BUSINESS ANALYTICS

MINOR
A minor must contain 15-18 semester hours of coursework, including at least 9 hours of upper-division courses at the 3000-4000 level. Courses taken to satisfy Core Areas A through E may not be counted toward completion of the minor, but courses taken in Core Area F may be used to fulfill minor requirements.

FOR BUSINESS MAJORS
The Business Analytics minor offers business majors the opportunity to master the ever-growing fields of business analytics, data mining, and database management systems. This minor provides business students with experience in business processes through simulations to prepare for jobs in information security, computer systems analysis, management or financial analysis. Students learn underlying trends in Big Data to improve organizations' growth and profitability.

Required Courses*

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>BUSA 3532</td>
<td>Bus Analytics/Data Mining</td>
<td>3</td>
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<tr>
<td>LSCM 4255</td>
<td>Business Process Simulations</td>
<td>3</td>
</tr>
<tr>
<td>MGIS 3356 or MGIS 4360</td>
<td>Database Management Systems (*) or Databases:Big Data &amp; Analytics</td>
<td>3</td>
</tr>
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*Non-MGIS Majors should take MGIS 3356. MGIS Majors are required to take MGIS 4360.

Elective Courses*

Select two elective courses the student is qualified to take: 6

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<thead>
<tr>
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<tbody>
<tr>
<td>ACCT 3600</td>
<td>Accounting Information Systems</td>
<td></td>
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<tr>
<td>ECON 4101</td>
<td>Applied Econometrics</td>
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<tr>
<td>LSCM 4253</td>
<td>Integrated Material/Supply Chn</td>
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<td>MGIS 3352</td>
<td>Management Application Prog I</td>
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<td>MGIS 3353</td>
<td>Management Applications Programming II</td>
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<tr>
<td>MGIS 4360</td>
<td>Databases:Big Data &amp; Analytics</td>
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* Grade of C or higher required.

**For Non-MGIS majors only.

Total Hours 15

FOR NON-BUSINESS MAJORS

The Business Analytics minor for non-business majors provides students with concentrated training in data analytics. The goal of the minor is to teach key skills of data mining, simulation, database, to non-business majors. In addition the focus is on optimization to both understand and recognize the opportunities created with analytics for improving business decision-making.

Some business courses available as electives may require prerequisites beyond what a student is required to take for the minor. Students choosing this minor are encouraged to meet with your Wright School of Business (WSOB) academic advisor prior to course selection and registration. Contact our WSOB Professional Advisor at bizadvisor@daltonstate.edu.

Required Courses

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<td>BUSA 3532</td>
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<td>MGIS 3356</td>
<td>Database Management Systems (*)</td>
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<td>3</td>
</tr>
</tbody>
</table>

*Non-ITEC Majors should take MGIS 3356. ITEC Majors are required to take MGIS 4360.

**For Non-ITEC majors only.

Total Hours 15

Accounting Courses

ACCT 2101. Principles of Accounting I. 3-0-3 Units.
Examines the underlying theory and application of accounting concepts for reporting financial information to outside users. Stress the relationship between the rules by which financial statements are prepared and the use of financial information for decision making. (F (Day & Evening), S (Day & Evening), M (Day))
Prerequisites: MATH 1101 or 1111 with a 'C' or better.

ACCT 2102. Principles of Accounting II. 3-0-3 Units.
Examines the underlying theory and application of managerial accounting concepts. Stress the study of financial and non-financial information for use by internal decision makers and the role of managerial accounting in a business environment. (F (Day & Evening), S (Day & Evening), M (Day))
Prerequisites: ACCT 2101 with a 'C' or better.

ACCT 3100. Intermediate Accounting I. 3-0-3 Units.
Studies the concepts and standards for presentation and disclosure of general purpose financial statements in accordance with GAAP. The focus is on financial statement analysis and the theory and issues related to measurement of assets. (F (Day & Evening))
Prerequisites: Upper Division Eligibility, ACCT 2101, ACCT 2102 both with a 'C' or better.

ACCT 3200. Intermediate Accounting II. 3-0-3 Units.
Focuses on theory and issues related to recognition and measurement of liabilities, stockholders’ equity, and other issues related to financial reporting. (S (Day & Evening))
Prerequisites: Upper Division Eligibility, ACCT 3100 with a ‘C’ or better.

ACCT 3300. Tax Accounting & Reporting I. 3-0-3 Units.
Examines the federal taxation of individuals and taxation of property transactions. Tax research and ethics and responsibilities for accounting professionals are also introduced. (F (Day & Evening))
Prerequisites: Upper Division Eligibility, ACCT 2101, ACCT 2102, both with a ‘C’ or better.

ACCT 3500. Forensic Accounting. 3-0-3 Units.
A study of the various techniques for preventing, detecting, investigating and resolving occupational fraud. (M (Evening))
Prerequisites: Upper Division Eligibility; ACCT 2101 with a ‘C’ or better.
ACCT 3600. Accounting Information Systems. 3-0-3 Units.
The course will also introduce students to computerized accounting information systems such as SAP. Other major topics covered will include internal controls, enterprise risk management, big data in accounting, forensic techniques, and auditing through an AIS. Students will learn to solve accounting problems and perform data analytics using spreadsheet, database, and visualization applications such as Excel, Access, and Power BI. (S (Online))
Prerequisites: Upper Division Eligibility and ACCT 3100 with a C or better.

ACCT 3800. Understanding Financial Stated. 3-0-3 Units.
This course focuses on the understanding, interpreting, and analyzing of financial statements for corporations, local governments, and nonprofit organizations. (F, S, M)
Prerequisites: Upper Division Eligibility, ACCT 2102 with a 'C' or better.

ACCT 4100. Advanced Accounting. 3-0-3 Units.
Examines special types of transactions and their effect on financial statement presentation. The focus is on business combinations, foreign currency transactions, and other advanced financial reporting topics. (F (Day), S (Evening), M (Online))
Prerequisites: Upper Division Eligibility, ACCT 3200 with a 'C' or better.

ACCT 4200. Govt/Nonprofit Accounting. 3-0-3 Units.
Focuses on the concepts and standards for presentation and disclosure of financial statements for governmental entities and nongovernmental not-for-profit entities. (M (Online))
Prerequisites: Upper Division Eligibility, ACCT 3100 with a 'C' or better.

ACCT 4300. Tax Accounting & Reporting II. 3-0-3 Units.
Explores the federal taxation of business entities, including C corporations, partnerships, S corporations, estates, and trusts. Analyzes the treatment of property transactions within these entities. (S (Evening))
Prerequisites: Upper Division Eligibility, ACCT 3300 with a 'C' or better.

ACCT 4400. Cost Accounting. 3-0-3 Units.
Focuses on planning, budgeting, performance measures and cost measures in the corporate environment. (S (Online))
Prerequisites: Upper Division Eligibility, ACCT 2101, ACCT 2102 both with a 'C' or better.

ACCT 4700. Independent Study in Acct. 0-0-3 Units.
Supervised in-depth individual research and study of one or more current topics in Accounting in conjunction with an associated major project. Students will be required to prepare a formal report and presentation of the research topic and project. (F, S, M)
Prerequisites: Upper Division Eligibility, ACCT 3200 with a 'C' or better.

ACCT 4701. Auditing and Attestation. 3-0-3 Units.
Examines auditing procedures, standards, and other attestation issues. (F (Online))
Prerequisites: Upper Division Eligibility, ACCT 3200 with a 'C' or better.

ACCT 4800. Special Topics in Accounting. 3-0-3 Units.
Examines current, relevant topics in the field of Accounting. Each special topic course will cover a new current topic. (F, S, M)
Prerequisites: Upper Division Eligibility, ACCT 3100 with a 'C' or better.

ACCT 4900. Accounting Internship. 0-0-3 Units.
Provides students with on-site work experience in Accounting through a coordinated academic internship experience with a pre-approved employer. A portfolio chronicling the work experience, a project relating relevant academic literature to the Accounting internship experience, and a final presentation encompassing the entire internship experience are required to receive academic credit. (F, S, M)
Prerequisites: Upper Division Eligibility, ACCT 3100 (Grade 'C' or Better), plus an additional 3 credit hours of upper division ACCT, and 3 credit hours of any upper division business course with a 'C' or better.

Business Administration Courses

BUSA 2106. The Environment of Business. 3-0-3 Units.
Introduces the political, social, legal, ethical, environmental, and technological issues that affect or are affected by business decisions. Topics include stakeholder analysis, social responsibility, ethics, globalization, business-government relations, and fair trade. (F (Day & Evening), S (Day & Evening))
Prerequisites: Upper Division Eligibility, ACCT 2102 with a 'C' or better.

BUSA 2201. Fundamentals of Computer Appli. 3-0-3 Units.
Assures a basic level of computer applications literacy to include spreadsheet, database, word processing, and presentation software. (F (Day & Evening), S (Day & Evening), M (Online))
Prerequisites: MATH 1101 or higher.

BUSA 2850. Business Statistics. 3-0-3 Units.
Emphasizes applications of statistics in business. Topics include methods of presenting data, numerical measures and correlation, probability theory and probability distributions, sampling distributions, estimation, hypothesis testing, and linear regression. Microsoft Excel is an integral part of the course and is used in all aforementioned topics. (F (Day & Evening), S (Day & Evening), M (Online))
Prerequisites: BUSA 2201, MATH 2181 (or concurrent).

BUSA 3000. Environmental Law and Policy. 3-0-3 Units.
Survey of national and state agencies and provisions of environmental laws and ordinances at all levels of government, including NEPA, Endangered Species Act, Clean Water Act, Clean Air Act and CERCLA. This course has a web component.
Prerequisites: Upper Division Eligibility.

BUSA 3050. Business Statistics. 3-0-3 Units.
Emphasizes applications of statistics in business. Topics include methods of presenting data, numerical measures and correlation, probability theory and probability distributions, sampling distributions, estimation, hypothesis testing, and linear regression. (F, S)
Prerequisites: MATH 2181 or concurrent, Upper Division eligibility.

BUSA 3055. Quantitative Analysis Bus Prob. 3-0-3 Units.
Develops analytical skills for business decision making using Microsoft Excel. Topics include time-series forecasting, profit models, optimization, simulation and decision analysis. Excel is used in all of the aforementioned topics extensively. (F (Day & Evening), S (Day & Evening))
Prerequisites: Upper Division Eligibility and BUSA 2850.

BUSA 3060. Business Law. 3-0-3 Units.
Covers the source of law and courts, and introduces tort law along with the historical, economic, political and ethical considerations in business and the impact of regulatory and administrative law on business. Topics include property law, contracts, and environmental issues. (F (Day & Evening), S (Day))
Prerequisites: Upper Division Eligibility.
BUSA 3070. Business Ethics. 3-0-3 Units.
Defines ethics, explores models of personal ethics, and reviews ethics in a variety of professional fields. In addition the course examines the relationship between business ethics and corporate social responsibility. Topics include corporate governance, trust and honesty in business, the role of ethics in managerial decision-making and behavior, the ethical use of information, and international ethics. (F (Day), S (Day & Evening)) Prerequisites: Upper Division Eligibility.

BUSA 3301. Business Communications. 3-0-3 Units.
This course is designed to prepare students to write and speak in a variety of business settings; to communicate effectively with business audiences by addressing strategic issues such as crisis communication, management of communication programs in a social media environment; communication skills with new technologies; and building key strategic and interpersonal relationships in business. The course also emphasizes basic skills in report writing and researching for sources, as well as writing effective business memos. (F (Day & Evening), S (Day & Evening), M (Day)) Prerequisites: BUSA 2106, COMM 1110, and ENGL 1102

BUSA 3351. International Business. 3-0-3 Units.
This course provides a broad overview of international business and trade, and the impact of the international business environment on management decisions. Topics of the course include international business basics such as trade, barriers to trade, and the relationship between international business and international relations; effects of international business decisions on culture, political, legal, and economic forces; effects of government intervention and the role of social and economic aid organizations. (F (Day & Online), S (Day & Evening)) Prerequisites: Upper Division Eligibility, ECON 2105 or ECON 2106, both with a 'C' or better.

BUSA 3360. Business Negotiation Skills. 3-0-3 Units.
Students will develop the negotiation skills needed to produce more creative and satisfying agreements and avoid the worst kind of compromises. The class will focus on using theory and negotiation simulation exercises as the primary pedagogical tool. (F (Day), S (Evening)) Prerequisites: Upper Division Eligibility and BUSA 3301 with a 'C' or better.

BUSA 3400. Quantitative Theory/Tech Mngt. 3-0-3 Units.
This is a one-semester course covering techniques, methods and applications of differential and integral calculus. As the name indicates, this course deals with calculus and its applications, especially those concerned with business and social sciences. Topics to be discussed will include: differentiation and anti-differentiation of algebraic, exponential, and logarithmic functions; applications of differentiation and integration; and functions of two variables. This course is not open to BBA students and will not count toward a BBA. A grade of C or higher is required for this course to count toward graduation in the BAS program. (As Needed) Prerequisites: Earned AAS, AAT or equivalent from a regionally accredited institution is required.

BUSA 3532. Bus Analytics/Data Mining. 3-0-3 Units.
The course introduces students to business analytics and data mining. Topics include introduction to business analytics, data visualization, data transformation, cluster analysis, association analysis, decision trees, logistics regression, neural network and model performance evaluation. (S (Evening)) Prerequisites: Upper Division Eligibility, BUSA 2850 or MATH 2200 both with a 'C' or better.

BUSA 3700. Business Admin Internship. 0-0-0 Units.
Provides students with on-site work experience in Business Administration through an internship experience with a pre-approved employer. This is a non-credit course. (F, S, M) Prerequisites: Upper Division Eligibility and approval from internship faculty advisor.

BUSA 3701. Prof Development Seminar. 1-0-1 Unit.
This class is designed to aid students in transitioning from the academic world to a professional business work environment. It will provide students with experience in applying for jobs, interviewing, networking, and business etiquette as well as expose them to other relevant and timely topics for advancing in the business world. (F (Day), S (Day)) Prerequisites: Upper Division Eligibility and BUSA 3301 with a 'C' or better.

BUSA 4700. Senior Seminar. 1-0-1 Unit.
Features the practices and administration of business, as well as the preparation needed for success in the job market. Topics include resume writing, interviewing skills, and personal financial management. (F, S) Prerequisites: Upper Division eligibility.
Corequisites: MNGT 4701.

BUSA 4800. Special Topics in Business. 1-0-1-4 Unit.
Examines current, relevant topics. Each special topics course will cover a new current topic. (F, S, M) Prerequisites: Upper Division Eligibility.

BUSA 4851. Spec Topics International Bus. 3-0-3 Units.
This course focuses on the business issues corporations face when doing business internationally, specifically focusing on doing business in the country visited. Course includes an international study abroad experience. Topics include culture, general business comparisons, international business issues, and cross-cultural communication. Prerequisites: Upper Division Eligibility and BUSA 3351 with a ‘C’ or better.

BUSA 4900. Business Internships. 0-0-3 Units.
Provides students with on-site work experience in Business through a coordinated academic internship experience with a pre-approved employer. A portfolio chronicling the work experience, a project relating relevant academic literature to the Business internship experience, and a final presentation encompassing the entire internship experience are required to receive academic credit. (F, S, M) Prerequisite(s): Upper Division Eligibility and 9 credit hours of upper division in ACCT, BUSA, MARK, MGIS, MNGT, or OPMT of which 3 credit hours must be in BUSA; and all with a ‘C’ or better.

Economics Courses

ECON 2105. Principles of Macroeconomics. 3-0-3 Units.
Describes and analyzes macroeconomic principles. Topics covered include the scope and method of economics, national income/output analysis, employment/unemployment, inflation, fiscal policy, monetary policy, and international finance. (F (Day & Evening), S (Day & Evening), M (Day)) Prerequisites: MATH 1101 or 1111 with a grade of ‘C’ or better.

ECON 2106. Principles of Microeconomics. 3-0-3 Units.
Describes and analyzes microeconomic principles. Topics covered include demand and supply theory, output and price determination, market structure, income distribution, government regulation of business, labor organizations, and international trade. (F (Day & Evening), S (Day & Evening), M (Day)) Prerequisites: MATH 1101 or 1111 with a grade of ‘C’ or better.
ECON 3109. Managerial Economics. 3-0-3 Units.
Economics is frequently described as the science of decision-making under scarcity (at any given time we want more things than we can obtain, given available resources) and this is a good description of the subject of this course. Students will apply economic tools and basic statistics to solve managerial problems faced by entrepreneurs, managers and government regulators. Typical topics include demand analysis and estimation, consumer theory, cost functions, market structures and other microeconomic subject. (S (Day), M (Day))
Prerequisites: Upper Division Eligibility, ECON 2105, ECON 2106, both with a ‘C’ or better.

ECON 3110. International Trade. 3-0-3 Units.
An introduction to international trade, with a focus on comparative advantage and gains from trade. Covers conventional trade models, trade policy with a focus on tariffs and quotas, measurement of a nation’s balance of payments, foreign exchange rate determination, and operation of the international monetary system, and global organizations such as the World Trade Organization (WTO) and trade agreements such as the North American Free Trade Agreement (NAFTA). (As Needed)
Prerequisites: Upper Division Eligibility, ECON 2105 (concurrent), ECON 2106, both with a ‘C’ or better.

ECON 3112. Money and Banking. 3-0-3 Units.
Presents a comprehensive upper-level course in financial institutions, financial markets, bank management, and money and banking. This introduction to the operation of the US financial system describes the US financial institutions, instruments and markets; explains how the financial system interacts with the rest of the economy; and considers how the system changes through time. (F (Day))
Prerequisites: Upper Division Eligibility and ECON 2105 with a ‘C’ or better.

ECON 4101. Applied Econometrics. 3-0-3 Units.
Standard econometric techniques are applied to various topics in economics. Techniques include models for cross-section data, such as limited dependent variable models, selectivity techniques, count data models, and models for panel data. Students will conduct statistical analyses and model evaluation. (S (Day))
Prerequisites: Upper Division Eligibility, BUSA 2050, BUSA 2850, BUSA 3050, or MATH 2200, all with a ‘C’ or better.

ECON 4700. Independent Study Economics. 0-0-3 Units.
Supervised, in-depth individual research and study of one or more current topics in economics in conjunction with an associated major project. Students will be required to prepare a formal report and presentation of the research topic and project. (F, S, M)
Prerequisites: Upper Division Eligibility, ECON 2105, ECON 2106, both with a ‘C’ or better.

ECON 4800. Special Topics in Economics. 3-0-3 Units.
Examines current, relevant topics in field of Economics. Each special topics course will cover a new current topic. (F, S, M)
Prerequisites: Upper Division Eligibility.

ECON 4900. Economics Internships. 0-0-3 Units.
Provides students with on-site work experience in economics through a coordinated academic internship experience with a pre-approved employer. A portfolio chronicling the work experience, a project relating relevant academic literature to the economic internship experience, and a final presentation encompassing the entire internship experience are required to receive academic credit. (F,S,M)
Prerequisites: Upper Division Eligibility, FINC 3056 (Grade ‘B’ or Better), plus an additional 3 credit hours of upper division FINC or ECON, and 3 credit hours of any upper division business course, all with a ‘C’ or better.

Logistics Supply Chain Mnng Courses

LSCM 3251. Principles of Supply Chain Mng. 3-0-3 Units.
Introduces students to an organization’s resources and processes in its efforts to create products or services. The set of resources planned and managed includes the work force, equipment, materials and information. Topics include coverage of operations strategy and managing change, product design, process selection and planning, and controlling the supply chain. (F (Day & Evening), S (Day & Evening), M (Online))
Prerequisites: Upper Division Eligibility and BUSA 2850 with a ‘C’ or better.

LSCM 3257. Object Oriented Programming. 3-0-3 Units.
Uses structured programming language for problems related to supply chain management. Emphasis is placed upon development of remote execution programming through LAMP paradigm. Topics include integrated use of operating systems, specialized server software, database and object oriented programming languages applied to problems related to supply chain management. (As Needed)
Prerequisites: Upper Division Eligibility and BUSA 2201 with a ‘C’ or better.

LSCM 4253. Integrated Material/Supply Chn. 3-0-3 Units.
Examines the technology, tools, and practices of modern integrated materials sourcing and logistics. Topics include distribution requirements planning, continuous replenishment, just-in-time, and efficient replenishment. (S (Evening))
Prerequisites: Upper Division Eligibility and LSCM 3251 with a ‘C’ or better.

LSCM 4255. Business Process Simulations. 3-0-3 Units.
Covers the basic techniques for computer simulation modeling and analysis of business processes in manufacturing and service industries. Course emphasis is on conceptualizing abstract models of real-world systems (for example, inventory or queuing systems), implementing simulations in Excel and special purpose software (ProModel), production planning and control simulation studies, experimental design, and analyzing simulation output. (F (Online))
Prerequisites: Upper Division Eligibility, BUSA 3055, LSCM 3251 both with a ‘C’ or better.

LSCM 4256. Application Programming SCM. 3-0-3 Units.
Examines the technology, tools, and practices of modern integrated materials sourcing and logistics. Topics include distribution requirements planning, continuous replenishment, just-in-time, and efficient replenishment. (S (Evening))
Prerequisites: Upper Division Eligibility and BUSA 2850 with a ‘C’ or better.

LSCM 4288. Logistics. 3-0-3 Units.
Examines the fundamental elements of channel systems and various institutions that utilize such systems. Distribution models that describe different industries will be investigated. These models will include ways to assess the legal environment and how price is impacted by channel relationships. (F (Evening))
Prerequisites: Upper Division Eligibility and LSCM 3251.

LSCM 4503. Quality Management Systems. 3-0-3 Units.
Examines the continuous quality management and improvement philosophy. Topics include strategic management, quality assessment, teams, the role of leadership, lean manufacturing, tools for improving, quality processes, techniques for charting attribute and variable data, Statistical Process Control, Six-Sigma, and lean manufacturing. (F (Day), S (Evening))
Prerequisites: Upper Division Eligibility, MNGT 3051 and LSCM 3251, both with a ‘C’ or better.
LSCM 4580. Supply Chain Management System. 3-0-3 Units.
Covers the major components of supply chain management systems that support the major supply chain activities such as planning, sourcing, production, material flow, inventory management, and delivery. Students will have hands-on experience with a commercial-grade supply chain management system.
Prerequisites: Upper Division Eligibility, BUSA 3055, MARK 3010, MGIS 3351 and LSCM 3251.

LSCM 4700. Independent Study LSCM. 0-0-3 Units.
Supervised, in-depth individual research and study of one or more current topics in Logistics and Supply Chain Management in conjunction with an associated major project. Students will be required to prepare a formal report and presentation of the research topic and project. (F, S, M)
Prerequisites: Upper Division Eligibility and LSCM 3251 with a 'C' or better.

LSCM 4701. Global Strat Supply Chain Mngt. 3-0-3 Units.
This course will provide students with current and emerging textbook theories about global SCM strategies along with participation in a cumulative live case study experience for the Operations and Supply Chain Management Major. Students will use the knowledge gained in the previous courses in Logistics and Supply Chain Management to develop operational strategies for business applications. The case project will allow students to solve practical problems at a manufacturing/service firm with faculty supervision. Student teams will address significant operational problems and identify improvement opportunities. Teams will write recommendation/implementation reports, oversee pilot/full-scale implementations when feasible, and make presentations of their work to faculty and members of the companies involved. (S (Evening))
Prerequisites: Upper Division Eligibility, have completed 9 hours of upper division coursework, completed or concurrently taking LSCM 4253, and LSCM 4288.

LSCM 4800. Special Topics LSCM. 3-0-3 Units.
Examines current, relevant topics in the field of Logistics and Supply Chain Management. Each special topics course will cover a new current topic. (F, S, M)
Prerequisites: Upper Division Eligibility and LSCM 3251 with a 'C' or better.

LSCM 4900. LSCM Internship. 0-0-3 Units.
Provides students with on-site work experience in Logistics and Supply Chain Management through a coordinated academic internship experience with a pre-approved employer. A portfolio chronicling the work experience, a project relating relevant academic content to the Operations Management internship experience, and a final presentation encompassing the entire internship experience are required to receive academic credit. (F,$S,M)
Prerequisites: Upper Division Eligibility, LSCM 3251 (Grade of 'B' or Better), plus an additional 3 credit hours of upper division MNGT or LSCM, and 3 credit hours of any upper division business course, all with a 'C' or better.

Management Information Systems Courses
MGIS 3351. Principles Mgmt Info Systems. 3-0-3 Units.
Covers essential business aspects of information systems such as networks, databases, the Internet, management reporting, software development, computer hardware, and information ethics. The course also examines the use of information systems for managerial decision-making and for gaining strategic advantage. Students will utilize basic programming concepts to develop a small application. (F (Day & Evening), S (Day & Evening), M (Online))
Prerequisites: Upper Division Eligibility and BUSA 2201 with a 'C' or better.

MGIS 3352. Management Application Prog I. 3-0-3 Units.
Develops a knowledge of language and file structures for computer-based business applications using a major business procedural-oriented programming language. Students will write computer programs on individual and/or team projects. (F (Evening))
Prerequisites: Upper Division Eligibility and BUSA 2201 with a 'C' or better.

MGIS 3353. Management Applications Programming II. 3-0-3 Units.
Emphasizes top-down design, structured techniques, testing and modularity. Emphasis placed on development of correct efficient programs that are easy to maintain. Includes problem analysis, problem design, documentation, testing and debugging. Introduces application development using an object-oriented language. (S (Evening))
Prerequisites: Upper Division Eligibility, BUSA 2201 and MGIS 3352, both with a 'C' or better.

MGIS 3354. Telecommunications Management. 3-0-3 Units.
Provides an understanding of telecommunications and data communications technologies, voice communications and data networks, protocols, standards and management. Topics include transmission media, data communications, and voice and data technology. (F (Evening))
Prerequisites: Upper Division Eligibility and MGIS 3351 or concurrent.

MGIS 3356. Database Management Systems. 3-0-3 Units.
Focuses on the use of database systems in business to support information systems and decision-making. Topics include database concepts, data modeling, database design and development, administration of database systems, and database technologies. Students will have hands-on experience developing a database application. (F (Evening))
Prerequisites: Upper Division Eligibility; Corequisite: MGIS 3351.

MGIS 3390. Management of IS Security. 3-0-3 Units.
Provides a managerial overview of IS security and basic IS security principles while examining operational, technical, and administrative aspects of the topic. This course enables students to improve their IS security management skills and software proficiencies through a thorough investigation of the major concepts and techniques used in enterprise architecture and IS security. It also covers much of the common Body of Knowledge of the CISSP Exam. (F (Evening))
Prerequisites: Upper Division Eligibility and MGIS 3351 with a 'C' or better.

MGIS 4358. Web-based MIS. 3-0-3 Units.
Examines the process of developing business information systems with a significant web component. Topics include organizational considerations involved in developing and maintaining a web-enhanced MIS, and system considerations such as usability and other human-computer-interaction (HCI) issues, general and database web-design principles, and programming of web-enhanced systems. Students will develop a web site for a real or hypothetical organization. (S (Evening))
Prerequisites: Upper Division Eligibility and MGIS 3356; Corequisite: MGIS 3353.

MGIS 4360. Databases:Big Data & Analytics. 3-0-3 Units.
Provides an overview of database management systems for big data and analytics. Topics include an overview of analytics and related data requirements, data modeling, data management and an introduction to prominent types of database systems designed to support big data and analytics. Students will have hands-on experience with various database technologies. (S (Evening))
Prerequisites: Upper Division Eligibility and MGIS 3356 with a 'C' or better.
MGIS 4580. Supply Chain Management System. 3-0-3 Units.
Covers the major components of supply chain management systems that support major supply chain activities such as planning, sourcing, production, material flow, inventory management, and delivery. Students will have hands-on experience with a commercial-grade supply chain management system. (F (Evening))
Prerequisites: Upper Division Eligibility, BUSA 3055, LSCM 3251, MARK 3010, and MGIS 3351, all with a 'C' or better.

MGIS 4700. Independent Study MGIS. 0-0-3 Units.
Supervised, in-depth individual research and study of one or more current topics in MIS in conjunction with an associated major project. Students will be required to prepare a formal report and presentation of the topic research and project. (F, S, M)
Prerequisites: Upper Division Eligibility, and MGIS 3351 with a 'C' or better.

MGIS 4701. Systems Analysis & Design. 3-0-3 Units.
Examines the process of developing business information systems. Topics include requirements analysis and specification, systems modeling, and systems design techniques. Structured and object-oriented tools and techniques are introduced. A major component of the course is the analysis, design and development of a business system as a term project. (S (Evening))
Prerequisites: Upper Division Eligibility, MGIS 3352 and MGIS 3356 (formerly MGIS 4356), both with a 'C' or better.

MGIS 4800. Special Topics in MIS. 3-0-3 Units.
This special topics course for provides an overview of database management systems for big data and analytics. Topics include an overview of analytics and related data requirements, data modeling, data management and an introduction to prominent types of database systems designed to support big data and analytics. Students with have hands-on experience with various database technologies. (F, S, M)
Prerequisites: Upper Division Eligibility and MGIS 3351 with a 'C' or better.

MGIS 4900. Mgmt Info System Internships. 0-0-3 Units.
Provides students with on-site work experience in Management Information Systems through a coordinated academic internship with a pre-approved employer. A portfolio chronicling the work experience, a project relating relevant academic literature to the Information Systems internship experience, and a final presentation encompassing the entire internship experience are required to receive academic credit. (F, S, M)
Prerequisites: Upper Division Eligibility, MGIS 3351 (Grade of 'B' or Better), plus an additional 3 credit hours of upper division MGIS, and 3 credit hours of any upper division business course, all with a 'C' or better.