in:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 2361</td>
<td>Introduction to Financial Accounting ¹</td>
<td>3</td>
</tr>
<tr>
<td>ACC 3313</td>
<td>Intermediate Accounting I ²</td>
<td>3</td>
</tr>
<tr>
<td>QMST 2333</td>
<td>Business Statistics ¹</td>
<td>3</td>
</tr>
</tbody>
</table>

¹ Must be completed before admission to the graduate program.
² Students must make a grade of “C” or better to continue in graduate program.

## Background Courses

The purpose of background courses is to provide a strong base of knowledge for advanced business and accounting studies. Background courses may be waived for students who have successfully completed previous course work addressing current developments in the content area. The background course requirement is composed of the following courses:

<table>
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<td>3</td>
</tr>
</tbody>
</table>

¹ Must be completed before admission to the graduate program.
² Students must make a grade of “C” or better to continue in the graduate program.

Background courses cannot be used to fulfill the 36 hours of M.S. core and elective courses. The equivalent undergraduate courses also may be taken at any accredited four-year college or university. Information regarding transfer work is identified in the Course Credit (http://mycatalog.txstate.edu/graduate/registration-course-credit/course-credit/) section of this catalog.

Any student enrolled in a graduate degree program in the McCoy College of Business Administration can earn no more than two grades of C or lower. Even if the grade of C or lower was replaced with a higher grade as a result of repeating the course, the original grade counts as a “strike” under this policy. Upon earning the third C (or lower), the student is automatically placed on academic suspension and permanently dismissed from their degree program without any possibility of readmission to their program or another degree program in McCoy College. The 3 C Policy takes precedent over probationary status. So, if a student earns a third C they are automatically dismissed from their program permanently; even if probation does not occur.

## TOEFL or IELTS Scores

Non-native English speakers who do not qualify for an English proficiency waiver:

- official TOEFL iBT scores required with a 78 overall and minimum individual module scores of
  - 19 listening
  - 19 reading
  - 19 speaking
  - 18 writing
- official IELTS (academic) scores required with a 6.5 overall and
  - minimum individual module scores of 6.0

This program does not offer admission if the scores above are not met.

## Degree Requirements

The Master of Science (M.S.) degree with a major in Accounting and Information Technology requires 36 semester credit hours.
### Course Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Required Courses</strong></td>
<td></td>
</tr>
<tr>
<td>ACC 5361</td>
<td>Accounting Analysis for Managerial Decision Making</td>
<td>3</td>
</tr>
<tr>
<td>ACC 5375</td>
<td>Business Information Consulting</td>
<td>3</td>
</tr>
<tr>
<td>B A 5352</td>
<td>Developing the Financial Perspective of the Firm</td>
<td>3</td>
</tr>
<tr>
<td>CIS 5355</td>
<td>Database Management Systems</td>
<td>3</td>
</tr>
<tr>
<td>CIS 5358</td>
<td>Agile Project Management For Business Professionals</td>
<td>3</td>
</tr>
<tr>
<td>CIS 5368</td>
<td>Information Security</td>
<td>3</td>
</tr>
<tr>
<td>CIS 5371</td>
<td>Accounting Information Systems and Controls</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Electives</strong></td>
<td></td>
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<tr>
<td></td>
<td>Choose 12 hours from the following: ¹</td>
<td>12</td>
</tr>
<tr>
<td>ACC 5352</td>
<td>Financial Statement Reporting and Analysis</td>
<td></td>
</tr>
<tr>
<td>ACC 5362</td>
<td>Cost and Managerial Accounting Theory</td>
<td></td>
</tr>
<tr>
<td>ACC 5373</td>
<td>Fraud Detection and Prevention</td>
<td></td>
</tr>
<tr>
<td>CIS 5357</td>
<td>Computing for Data Analytics</td>
<td></td>
</tr>
<tr>
<td>CIS 5360</td>
<td>E-Commerce: Strategies, Technologies, and Applications</td>
<td></td>
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<tr>
<td>CIS 5364</td>
<td>Data Warehousing</td>
<td></td>
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<tr>
<td>CIS 5370</td>
<td>Enterprise Resource Planning and Business Intelligence</td>
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<tr>
<td>CIS 5378</td>
<td>Information Security Policies and Compliance</td>
<td></td>
</tr>
<tr>
<td>CIS 5395</td>
<td>Internship in Computer Information Systems</td>
<td></td>
</tr>
<tr>
<td>QMST 5332</td>
<td>Optimization</td>
<td></td>
</tr>
<tr>
<td>QMST 5334</td>
<td>Statistical Methods for Business</td>
<td></td>
</tr>
<tr>
<td>QMST 5335</td>
<td>Forecasting and Simulation</td>
<td></td>
</tr>
<tr>
<td>QMST 5336</td>
<td>Analytics</td>
<td></td>
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<tr>
<td></td>
<td><strong>Free Electives</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Choose 3 hours of advisor-approved electives</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total Hours</strong></td>
<td>36</td>
</tr>
</tbody>
</table>

¹ At least one but not more than two of the four must be an Accounting course.

### Comprehensive Examination Requirements

All candidates for graduate degrees must pass one or more comprehensive examinations.

Master's level courses in Accounting, and Computer Information Systems: ACC (p. 2), CIS (p. )

### Courses Offered

#### Accounting (ACC)

**ACC 5315. Selected Topics in Financial Accounting.**

The study of specialized financial accounting topics, existing and prospective, necessary for an advanced understanding of financial reporting. Topics include: pensions and post-retirement benefits, deferred taxes, derivatives, share-based payments, interim and segment reporting and emerging issues of the Emerging Issues Task Force. Prerequisite: ACC 3314 with a grade of “B” or better.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.  
Grade Mode: Standard Letter

**ACC 5316. Advanced Accounting.**

A study of accounting for business combinations and consolidated financial statements. Additional selected topics may include accounting for multinational operations, interim reporting, SEC reporting, partnership and governmental and not-for-profit accounting. Prerequisite: ACC 3314 with a grade of “B” or better.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.  
Grade Mode: Standard Letter

**ACC 5320. Auditing.**

A study of the underlying theory of external financial auditing including professional ethics, auditing standards and procedures, and the role of auditor's judgment. (Suggested for CPA eligibility). Prerequisites: ACC 3314 and ACC 4313 both with grades of “B” or better.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.  
Grade Mode: Standard Letter

**ACC 5340. Individual Income Tax.**

A study of the tax concepts and issues involved in an individual's employment and personal life, and in sole proprietorships, property transactions, tax administration and tax practice. Regulatory and ethical issues are incorporated into the discussion. This course may not count as an elective in any master's program in the McCoy College of Business. Prerequisite: ACC 3313 with a grade of “B” or better.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.  
Grade Mode: Standard Letter

**ACC 5350. Professional Accounting Research.**

This course provides a study of the sources of authoritative standards in financial accounting. The course develops procedures for identifying the applicable accounting issues, locating appropriate authority, and communicating the results of professional research. Prerequisite: ACC 3314 with a grade of “B” or better.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.  
Grade Mode: Standard Letter

**ACC 5352. Financial Statement Reporting and Analysis.**

A study of financial statement reporting and analysis. Use of tools and skills will be used to analyze and interpret financial reports for assessing financial performance of firms to facilitate investment, lending, and other financial decisions in a variety of business contexts. Prerequisite: ACC 3313 with a grade of “B” or better or ACC 5361 with a grade of “C” or better.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.  
Grade Mode: Standard Letter
ACC 5355. IT Auditing.
A study of the IT audit: the process of collecting and evaluating evidence of an IT system practices and operations. The course develops understanding of the procedures to test whether the systems are safeguarding assets, maintaining data security and operating effectively and efficiently. Prerequisite: ACC 4313 with a grade of ‘C’ or better.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

ACC 5357. Regulation and Professionalism.
This course will cover the professional and legal responsibilities and liabilities of the accounting profession and tax preparers; the commercial law applicable to business transactions; and the legal structure of business organizations. It will also provide a basic overview of corporate and partnership taxation, focusing on current topics and developments. Prerequisites: ACC 3313 and ACC 3314 both with a grade of ‘B’ or better and ACC 4328 with a grade of ‘D’ or better.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

ACC 5361. Accounting Analysis for Managerial Decision Making.
Use of accounting information for improving managerial decision making. Emphasis is on understanding the practice of business management, budgeting, cost behavior, and operational, internal, and management control. Prerequisite: B A 5352 with a grade of ‘C’ or better.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

ACC 5362. Cost and Managerial Accounting Theory.
A study of recent developments and topics in the area of cost and managerial accounting. Includes a discussion of quantitative techniques and their applicability to accounting problems. Prerequisites: ACC 3365 or ACC 5361 either with a grade of "B" or better.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

ACC 5366. Business Entity Taxation.
Federal income tax provisions affecting business decisions, with an emphasis on C Corporations, Limited Liability Companies, and Partnerships. An introduction to the choice, formation, organization, operation and distribution rules or the preceding business entities. Prerequisites: ACC 3314 and ACC 4328 both with grades of ‘B’ or better.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

ACC 5367. Seminar in Auditing.
A continuing study of the underlying theory of auditing with an emphasis on professionalism, ethics, and legal liability. Coverage will also extend to the responsibilities and standards of external auditing, internal auditing, governmental auditing, and international auditing, including exposure to current developments in these areas. Practical applications will focus on risk assessment, the use of analytical procedures, and the use of the computer as an audit tool. Prerequisite: ACC 5320 with a grade of ‘C’ or better.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

ACC 5369. Special Studies in Accounting.
Directed study and research on selected accounting topics, including the development of accounting thought and research in; advanced tax topics, international accounting, professional ethics and managerial and financial accounting. Courses will be offered as independent instruction. Prerequisite: Instructor approval.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Course Attribute(s): Exclude from 3-peat Processing
Grade Mode: Standard Letter

ACC 5370. Internship in Accounting.
Experiential learning during which the students work in accounting. This work experience may be in public, industry, or governmental accounting units. The student is immersed in a variety of intensive work assignments with increasing levels of responsibility. Students taking ACC 5370 for credit may not take ACC 5680 for credit. Prerequisite: Instructor approval.
3 Credit Hours. 0 Lecture Contact Hours. 20 Lab Contact Hours.
Course Attribute(s): Exclude from 3-peat Processing
Grade Mode: Credit/No Credit

ACC 5371. Accounting Information Systems.
This course studies various accounting information systems technologies used to enhance business process operations. It also explores management of risks and controls, and management of information resources. Prerequisite: ACC 3385 with a grade of ‘B’ or better.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

ACC 5372. Tax Research.
An examination of the sources of tax authority, which include its primary sources (legislative, judicial, and administrative), as well as secondary sources. The course also develops procedures for identifying the applicable tax issues, locating appropriate tax authority, and communicating the results of tax research. Prerequisites: ACC 3314 and ACC 4328 both with grades of ‘B’ or better.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

ACC 5373. Fraud Detection and Prevention.
This course provides an in-depth study of how and why fraud is committed. It explores red flags that may help in detecting fraudulent activities, how fraudulent conduct can be deterred, and how allegations of fraud should be investigated and resolved. Prerequisite: ACC 3313 with a grade of ‘B’ or better.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

ACC 5375. Business Information Consulting.
Integrative capstone for the MSAIT program using principles and concepts applied through the analysis and presentation of case studies dealing with current issues or emerging trends in the fields of accounting and information technology for the accounting professionals serving as consultants. Prerequisite: ACC 5371 with a grade of ‘C’ or better.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter
ACC 5377. Partnership Taxation.
A comprehensive study of the tax implications of conducting a business as a partnership or as a limited liability company. Life-cycle analysis and tax planning considerations are emphasized. Prerequisite: ACC 4328 with a grade of 'C' or better.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

This course focuses on the procedural aspects of tax planning and tax return preparation. Coverage includes IRS enforcement tools and corresponding taxpayer rights, audits and appeals, civil and criminal penalties, and statutory relief provisions. Professional standards and ethical considerations in tax practice are emphasized. Corequisite: ACC 5366 with a grade of 'C' or better.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

ACC 5389. Corporate Governance and Ethics.
A study of the corporate governance and ethical issues in accounting, including ethical reasoning, integrity, objectivity, independence, core values and professional issues. Prerequisites: ACC 3314 with a grade of 'B' or better and ACC 3363 and ACC 3365 and ACC 4313 and [ACC 4328 or ACC 5340] all with grades of 'C' or better.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

ACC 5390A. International Accounting.
A study of the impact of international business activity on accounting standard setting. This course investigates the development of international accounting standards and compares those standards to US standards. Students taking ACC 4390A for credit may not take ACC 5390A for credit. (MULT) Prerequisite: ACC 3313 with a grade of 'B' or better.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Course Attribute(s): Exclude from 3-peat Processing|Multicultural Content|Topics
Grade Mode: Standard Letter

ACC 5390F. Mergers, Acquisitions, and Consolidations Taxation.
This course on mergers, acquisitions and consolidations will examine the tax ramifications and corporate strategies considerations of buying, selling and combining different companies; the consolidated tax return consequences of those affiliated groups; and the residual outcomes and tax attributes that result from corporate divisions. Prerequisite: ACC 5366 with a grade of 'C' or better.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Course Attribute(s): Exclude from 3-peat Processing|Topics
Grade Mode: Standard Letter

ACC 5390G. Sustainability Reporting.
This course on sustainability reporting strategies will examine analytical methods and reporting techniques used by for-profit and non-profit companies to support sustainable operations.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Course Attribute(s): Exclude from 3-peat Processing|Topics
Grade Mode: Standard Letter

ACC 5390I. Regulation and Professionalism.
This course will cover the professional and legal responsibilities and liabilities of the accounting profession and tax preparers; the commercial law applicable to business transactions; and the legal structure of business organizations. It will also provide a basic overview of corporate and partnership taxation, focusing on current topics and developments. Prerequisite: ACC 3314 and ACC 4328 both with grades of 'B' or better.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Course Attribute(s): Exclude from 3-peat Processing|Topics
Grade Mode: Standard Letter

ACC 5390K. Oil and Gas Taxation.
This course provides an introduction to US federal income taxation of domestic oil and gas operations and transactions. The course examines taxation associated with the operational life-cycle of oil and gas operations including exploration, development, production and abandonment. Certain international tax aspects will be considered. Prerequisite: ACC 4328 with a grade of 'B' or better.
3 Credit Hours. 45 Lecture Contact Hours. 0 Lab Contact Hours.
Course Attribute(s): Exclude from 3-peat Processing|Topics
Grade Mode: Standard Letter

ACC 5680. Internship in Accounting.
This internship involves experiential learning over one entire semester during which the students work in accounting. This work experience may be in public, industry, or governmental accounting units. The student is immersed in a variety of intensive work assignments with increasing levels of responsibility. Students taking ACC 5370 for credit may not take ACC 5680. Prerequisite: Instructor approval.
6 Credit Hours. 0 Lecture Contact Hours. 40 Lab Contact Hours.
Grade Mode: Credit/No Credit

Computer Information Systems (CIS)

CIS 5199B. Thesis.
This course represents a student’s continuing thesis enrollment. The student continues to enroll in this course until the thesis is submitted for binding. Graded on a credit (CR), progress (PR), no-credit (F) basis.
1 Credit Hour. 1 Lecture Contact Hour. 0 Lab Contact Hours.
Course Attribute(s): Exclude from 3-peat Processing
Grade Mode: Credit/No Credit

CIS 5299B. Thesis.
This course represents a student’s continuing thesis enrollment. The student continues to enroll in this course until the thesis is submitted for binding. Graded on a credit (CR), progress (PR), no-credit (F) basis.
2 Credit Hours. 2 Lecture Contact Hours. 0 Lab Contact Hours.
Course Attribute(s): Exclude from 3-peat Processing
Grade Mode: Credit/No Credit

CIS 5318. Information Technology in the Digital Economy.
Provides an understanding of the issues involved in the strategic management of the information assets of organizations. Examines the issues and challenges that users face within the Information Technology (IT) management arena as part of a firm's business and IT strategy. Focus is on managerial rather than technical issues. Prerequisite: B A 5351 with a grade of 'C' or better.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter
CIS 5355. Database Management Systems.
Explores the concepts, principles, issues and techniques for managing corporate data resources using database management systems. The course includes techniques for analysis, design and development of database systems, creating and using logical data models, database query languages, and procedures for evaluating database management software. Students will use a relational database management system to develop a management information system.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

CIS 5356. Business Telecommunications.
Explores the technology that is revolutionizing the manner in which business and government conduct their operations and the effects new developments in communication media have on computing systems. This course reflects the current state-of-the-art in data communication networking.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

CIS 5357. Computing for Data Analytics.
This course focuses on fundamentals of programming. Students will learn to design and implement applications, and programmatically handle a variety of data management functionalities.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

CIS 5358. Agile Project Management For Business Professionals.
An in-depth study of the project management body of knowledge as applied to Information Technology with emphasis on Agile methodologies and the management of scope, costs, schedules, quality and risks. Includes program management, system methodologies, material procurement, and human, cultural, and international issues and their impact on the organization.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

This course is designed to familiarize students with current and emerging e-commerce technologies. Topics include Internet technology for business advantage, reinventing the future of business through e-commerce, business opportunities in e-commerce, and social, political, global, and ethical issues associated with e-commerce.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

CIS 5360. Data Warehousing.
Familiarizes students with current and emerging data warehousing technologies that play a strategic role in business organizations. Topics include data warehouse development life cycle, data warehouse navigation, data quality, and performance issues. Prerequisites: CIS 5355 with a grade of 'C' or better.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

This course focuses on deriving actionable knowledge from data using algorithms and industry standard tools. It covers the complete process, key technologies, core machine learning algorithms, and programming used for business intelligence. Prerequisite: CIS 5357 and QMST 5336 both with grades of 'C' or better.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

This course covers the analysis, design, development, implementation, and maintenance of information security systems. Topics include legal, ethical, professional, personnel issues; risk management; technology; cryptography; and physical security.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

CIS 5363. Computing for Data Analytics.
This course focuses on fundamentals of programming. Students will learn to design and implement applications, and programmatically handle a variety of data management functionalities.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

CIS 5364. Data Warehousing.
Familiarizes students with current and emerging data warehousing technologies that play a strategic role in business organizations. Topics include data warehouse development life cycle, data warehouse navigation, data quality, and performance issues. Prerequisites: CIS 5355 with a grade of 'C' or better.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

This course focuses on deriving actionable knowledge from data using algorithms and industry standard tools. It covers the complete process, key technologies, core machine learning algorithms, and programming used for business intelligence. Prerequisite: CIS 5357 and QMST 5336 both with grades of 'C' or better.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

This course covers the analysis, design, development, implementation, and maintenance of information security systems. Topics include legal, ethical, professional, personnel issues; risk management; technology; cryptography; and physical security.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

This course focuses on individual in-depth research. Students, in consultation with a faculty member, choose a selected area of study in CIS and work independently on a specialized project. Course may be repeated with approval of department chair. Prerequisite: Instructor approval.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Course Attribute(s): Exclude from 3-peat Processing
Grade Mode: Standard Letter

CIS 5368. Enterprise Resource Planning and Business Intelligence.
The use of information technology in integrating enterprises for operational control and business intelligence is examined via Enterprise Resource Planning (ERP) applications in customer relationships management, accounting, finance, purchasing, production control, sales, marketing, and human resource management. Emphasizes managerial issues surrounding the need, selection, and implementation of ERP systems.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

CIS 5369. Accounting Information Systems and Controls.
A study of accounting information systems and controls as well as their role in the current technology-intensive business environment. Emphasis is placed on contemporary technology and applications, IT and business systems assessments, IT internal controls, control concepts and procedures, information systems auditing, and transaction cycles. Prerequisite: ACC 3313 or ACC 5361 either with a grade of 'C' or better.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

This course focuses on the technology and managerial issues related to information policies, regulations, and compliance that assure confidentiality, integrity, and availability of data and computer systems. Topics include information security policy, regulations, laws, standards, framework, compliance, and governance. Prerequisite: CIS 5368 with a grade of 'C' or better.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter
This course covers programming and statistical computing concepts. Programming concepts include data manipulation, data structures, control structures, functions, basic algorithms, and matrix manipulations. Statistical computing topics include numerical linear algebra, Monte Carlo methods, and numerical optimization.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Course Attribute(s): Exclude from 3-peat Processing
Grade Mode: Standard Letter

CIS 5395. Internship in Computer Information Systems.
This course provides students with opportunities for experiential learning by working on a computer information systems project. It enables integration of professional and academic experience through internship with an external employer. Prerequisite: Instructor approval.
3 Credit Hours. 1 Lecture Contact Hour. 20 Lab Contact Hours.
Course Attribute(s): Exclude from 3-peat Processing
Grade Mode: Credit/No Credit

CIS 5399A. Thesis.
This course represents a student’s initial thesis enrollment. No thesis credit is awarded until the student has completed the thesis in Data Analytics and Information Systems. Graded on a credit (CR), progress (PR), no-credit (F) basis.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Credit/No Credit

CIS 5399B. Thesis.
This course represents a student’s continuing thesis enrollment. The student continues to enroll in this course until the thesis is submitted for binding. Graded on a credit (CR), progress (PR), no-credit (F) basis.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Course Attribute(s): Exclude from 3-peat Processing
Grade Mode: Credit/No Credit

CIS 5599B. Thesis.
This course represents a student’s continuing thesis enrollment. The student continues to enroll in this course until the thesis is submitted for binding. Graded on a credit (CR), progress (PR), no-credit (F) basis.
5 Credit Hours. 5 Lecture Contact Hours. 0 Lab Contact Hours.
Course Attribute(s): Exclude from 3-peat Processing
Grade Mode: Credit/No Credit

CIS 5999B. Thesis.
This course represents a student’s continuing thesis enrollment. The student continues to enroll in this course until the thesis is submitted for binding. Graded on a credit (CR), progress (PR), no-credit (F) basis.
9 Credit Hours. 9 Lecture Contact Hours. 0 Lab Contact Hours.
Course Attribute(s): Exclude from 3-peat Processing
Grade Mode: Credit/No Credit