MANAGEMENT INFORMATION SYSTEMS, BBA

Program Description
The MIS program supports students and professionals in their applied use of computers. Information systems supports a variety of business activities using computer systems; it is not intended to prepare software developers.

Student Learning Outcome: Students will demonstrate an understanding of how computer systems support a variety of business activities. Complete the Business Foundation Curriculum in the freshman and sophomore years.

BBA Student Learning Goals and Objectives
- G1. To Be Effective Communicators
  - CG1.O1 – Demonstrate the ability to write professionally
  - CG1.O2 – Prepare and deliver professional presentations
  - CG1.O3 – Practice professional interactions
- G2. To Be Competent in Business Practices
  - CG2.O1 – Demonstrate key concepts in business disciplines
  - CG2.O2 – Use technology to analyze relevant data
- G3. To Be Good Decision Makers
  - CG3.O1 – Identify key factors for decision making
  - CG3.O2 – Analyze alternative solutions and make a decision
- G4. To Be Good Citizens
  - CG4.O1 – Identify ethical concepts

In addition, all Management Information Systems Majors will demonstrate basic knowledge of Management Information Systems theories and an understanding of how to apply concepts correctly.

General Requirements

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Curriculum Program</td>
<td>42</td>
</tr>
<tr>
<td>(<a href="http://catalog.tamucc.edu/undergraduate/university-college/programs/core-curriculum-program/">http://catalog.tamucc.edu/undergraduate/university-college/programs/core-curriculum-program/</a>)</td>
<td></td>
</tr>
<tr>
<td>First-Year Seminars (when applicable)¹</td>
<td>0-2</td>
</tr>
<tr>
<td>Business Core</td>
<td>45</td>
</tr>
<tr>
<td>Management Information Systems Major Requirements</td>
<td>24</td>
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<tr>
<td>Electives</td>
<td>9</td>
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</tbody>
</table>

Full-time, first time in college students are required to take the first-year seminars.
- UNIV 1101 University Seminar I (1 sch)
- UNIV 1102 University Seminar II (1 sch)

Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNIV 1101</td>
<td>University Seminar I</td>
<td>1</td>
</tr>
<tr>
<td>UNIV 1102</td>
<td>University Seminar II</td>
<td>1</td>
</tr>
</tbody>
</table>

Core Curriculum Program
University Core Curriculum | 42

Business majors are required to complete the following courses as part of their University Core Curriculum Program:
- ECON 2301 Macroeconomics Principles
- MATH 1324 Mathematics for Business and Social Sciences

Business Core

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 2301</td>
<td>Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 2302</td>
<td>Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BLAW 3310</td>
<td>Legal Environment of Business</td>
<td>3</td>
</tr>
<tr>
<td>ECON 2302</td>
<td>Microeconomics Principles</td>
<td>3</td>
</tr>
<tr>
<td>FINA 3310</td>
<td>Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1325</td>
<td>Calculus for Business &amp; Social Sciences</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 3310</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 3315</td>
<td>Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 4388</td>
<td>Business Strategy</td>
<td>3</td>
</tr>
<tr>
<td>MISY 2305</td>
<td>Computer Applications in Business</td>
<td>3</td>
</tr>
<tr>
<td>MISY 3310</td>
<td>Management Information Systems Concepts</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 3310</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>OPSY 4314</td>
<td>Operations Management</td>
<td>3</td>
</tr>
<tr>
<td>ORMS 3310</td>
<td>Data Analysis and Statistics</td>
<td>3</td>
</tr>
</tbody>
</table>

International Business Course
Select one of the following depending on major:
- ACCT 3315 Multinational Entities: Accounting and Consolidations (for Accounting Major) ³,⁴
- ECON 3315 International Economic Issues (for Business Economics Major)
- FINA 4315 International Finance (for Finance Major)
- MGMT 4315 Multinational Management (for Management Major)
- BUSI 4310 International Business (for all other Majors)

Management Information Systems Major Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Misy 3320</td>
<td>Business Data Communication and Networking</td>
<td>3</td>
</tr>
<tr>
<td>Misy 3330</td>
<td>Database Management</td>
<td>3</td>
</tr>
<tr>
<td>Misy 3340</td>
<td>Systems Analysis and Design</td>
<td>3</td>
</tr>
<tr>
<td>Misy 3350</td>
<td>Business Applications Development</td>
<td>3</td>
</tr>
<tr>
<td>Misy 4330</td>
<td>Website Development for Business</td>
<td>3</td>
</tr>
<tr>
<td>Misy 4375</td>
<td>IT Project Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Management Information Systems Electives
Select 6 hours from the following:
- Misy 4340 Electronic Commerce Management
- Misy 4350 Business Intelligence and Analytics
- Misy 4365 Data Mining for Business Intelligence
- Misy 4390 Current Topics in Management Information Systems
- Misy 4396 Directed Individual Study
MISY 4398 Internship in Management Information Systems

Electives
Upper-level Business Elective 3
Business Elective 3
Non-Business or Business Elective 3
Total Hours 122

1
Higher level mathematics course may be accepted as a substitute with approval.

2
All Business Majors and Minors must complete BUSI 0011 COB Orientation (0 sch) before or during their first semester enrolled in upper-division Business courses.

3
ACCT 3315 Multinational Entities: Accounting and Consolidations (3 sch) may be taken as either International Business Course or as an Accounting Elective but not both.

* Online offering
^ Blended offering

Note:
Course prerequisites are strictly enforced.

Course Sequencing

First Year
Fall
BUSI 0011 COB Orientation 0
Creative Arts Core Requirement 3
ECON 2301 Macroeconomics Principles 3
HIST 1301 U.S. History to 1865 3
Life & Physical Science Core Requirement 3
UNIV 1101 University Seminar I 1
ENGL 1301 Writing and Rhetoric I 3

Hours 16

Spring
COMM 1311 Foundation of Communication 3
HIST 1302 U.S. History Since 1865 3
ECON 2302 Microeconomics Principles 3
Language, Philosophy & Culture Core Requirement 3
MATH 1324 Mathematics for Business and Social Sciences 3
UNIV 1102 University Seminar II 1

Hours 16

Second Year
Fall
ACCT 2301 Financial Accounting 3
Business Elective 3
Component Area Option Core Requirement 3
MATH 1325 Calculus for Business & Social Sciences 3

Hours 16

Third Year
Fall
ACCT 2302 Managerial Accounting 3
Component Area Option Core Requirement 3
Life & Physical Science Core Requirement 3
MISY 2305 Computer Applications in Business 3
POLS 2306 State and Local Government 3

Hours 15

Spring
ORMS 3310 Data Analysis and Statistics 3
BLAW 3310 Legal Environment of Business 3
MISY 3310 Management Information Systems Concepts 3
MISY 3330 Database Management 3
MISY 3340 Systems Analysis and Design 3

Hours 15

Fourth Year
Fall
MGMT 3310 Principles of Management 3
OPSY 4314 Operations Management 3
MISY 4330 Website Development for Business 3
International Business Course 3
MGMT 3315 Business Communications 3

Hours 15

Spring
MISY 4375 IT Project Management 3
MISY Elective 3
Upper Level Business Elective 3
MGMT 4388 Business Strategy 3
Non Business Elective 3

Hours 15

Total Hours 122

Courses

MISY 2305 Computer Applications in Business
3 Semester Credit Hours (3 Lecture Hours)
Survey of modern business computer hardware, software, and applications. Opportunities to create programs and use existing application software to solve various management information technology-oriented problems. Emphasizes the end-user's perspective, and interactions with management information technology.

TCCNS: BCIS 1305
MISY 3310 Management Information Systems Concepts
3 Semester Credit Hours (3 Lecture Hours)
Provides an understanding of the importance of computer-based information in the success of the firm. Illustrates ways in which companies utilize computer systems to strategically compete within certain industries. Emphasis is on the role of information systems within each of the functional areas of business. Major concepts include data management, decision support, and management information systems.
Prerequisite: BUSI 0011 and MISY 2305.

MISY 3320 Business Data Communication and Networking
3 Semester Credit Hours (3 Lecture Hours)
Characteristics of contemporary business data communication components, their configurations, and their impact on management information systems design. Topics include designing, managing, securing, and implementing business data communication networks, and their integration into management information systems. Exercises and assignments use various data communication facilities.

MISY 3330 Database Management
3 Semester Credit Hours (3 Lecture Hours)
Concepts and methodology of database planning, design, development, and management of the computerized database of a management information system. The emphasis is on logical database design and a study of hierarchical, network, and relational implementations. Normalization exercises are completed relative to the logical design of relational data bases. Exercises and assignments use a relational DBMS package.

MISY 3340 Systems Analysis and Design
3 Semester Credit Hours (3 Lecture Hours)
Develops ability to analyze an existing information system within an organization, to identify information requirements, and to specify the functions of a new information system. Includes cost/benefit analysis of proposed information systems. Exercises and assignments use a Computer Aided Software Engineering (CASE) tool.

MISY 3350 Business Applications Development
3 Semester Credit Hours (3 Lecture Hours)
This course introduces students to the fundamental techniques used in the development and programming of software applications. This course is designed for students who have little or no previous computer programming experience. This course will use a scripting and/or visual development programming language.

MISY 3360 Decision Modeling in Business
3 Semester Credit Hours (3 Lecture Hours)
Introduction to prescriptive analytic tools and techniques that can be used to analyze business decision problems and create business value. Topics may include linear programming, decision analysis, transportation and network modeling, inventory planning, queuing analysis, and simulation modeling. Students will have a hands-on learning experience with software such as Excel Solver to develop models and solve them. The applications could be from all functional areas.
Prerequisite: MISY 2305 and ORMS 3310.

MISY 4320 Predictive Analytics
3 Semester Credit Hours (3 Lecture Hours)
Predictive analytics involves extracting useful information from historical data to help predict the future outcomes of business decisions. Students will be introduced to the stages of the data analytics lifecycle and the various methods of predictive modeling for business.
Prerequisite: ORMS 3310.

MISY 4330 Website Development for Business
3 Semester Credit Hours (3 Lecture Hours)
This course provides an understanding of the principles and techniques for client-side web development using HTML and CSS. Text editors and the website development software will be used to create and maintain websites. This course includes designing to meet web standards, including accessibility, usability, and workflow for web design.

MISY 4340 Electronic Commerce Management
3 Semester Credit Hours (3 Lecture Hours)
A broad overview of electronic commerce topics as they relate to various users. General coverage includes electronic commerce history, opportunities, limitations, and risks. Technical discussions include the internet, intranets, extranets, firewalls, security, protocols, servers, and browsers.

MISY 4350 Business Intelligence and Analytics
3 Semester Credit Hours (3 Lecture Hours)
Overview of important concepts of business intelligence, and the use of analytics, technologies, applications and processes used by organizations to gain data-driven insights. These insights and predictions can be used to aid decision-making and performance management across functional areas, including marketing, operations, and finance. Students will learn to extract and manipulate data, and create reports, scorecards and dashboards, including mobile apps. ONLY Juniors or Post-Baccalaureate or Seniors for MISY 4350

MISY 4360 Big Data Analytics
3 Semester Credit Hours (3 Lecture Hours)
This course is designed to provide a basic understanding of what big data analysis entails. The course intends to familiarize students with big data analysis as a tool for addressing substantive research questions. The course includes practical exercises to provide students with hands-on experience in handling and analyzing large, complex, and unstructured data.
Prerequisite: ORMS 3310, MISY 3330 and 4350.

MISY 4365 Data Mining for Business Intelligence
3 Semester Credit Hours (3 Lecture Hours)
In the information age, organizations can and do collect massive amounts of data. Yet organizations are often "data rich" but "information and knowledge poor". This course is designed to prepare business professionals who, by using analytical methods and data mining and data visualization tools will be able to harness the potential of data by extracting business intelligence that can be used to improve decisions and operations at various points in the value chain.
Prerequisite: MISY 2305, 3330 and 4350.

MISY 4375 IT Project Management
3 Semester Credit Hours (3 Lecture Hours)
This course covers issues related to managing projects in organizations. The course focuses on the management of projects and working as a team. Students are expected to draw on materials from other management information systems courses, especially the System Analysis and Design, and Database Management courses.
Prerequisite: MISY 3330.

MISY 4390 Current Topics in Management Information Systems
1-3 Semester Credit Hours (1-3 Lecture Hours)
Selected topics for special study related to management information systems.

MISY 4396 Directed Individual Study
1-3 Semester Credit Hours
Individual supervised study and a final report.
MISY 4398  Internship in Management Information Systems
1-3 Semester Credit Hours
Supervised practical experience in business computer systems.