

# BUSINESS ADMINISTRATION

The department of Business Administration supports the undergraduate programs in the departments of Accounting, Finance, Management and Entrepreneurship, Marketing, Supply Chain Management, and Information Systems and Business Analytics, by providing specialized coursework in orientation to business, and cooperative education opportunities.

## Effective Spring 2022, undergraduate students can pursue a Bachelor of Business Administration (BBA) Degree

**For undergraduate curriculum in business, bachelor of business administration.**

The Department of Management and Entrepreneurship offers an undergraduate bachelor of business administration (BBA) degree. This degree-completer program is a general business degree that is offered online. The BBA is accessible if you have some prior college experience, and is aimed at working professionals with at least 45 college credits. Students will complete the general education requirements (including business foundation courses), business core requirements for the bachelor of business administration (BBA) degree, and 21 additional credits in the major.

The instructional objective of the BBA degree is to learn the foundation in all areas of business, and then through the required and elective upper-level coursework, build out specialized knowledge in specific areas of business to align with your personal and professional interests and include an emphasis on critical management and leadership skills. By enrolling in the BBA program, you will be able to balance full time employment, or other personal commitments, and the completion of a four-year degree in business.

The major-specific coursework targets the following skills:

- Managing projects
- Negotiating and resolving conflicts
- Managing human resources
- Managing the supply chain
- Managing finances
- Managing a global and diverse workforce
- Managing sales and understanding consumer behavior

For more information on the undergraduate bachelor of business administration, please visit: <https://www.ivybusiness.iastate.edu/degree/bba/>

## Student Learning Outcomes

Upon graduation, undergraduate students receiving a bachelors in Business Administration will:

1. Be effective communicators
2. Be effective collaborators
3. Be problem solvers
4. Understand business concepts
5. Recognize ethical and legal responsibilities to organizations

### Curriculum:

**Effective Spring 2022**, the department of Management and Entrepreneurship offers a fully online degree-completer program leading to a general business degree. This degree-completer program consists of 21 credits of coursework in the business administration major, including 9 credit hours of required core courses, and 12 credit hours of electives.

While the General Education Requirements for the Bachelor of Business Administration degree remains the same as all other Business majors, there are specific changes in the following areas that must be completed in order to receive a Bachelor's degree in Business Administration.

### Pre-Professional Program - Foundation: (17)

BUSAD 102	Business Learning Team Orientation	1
BUSAD 103	Orientation	1
COM S 113	Introduction to Spreadsheets and Databases	3
MATH 150	Discrete Mathematics for Business and Social Sciences	3
ECON 101	Principles of Microeconomics	3
	or ECON 102 Principles of Macroeconomics	
STAT 226	Introduction to Business Statistics I *	3
ACCT 284	Financial Accounting	3

### Supporting Courses: (6)

ACCT 215	Legal Environment of Business	3
PHIL 230	Moral Theory and Practice	3

### Electives: (15-18)

Take additional "free" electives to fulfill the minimum graduation requirement of 120 credits.

### Professional Program - Business Core: (27)

ACCT 285	Managerial Accounting #	3
MGMT 310	Entrepreneurship and Innovation	3
FIN 301	Principles of Finance	3
MGMT 371	Organizational Behavior	3
MGMT 372	Responsible Management and Leadership in Business	3
MIS 301	Management Information Systems	3
MKT 340	Principles of Marketing	3
SCM 301	Supply Chain Management	3

Above courses, with exception of MGMT 372, are prerequisites for, and must be taken prior to:

MGMT 478	Strategic Management <sup>^</sup>	3
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### Professional Program - BBA Major Courses: (21)

Required Courses (9 credits):

MIS 340	Project Management	3
MGMT 422	Negotiation and Conflict Resolution	3
MGMT 471	Personnel and Human Resource Management	3

Elective Courses (12 credits):

Choose ONE from each pairing

SCM 424	Process Management, Analysis, and Improvement	3
or SCM 461	Principles of Transportation	

ACCT 383	Intermediate Managerial Accounting	3
or FIN 330	Financial Markets and Institutions	
or FIN 371	Real Estate Principles	

MGMT 414	International Management	3
or MGMT 472	Management of Diversity	

MKT 342	Foundation Of Personal Selling	3
or MKT 447	Consumer Behavior	

\* Transfer coursework may be a substitute for STAT 226 Introduction to Business Statistics I, if approved.

# With the exception of ACCT 285 Managerial Accounting, pre-BBA students cannot take Professional Program - Business Core courses.

<sup>^</sup> Requires completion of all core courses except MGMT 372 plus senior standing.

Students are limited to three business majors/degrees/minors within the Ivy College of Business. This limit is on business majors/degrees/minors only, and does not apply to multiple majors/degrees/minor taken outside the Ivy College of Business.

BBA students cannot double major or earn a double degree in a business area. Online minors outside the Ivy College of Business could be added to the BBA if desired. Consult with an advisor in the Undergraduate Programs Office for assistance in identifying online minor options.

## Graduate Study

The Ivy College of Business offers a professional graduate degree program in business administration, the master of business administration (MBA), which is described below. The college also has

five specialized master degree programs: the master of accounting (MAcc), the master of business analytics (MBS), the master of finance (MFIN), the master of real estate development (MRED), and the master of science in information systems (MSIS). The college also offers a PhD in business and technology, with specializations in entrepreneurship, finance, information systems, management, marketing, and supply chain management. Finally, the Ivy College of Business is a participating member of the following interdepartmental programs: master of science in cyber security, master of engineering management, master of science and PhD in human computer interaction, master of science in seed technology and business, and master of science in transportation.

## Master of Business Administration (MBA)

The Ivy College of Business offers a 48-credit program leading to a non-thesis master of business administration degree with a specialization in accounting, business analytics, finance, information systems, marketing, or supply chain management. The coursework is designed to provide the knowledge, skills, and abilities for managerial success and leadership in organizations. The MBA is the professional management education program for those pursuing careers in business.

Students may enroll in the MBA on either a full-time or part-time basis. The part-time MBA is designed for employed professionals. Part-time MBA classes are held in the evenings in downtown Des Moines.

Students working toward the MBA are required to complete a series of core courses in the basic functional areas of business (accounting, economics, quantitative analysis, finance, supply chain management, organizational behavior, management information systems, marketing, professional responsibilities, and strategic management), as well as advanced elective coursework. Two courses on professional skills development are also required for full-time MBA students.

Courses for the MBA are provided by the departments of Accounting, Economics, Finance, Management and Entrepreneurship, Marketing, Supply Chain Management, and Information Systems and Business Analytics. Courses from other departments may also be chosen to meet specific student interests.

A concurrent BS/MBA is available to eligible engineering undergraduate students majoring in aerospace, agricultural, biological systems, chemical, civil, computer, cybersecurity, electrical, industrial, materials science, mechanical, or software engineering. A concurrent BS/MBA is available to eligible undergraduate students majoring in agricultural systems technology, agronomy, animal science, chemistry, computer science, food science, geology, industrial design, industrial technology, and meteorology.

Double master's degree programs are offered with apparel, merchandising, and design (MBA/MSAMD), architecture (MArch/MBA), community and regional planning (MBA/MCRP), finance (MBA/MFIN),

and information systems (MBA/MSIS). A double degree program (DVM/MBA) is also available to eligible Veterinary Medicine students.

The MBA program is open to all individuals with a baccalaureate degree. Undergraduates from arts and humanities, science, and technical programs are especially encouraged to apply. Academic potential and promise for a productive career in business and for managerial success and leadership in organizations are important criteria for admission. Applicants must submit official transcripts of previous academic work, Graduate Management Admission Test (GMAT) scores or Graduate Record Exam (GRE) scores, personal essays, a resume, and two letters of reference. International students whose native language is not English and who did not graduate from a U.S. college or university are required to submit the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) scores.

Applicants are considered for fall semester entry only into the full-time MBA. Although applications will be considered after this date, candidates are encouraged to submit their application materials by June 1 (March 1 for international students). Part-time MBA applications are considered for fall, spring, or summer entry.

For more information about the MBA program in any of the areas of specialization listed above, please visit: <https://ivybusiness.iastate.edu/masters/mba/>

## Ph.D. in Business and Technology

The Ivy College of Business offers graduate work leading to the Doctor of Philosophy degree in business and technology, with one of six specializations—entrepreneurship (ENTSP), finance, (FIN), information systems (IS), management (MGMT), marketing (MKT), or supply chain management (SCM). Departments in the college (Finance, Management and Entrepreneurship, Marketing, Supply Chain Management, and Information Systems and Business Analytics), along with select other departments from across campus, cooperate in providing coursework toward this degree. The program prepares individuals for academic careers in research, teaching, and public service at institutions of higher learning in the United States and other countries. The PhD program consists of a 44-credit course curriculum followed by a 12-credit thesis or dissertation.

Students do not need to have an undergraduate or master's degree in business in order to qualify for enrollment in the PhD program. However, students without a graduate degree in business will be required to complete 18 credit hours of business foundation courses. These include:

- Financial or managerial accounting (min. 3 Cr)
- Corporate finance (min. 3 Cr)
- Management information systems (min. 3 Cr)
- Marketing (min. 3 Cr)

- Supply chain management (min. 3 Cr)
- Economics – micro and macro (min. 6 Cr)

Students can choose one of six areas of specialization—ENTSP, FIN, IS, MGMT, MKT, or SCM.

The entrepreneurship (ENTSP) specialization is a 56 credit (minimum) curriculum designed around four interrelated areas (core, specialization, minor, and research methods) and dissertation. The focus of the specialization is on preparing students to conduct and publish scholarly research in the fields of Entrepreneurship, Innovation, and Technology Management.

The finance (FIN) specialization trains students to teach at the university level, to do research that is publishable in top academic journals, and to analyze questions that are important to government agencies and the private sector. Successful students develop close working relationships with the ISU finance faculty, both in the classroom and on co-authored research. We strive for our students to publish their first research study before finishing the program, and to obtain jobs at universities rated "high" or "very high" in research activity by the Carnegie Foundation. We emphasize rigorous training and hands-on experience. Five semesters of coursework include a firm grounding in economic theory, thorough training in statistics and econometrics, and an immersion in the most important research studies in corporate finance, investments, and financial institutions.

The information systems (IS) specialization examines issues related to the development, building, management, and use of information and knowledge-based technologies. Such technologies enable users to collect organizational data, provide a platform for organizing and disseminating the data, and offer operational, decision support, and knowledge management tools through which users can leverage data and information for making better organizational decisions. Students in the IS specialization will study areas such as information technology analysis and development, database and knowledge management systems, decision support and data mining, human computer interaction, system security and integrity, and project management and collaborative teamwork.

The management (MGMT) specialization applies a broad range of theoretical perspectives from the social sciences and diverse research methods to the study of organizational behavior, human resources, strategy, and entrepreneurship. The curriculum takes a multidisciplinary approach to analyze individuals and teams, the formulation and implementation of strategy, the effective use of human resources, social responsibility and ethics, entrepreneurship, innovation and technology, and the challenges of the global business environment. The program emphasizes personalized attention and the development of

scholars who can contribute with high-quality theoretical and empirical research in these and related areas.

The marketing (MKT) area focuses on identification and delivery of solutions that help improve the ways in which businesses attract, capture, service and maintain customers. To do these activities well, organizations will need to integrate process goals and activities across different functional areas and across multiple organizational partners. This area of study will examine issues relating to inter-functional and inter-organizational relationships and their management in pursuit of maximizing the lifetime value of a businesses' customer base.

The supply chain management (SCM) specialization focuses on the design, development, and control of business processes for conversion of inputs into outputs and distribution of those outputs. The traditional focus of SCM was on integration of processes across multiple functions within the firm—operations management, logistics, and purchasing primarily, with elements of marketing and information systems included as well. However, in today's world, where competition occurs across supply chain networks, SCM also involves integrating business processes across firms.

Programs of study for the doctoral study are designed for each student in consultation with the major professor and the student's PhD committee. Each student must complete advanced courses in his/her area of specialization, a minor area that supports the major area, and research methods courses. Students must demonstrate competence in theory and research methods by passing qualifying examinations.

The final application deadline for the PhD program is January 15 for fall admission. Applicants must submit official transcripts of previous educational coursework and degrees, Graduate Management Admission Test (GMAT) scores or Graduate Record Exam (GRE) scores, personal essays, a resume, and three letters of reference. International students whose native language is not English and who did not graduate from a U.S. college or university are required to submit TOEFL (Test of English as a Foreign Language) scores.

For more information about the PhD program in any of the areas of specialization listed above, please visit: <https://ivybusiness.iastate.edu/phd/>

## Graduate Minor in Business Administration

The Ivy College of Business also offers a business administration minor to students with majors outside the college. In order to obtain a graduate minor in business administration at Iowa State University, a student must complete eighteen credit hours of the required core courses for the major in business administration. A student who wishes to minor in business administration must have full admission status in his/her respective

graduate program and must be in good academic standing (graduate transcript required).

Required Courses (9 credits):

ACCT 501	Financial Accounting	3
MGMT 502	Organizational Behavior	3
MGMT 503	Professional Responsibility in Business and Society	3

Choose THREE additional courses from the list below (9 credits):

FIN 501	Financial Valuation and Corporate Financial Decisions	3
MKT 501	Marketing	3
SCM 501	Supply Chain Management	3
MIS 501	Management Information Systems	3

Applications for the graduate minor in business administration are accepted for fall semester entry only.

For more information on the graduate minor in business administration, please visit: <https://ivybusiness.iastate.edu/masters/mba/full-time-mba/collaborative-mba-programs/graduate-minors/>

### Courses primarily for undergraduates:

#### **BUSAD 102: Business Learning Team Orientation**

(1-0) Cr. 1. F.S.

A required orientation for all College of Business Students involved with a Business Learning Team. Review of college and university requirements, transfer credits, academic planning, university policies and deadlines and registration procedures. Includes a consideration of various business majors and careers, tools for success in college including writing skills and presentations from employers, alumni and current students. Only one of BusAd 102 or BusAd 103 may be counted towards graduation.

#### **BUSAD 103: Orientation**

(1-0) Cr. 1. F.S.

A required orientation for all College of Business students. Review of college and university requirements, transfer credits, academic planning, university policies and deadlines, and registration procedures. Includes group advising for course selection and registration. Only one of BUSAD 102 or BUSAD 103 may be counted toward graduation.

**BUSAD 203: Professional Development in Business**

(1-0) Cr. 1.

*Prereq: BUSAD 102 or 103*

Designed to develop prepared, professional and engaged students directly aligned with current workplace competencies: individual and team strengths, professional branding, developing and implementing a professional job/internship search, resume and other professional job seeking communications, interviewing, evaluating offers, and networking. Team presentations will be a requirement of this course.

**BUSAD 250: Applied Principles of Business**

(3-0) Cr. 3.

*Prereq: COM S 113*

Introduction to the functional areas of business and how the functional areas are integrated for the purpose of implementing business strategy. Introduces students to decision making tools (spreadsheets and databases) that are integral to business decision making. Includes application exercises to all functional areas of business.

**BUSAD 292: Entrepreneurship & Innovation Learning Community (ILC) Seminar**

(1-0) Cr. 1.

Topics related to entrepreneurship and entrepreneurial thinking. Presentations by entrepreneurs and faculty, field trips, business concept development.

**BUSAD 391: Professional Experiential Learning**

Cr. 1. Repeatable, maximum of 6 credits.

*Prereq: 12 credits from College of Business; written approval of Career Services Internship Coordinator on required form prior to the learning experience.*

Supervised work experience in a business related discipline. Offered on a satisfactory-fail basis only.

**BUSAD 391A: Professional Experiential Learning: Domestic Internship**

Cr. 1. Repeatable, maximum of 6 credits.

*Prereq: 12 credits from College of Business; written approval of Career Services Internship Coordinator on required form prior to the learning experience*

Supervised work experience in a business related discipline. Offered on a satisfactory-fail basis only.

**BUSAD 391B: Professional Experiential Learning: International Internship**

Cr. 1. Repeatable, maximum of 6 credits.

*Prereq: 12 credits from College of Business; written approval of Career Services Internship Coordinator on required form prior to the learning experience*

Supervised work experience in a business related discipline. Offered on a satisfactory-fail basis only.

**BUSAD 391C: Professional Experiential Learning: Domestic Travel and Study**

Cr. 1. Repeatable, maximum of 6 credits.

*Prereq: 12 credits from College of Business; written approval of Career Services Internship Coordinator on required form prior to the learning experience*

Supervised travel and study in a business related discipline. Offered on a satisfactory-fail basis only.

**BUSAD 391D: Professional Experiential Learning: International Travel and Study**

Cr. 1. Repeatable, maximum of 6 credits.

*Prereq: 12 credits from College of Business; written approval of Career Services Internship Coordinator on required form prior to the learning experience*

Supervised travel and study in a business related discipline. Offered on a satisfactory-fail basis only.

**BUSAD 398: Cooperative Education**

Cr. R. Repeatable, maximum of 3 times.

*Prereq: Permission of department*

Required of all cooperative education students engaged in full-time internship/co-op. Students must register for this course prior to commencing each work period. No more than three credits may be taken in addition to BusAd 398 during any given semester. Offered on a satisfactory-fail basis only.

**BUSAD 490: Independent Study**

Cr. 1-3. Repeatable.

*Prereq: Professional program in Business; permission of instructor; for 490H: Admission to the Business Honors Program*

**BUSAD 490A: Independent Study: International Business**

Cr. 1-3. Repeatable.

*Prereq: Professional program in Business; permission of instructor*

**BUSAD 490E: Independent Study: Entrepreneurship**

Cr. 1-3. Repeatable.

*Prereq: senior classification, permission of instructor*

**BUSAD 490G: Independent Study: General**

Cr. 1-3. Repeatable.

*Prereq: Professional program in Business; permission of instructor*  
Independent Study.

**BUSAD 490H: Independent Study: Honors**

Cr. 1-3. Repeatable.

*Prereq: Admission to the Business Honors Program*



**BUSAD 491: Okoboji Entrepreneurship Institute**

Cr. 1-3.

*Prereq: Selection to Okoboji Entrepreneurship Institute*

Advanced study of entrepreneurship that includes a team-based entrepreneurial simulation, seminars with successful entrepreneurs and business community leaders, a formal pitch presentation, and networking and mentoring in an immersive experiential environment. Students must apply and be selected for participation. Offered on a satisfactory-fail basis only.

**Courses primarily for graduate students, open to qualified undergraduates:**

**BUSAD 501: Strategic Management**

(Cross-listed with STB). (2-0) Cr. 2.

*Prereq: Admission to the Graduate Program in Seed Technology and Business or approval of instructor must be obtained.*

Critical analysis of current practice and case studies in strategic management with an emphasis on integrative decision making. Strategy formulation and implementation will be investigated in the context of complex business environments.

**BUSAD 502: Quantitative Business Analysis and Decision Making**

(3-0) Cr. 3.

*Prereq: Enrollment in MBA program or departmental permission*

Introduction to the sources and statistical analysis of data as well as optimization models for use in making business decisions. Data collection, descriptive and inferential statistics including hypothesis testing, analysis of variance, multiple regression, linear programming and simulation.

**BUSAD 503: Information Systems**

(Cross-listed with STB). (2-0) Cr. 2.

*Prereq: Admission to the Graduate Program in Seed Technology and Business or approval of instructor must be obtained.*

Introduction to a broad variety of information systems (IS) topics, including current and emerging developments in information technology (IT), IT strategy in the context of corporate strategy, and IS planning and development of enterprise architectures. Cases, reading, and discussions highlight the techniques and tactics used by managers to cope with strategic issues within an increasingly technical and data-driven competitive environment.

**BUSAD 504: Marketing and Logistics**

(Cross-listed with STB). (3-0) Cr. 3.

*Prereq: Admission to the Graduate Program in Seed Technology and Business or approval of instructor must be obtained.*

Integration of the business functions concerned with the marketing and movement of goods along the supply chain with the primary goal of creating value for the ultimate customer. Coordination of marketing, production, and logistics activities within the firm and with outside suppliers and customers in the supply chain.

**BUSAD 507: Organizational Behavior**

(Cross-listed with STB). (2-0) Cr. 2.

*Prereq: Admission to the Graduate Program in Seed Technology and Business or approval of instructor must be obtained.*

Understanding human behavior in organizations, and the nature of organizations from a managerial perspective. Special emphasis on how individual differences, such as perceptions, personality, and motivation, influence individual and group behavior in organizations and on how behavior can be influenced by job design, leadership, groups, and the structure of organizations.

**BUSAD 508: Accounting and Finance**

(Cross-listed with STB). (3-0) Cr. 3.

*Prereq: Admission to the Graduate Program in Seed Technology and Business or approval of instructor must be obtained.*

Survey of fundamental topics in accounting and finance. Financial statement reporting and analysis for agriculture firms, corporate governance issues related to financial reporting, (e.g., Sarbanes-Oxley). Basic tools and techniques used in financial management, including stock and bond valuation. How to assess and use capital budgeting methods to evaluate proposed firm investments.

**BUSAD 509: International Seed Business Practices, Policies, & Regulation**

(Cross-listed with STB). (3-0) Cr. 3.

*Prereq: Admission to the Graduate Program in Seed Technology and Business or approval of instructor must be obtained.*

Cultural, financial, economic, political, legal/regulatory environments shaping an organization's international business strategy. Topics include entry (and repatriation) of people, firms, goods, services, and capital. Special attention to the institutions of seed regulation and policy. Ethical issues facing managers operating in an international context.

**BUSAD 590: Special Topics in Business**

(3-0) Cr. 3. Repeatable.

*Prereq: Enrollment in MBA program or departmental permission.*

A special topics course covering contemporary issues in business. Topics vary by semester.

**BUSAD 591: Professional Experiential Learning**

Cr. 1-5. Repeatable.

*Prereq: Graduate standing; written approval of supervising instructor and department chair on required form prior to the learning experience*

Academically supervised travel and/or work experiences in a business related discipline.

**BUSAD 592: MBA Professional Skills Development**

Cr. R.

*Prereq: Admission to Full-time MBA Program*

Provides first-year MBA students with tools necessary to develop and implement a successful internship and career search, and to develop professional skills critical for success in the competitive business environment. Topics include career search strategy, resume and cover letter development, interviewing, strategic networking, salary negotiation, impression management, team skills development, presentation skills development, and business etiquette. Required for all full-time MBA students. Offered on a satisfactory-fail basis only.

**BUSAD 594: MBA Professional Skills Development II**

Cr. R.

*Prereq: BUSAD 592*

A second course designed to improve the professional skills of first-year MBA students. Emphasis on building effective communications and networking skills. Students will participate in professional workshops, company visits, executive speaker seminars, service learning projects, business case competitions, and related activities. Offered on a satisfactory-fail basis only.

**BUSAD 598: Cooperative Education**

Cr. R.

*Prereq: Permission of instructor*

Professional work experience. Students must register for this course prior to commencing work. Offered on a satisfactory-fail basis only.

**BUSAD 599: Creative Component**

Cr. 3.

*Prereq: Graduate classification, permission of supervisory committee chair*  
Preparation and writing of creative component.

**BUSAD 599A: Creative Component: Accounting**

Cr. 3.

*Prereq: Graduate classification, permission of supervisory committee chair*  
Preparation and writing of creative component.

**BUSAD 599C: Creative Component: Finance**

Cr. 3.

*Prereq: Graduate classification, permission of supervisory committee chair*  
Preparation and writing of creative component.

**BUSAD 599E: Creative Component: Management**

Cr. 3.

*Prereq: Graduate classification, permission of supervisory committee chair*  
Preparation and writing of creative component.

**BUSAD 599F: Creative Component: Marketing**

Cr. 3.

*Prereq: Graduate classification, permission of supervisory committee chair*  
Preparation and writing of creative component.

**BUSAD 599I: Creative Component: Agribusiness**

Cr. 3.

*Prereq: Graduate classification, permission of supervisory committee chair*  
Preparation and writing of creative component.

**BUSAD 599J: Creative Component: General Business**

Cr. 3.

*Prereq: Graduate classification, permission of supervisory committee chair*  
Preparation and writing of creative component.

**BUSAD 599K: Creative Component: Management Information Systems**

Cr. 3.

*Prereq: Graduate classification, permission of supervisory committee chair*  
Preparation and writing of creative component.

**BUSAD 599L: Creative Component: Supply Chain Management**

Cr. 3.

*Prereq: Graduate classification, permission of supervisory committee chair*  
Preparation and writing of creative component.

**Courses for graduate students:****BUSAD 644: Business Research Methods**

(3-0) Cr. 3. F.

*Prereq: In PhD program in the College of Business or consent of instructor*

A survey of the wide variety of research methods used in business.

Methods will be presented and discussed with emphasis on applicability in different research situations.

**BUSAD 699: Research**

Cr. 3-6. Repeatable. F.S.SS.

*Prereq: Graduate classification, permission of major professor*  
Research.