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### Business Analytics

The Business Analytics area offers two fully online programs, a Master of Science, and a post-graduate certificate.

### Master of Science (M.S.) in Business Analytics

The Master of Science in Business Analytics is a comprehensive program that prepares students for management and executive careers linking technology and management in today's data-heavy analytical world. Data scientists are very good at big data, database, and data analytics, but often lack business training or experience. Managers excel at business operations but have little if any experience with artificial intelligence and machine learning technologies. Graduates with an M.S. in Business Analytics will have a good working knowledge of database, data science, analytics, data visualization, and artificial intelligence as well as a good foundation in business functions. This program applies leading-edge analytics techniques and artificial intelligence to identify and solve today's and tomorrow's complex business problems.

### Admissions

Applications for admission to the program are accepted year-round for any semester.

### Application Materials

1. **Graduate School application.** Applicants may find the application portal on Graduate School's website. The portal may be found here: <https://gradschool.siu.edu/apply/>.
2. **Transcripts.** Graduate School requires transcripts from all post-secondary institutions previously attended other than SIU Carbondale. If official transcripts have already been submitted in the process of applying for another program (such as previously applying for a baccalaureate degree program), please contact our office to determine if those transcripts would need to be sent again.
3. **Resume or CV.** At a minimum, applicants should include all full-time professional experience they earned after being awarded a bachelor's degree.
4. **Personal Statement.** Optional - see "Admissions Requirements" below.
5. **International applicants –**
  - a. Additional requirements for international students are outlined elsewhere in this catalog as well as online at <https://gradschool.siu.edu/apply/international.php>.
  - b. Note that financial disclosures and other materials that are only used for obtaining a student VISA are not required for online programs such as this. Please contact Graduate School ([gradschl@siu.edu](mailto:gradschl@siu.edu)) for more information.

### Admission Requirements

Admissions applications are given holistic consideration. The primary areas of consideration are academic performance (minimum 2.7 GPA, on a scale of 4.00, on the entire last undergraduate GPA earned at the time of application) and professional experience (e.g., length and breadth of experience, level of responsibility, significance of impact, references).

An applicant's materials should demonstrate at least **one of the following three items**:

1. **Professional Experience.** Resume must show three or more years of post-baccalaureate full-time professional work experience.

2. **Academic Experience.** Transcripts must show an AACSB accredited business degree.
3. **Personal Statement.** A personal statement which demonstrates the applicant's fit with the program.

If the admissions committee recommends admission for an applicant despite academic deficiencies, the Graduate School will decide whether or not to directly admit that applicant. If the Graduate School determines one is not qualified for direct admission, an applicant may instead seek non-declared graduate status until establishing a Graduate GPA of at least 3.0 across 9 credit hours. Upon completion, they may re-apply for admission to the program. Please note that non-declared students do not count as "Business" students for the purposes of applying policies.

### **Transfer Credit**

Within the limits imposed by the policies of the Graduate School, an incoming student may receive transfer credit if equivalent graduate-level courses were taken at an AACSB International accredited graduate school. The determination of equivalency is to be made by the faculty director/coordinator of the degree program. Coursework from other than AACSB International accredited graduate schools must be approved by the College's Master's Programs Committee.

### **Degree Requirements**

Students in the program must successfully complete 36 credit hours of coursework, with an overall GPA of 3.0. This includes 12 credit hours from the Core Business Courses, 21 credit hours from the Core Analytics Courses, and 3 credit hours from the Discipline-Specific Analytics Courses.

#### **Core Business Courses (pick 4 of 5, 12 Credit Hours)**

- BA 510: Managerial Accounting and Control Concepts (3 CH)
- BA 522: Operations and Supply Chain Management (3 CH)
- BA 530: Corporate Finance (3 CH)
- BA 540: Managerial and Organizational Behavior (3 CH)
- BA 550: Marketing Management (3 CH)

#### **Core Analytics Courses (21 Credit Hours)**

- BA 523: Strategic Data Mining (3 CH)
- BA 524: Foundations of Analytics for Managers (3 CH)
- BA 525: Data Science and Analytics for Managers (3 CH)
- BA 526: Advanced Analytics and Artificial Intelligence for Managers (3 CH)
- BA 527: Advanced Analytics and Visualization for Managers (3 CH)
- BA 528: Analytics Capstone (3 CH)
- BA 561: Database Design and Applications (3 CH)

#### **Discipline-Specific Course in Analytics (pick 1 of 6, 3 Credit Hours)**

- BA 529A: Accounting Analytics (3 CH)
- BA 529B: Financial Analytics (3 CH)
- BA 529C: Marketing Analytics (3 CH)
- BA 529D: Management Analytics (3 CH)
- BA 529E: Supply Chain Analytics (3 CH)
- BA 591: Independent Study (3 CH)\*

\*Students must obtain approval from the supervising instructor and the program director or coordinator prior to registration for this to count towards the Discipline-Specific Analytics Course requirement.

### **Substitution**

Course(s) which students may not join (e.g. BA 510, BA 530) due to prior education (e.g. accountancy or finance undergraduate majors) may be substituted with other 500-level course(s) subject to the approval from the director of the program. In all cases, the student must still achieve the credit hour requirements listed in "Degree Requirements."

## Special Note - BA 506

BA 506 teaches students who do not have a business education with selected knowledge from a variety of traditional undergraduate business courses, while also preparing students for graduate-level writing. It fulfills the prerequisites for a number of courses including BA 510, BA 522, and BA 530.

Although it can be built into the program of study for any entry term, those without a business education may find entering in summer, when BA 506 is offered, to be ideal for a streamlined program of study.

Those who already fulfill the prerequisites of the courses or will otherwise fulfill them during their program of study, do not need BA 506.

## Certificate in Analytics for Managers

Managers increasingly are expected to consider large amounts of data to make faster and better decisions. Analytics is a technical tool that can be used to process all these data to find solutions. This post-baccalaureate certificate allows practicing executives, managers, and those on the managerial track, to understand their organization in terms of analytics, to make the best use of their organization's analytics function, and to apply analytical models back into their organization. This is not a deeply technical program because few managers will need the highly technical skills of data scientists. But, rather, this is a program that will introduce managers to the latest advances in analytics and artificial intelligence so they can make more efficient and effective data-based decisions.

Students must complete 18 credit hours of coursework in Foundation of Analytics, Information Systems, Data Science, Artificial Intelligence, Visualization, and the Analytics Capstone course.

**For more information about the programs, please contact:**

Graduate Programs Office  
College of Business and Analytics  
Mail Code 4625  
1025 Lincoln Drive  
Carbondale, Illinois 62901  
Telephone: 618-453-3030  
[gradprograms@business.siu.edu](mailto:gradprograms@business.siu.edu)

## Differential Tuition

The College of Business and Analytics has a differential tuition surcharge of 15 percent of applicable tuition for graduate College of Business and Analytics majors. The differential tuition surcharge will be assessed at the in-state tuition rate.

## Business Analytics Courses

**BA410 - Financial Accounting Concepts** Basic concepts, principles, and techniques used in the generation of accounting data for financial statement preparation and interpretation. Asset, liability, equity valuations and income determination is stressed. Restricted to enrollment in M.B.A. program or consent of department. Credit Hours: 3

**BA430 - Business Finance** An introductory course combining both a description of the structure of business financing and an analysis of functional finance from a managerial viewpoint. Prerequisites: Business Analytics I and ACCT 220, or equivalents. Restricted to enrollment in M.B.A. program or consent of department. Credit Hours: 3

**BA450 - Introduction to Marketing Concepts** An overview of the role of marketing within an economic system and of the major marketing activities and decisions within an organization. Emphasis is on

developing an understanding of the marketing process. Restricted to enrollment in M.B.A. program or consent of department. Credit Hours: 3

**BA470 - Legal and Social Environment** An overview of the legal, social, and ethical dimensions which influence business with particular attention to the role of law as a control factor of society in the business world. Restricted to enrollment in M.B.A. program or consent of department. Credit Hours: 3

**BA505 - Brand Management** This course will focus on important issues facing brand managers who are managing existing brands. The focus will be at the level of the brand and the discussions will pertain to issues involved in the development and implementation of brand strategies. The course will provide students with a conceptual framework to examine brand equity and use it as the basis for managing categories of brands, brand extensions, and dealing with the threats of generic brands. There will be an emphasis on bringing together the different elements of a brand strategy. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA506 - Fundamentals of Business & Communication for M.B.A. Professionals** This course will prepare M.B.A. Professionals for the demands of the program. The course is divided into four parts to provide students the necessary foundational skills and knowledge. (1) Introduces students to the program and helps them re-familiarize with academic communication styles. (2) Introduces students to data analytics, and satisfies the Business Analytics I foundation requirement. (3) Covers the fundamental accounting and finance topics, and satisfies the Accounting/Finance/Economics foundation requirement. (4) Introduces students to topics in their preselected concentration and satisfies the particular workshop required for that concentration. Restricted to enrollment in a College of Business and Analytics graduate program or consent of School. Credit Hours: 2

**BA509 - Advanced Seminar in Leadership Development** This course focuses on leadership processes. In particular, this course will emphasize self-development and the skills necessary to lead. This course will also build upon the conceptual foundations provided from leadership topics covered in previous courses, structuring opportunities for finding practical application of theoretical concepts. Restricted to enrollment in an Online MBA program or consent of department. Credit Hours: 2

**BA510 - Managerial Accounting and Control Concepts** Basic cost concepts, measures, methods and systems of internal accounting useful for managerial planning, implementation, control and performance evaluation. Includes cost analysis relevant for non-routine decision-making. Prerequisites: Accounting, Finance, and Economics Foundation Area, or ACCT 220, or equivalent. Not available to students who were undergraduate accounting majors. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA511 - Entrepreneurship Theory & Practice** This course is designed to provide master's students with an introduction to entrepreneurship, its theory, and practical applications. During this course, students will be exposed to a number of activities related to starting and operating a business. The goal of this course is to provide students with the basic tools for business creation. The culmination of the course will be the completion of a business plan. Restricted to enrollment in an Online MBA program or consent of department. Credit Hours: 2

**BA514 - Ethics of Business** (Same as ACCT 514) Philosophical implications of contemporary issues in business ethics. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA522 - Operations and Supply Chain Management** The study of the development of competitive strategy for the operations and supply chain function, frameworks and tools used to implement operations and supply chain strategy, and how the operations and supply chain function contributes to an organization's competitive capabilities in the global marketplace. Prerequisite: Business Analytics I Foundation Area or equivalent. Restricted to enrollment in the College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA523 - Strategic Data Mining** Concepts and techniques for strategic knowledge discovery in structured and unstructured data from pre-processing and transformation to model validation and post-processing. Real-world examples and cases to put data mining in context and to illustrate how the application of data

mining can lead to better strategic data-based decision making. Restricted to enrollment in College of Business and Analytics graduate program or consent of the department. Credit Hours: 3

**BA524 - Foundations of Analytics for Managers** This course provides an introduction of data science and analytics from a real-world perspective through interviews with technical staff, managers, and executives. In addition, the course teaches the statistical foundations needed for data science and analytics. Restricted to enrollment in College of Business and Analytics graduate program or consent of the department. Credit Hours: 3

**BA525 - Data Science and Analytics for Managers** Provides a broad overview of basic concepts, principles, and recent innovations in Data Science. Data Science is the study of the extraction of knowledge from data. Data Science includes good domain knowledge, data modeling, database, statistics, and AI to produce effective solutions, predictions, and insights. This course will give a practical introduction to business analytics using databases, data warehouses, structured, and unstructured data from a cross-section of industries. Restricted to enrollment in College of Business and Analytics graduate program or consent of the department. Credit Hours: 3

**BA526 - Advanced Analytics and Artificial Intelligence for Managers** The goal of Artificial Intelligence (AI) is to have a machine that can perform the cognitive functions of the human mind such as learning and thinking. This course is an introduction to artificial intelligence and how it can be combined with data analytics to create a powerful tool for better decision making. Prerequisite: BA 525 or equivalent. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA527 - Advanced Analytics and Visualization for Managers** This course will introduce students to the field of data visualization. Data visualization is the science of stripping data down to its most important structures and then using the best techniques to take advantage of human perception for effective communication, decision making, and persuasion. Students will learn how to present data in the most efficient, effective, and aesthetic for decision making. Prerequisite: BA 525 or equivalent. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA528 - Analytics Capstone** This is the capstone course in data analytics. Students will apply techniques learned in analytics, data science, artificial intelligence, and visualization in a variety of real world scenarios. Emphasis is on creative, abstract, and integrative thinking in executing a program in data analytics and managing the data analytics function. Prerequisite: BA 525, BA 526, and BA 527 or equivalent. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA529A - Accounting Analytics** Use of analytics and accounting concepts and techniques. How structured and unstructured accounting data are obtained, validated, processes, and used in making descriptive and predictive models. The use of accounting analytics for better data-based accounting decision making. Prerequisite: BA 510, or baccalaureate accounting degree, or equivalent. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA529B - Financial Analytics** Use of analytics and finance concepts and techniques. How structured and unstructured financial data are obtained, validated, processed, and used in making descriptive and predictive models. The use of financial analytics for better data-based financial decision making. Prerequisite: BA 530, or FIN 361, or baccalaureate finance degree, or equivalent. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA529C - Marketing Analytics** Use of analytics and marketing concepts and techniques. How structured and unstructured marketing data are obtained, validated, processed, and used in making descriptive and predictive models. The use of marketing analytics for better data-based marketing decision making. Prerequisite: BA 550, or baccalaureate marketing degree, or equivalent. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA529D - Management Analytics** Use of analytics and management concepts and techniques. How structured and unstructured management data are obtained, validated, processes, and used in making descriptive and predictive models. The use of management analytics for better data-based managerial

decision making. Prerequisite: BA 540, or baccalaureate management degree, or equivalent. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA529E - Supply Chain Analytics** Use of analytics and supply chain concepts and techniques. How structured and unstructured supply chain data are obtained, validated, processed, and used in making descriptive and predictive models. The use of supply chain analytics for better data-based operations decision making. Prerequisite: BA 522, or baccalaureate business degree with supply chain management specialization, or equivalent. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA530 - Corporate Finance** Provide a broad overview of basic concepts, principles, and recent innovations in financial management. Topics covered will include risk and return, valuation, capital budgeting, capital structure and cost of capital, dividend policy, financial planning, international financial management and corporate restructuring. Prerequisite: Accounting, Finance, and Economics Foundation Area or equivalent. Not available for students who have credit for FIN 361 or were undergraduate finance majors. Restricted to enrollment in College of Business and Analytics graduate program or consent of the department. Credit Hours: 3

**BA531 - Advanced Corporate Finance** An evaluation of selected financial policies connected with the acquisition and disposition of funds by the firm. An emphasis is placed on quantitative solutions to these problems. Prerequisite: BA 530, or FIN 361, or SIU undergraduate Finance major. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA532 - Financial Institutions and Markets** The principal financial institutions and markets will be studied in relation to their contribution to the efficient operation of the individual enterprise and the total company. Prerequisite: BA 530 or FIN 361 with a C or better. Not available to students with credit for FIN 449 or equivalent. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA533 - Investment Concepts** A study of fixed return and variable return securities, investment services, industry and issue analysis, empirical studies of groups and individual stock price movements. Prerequisite: BA 530 or FIN 361 with a C or better. Not available for students with credit for FIN 433 or equivalent. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA536 - Financial Analysis and Security Valuation** Study of financial problems facing corporations, their causes and solutions. Emphasis given to the impact of these financial problems on how the market values securities. Topics include liquidity and leverage analysis, analysis of profitability, and other financial analysis tools. Not available for students with credit for FIN 469. Prerequisite: BA 530 or FIN 361. Restricted to enrollment in M.B.A. program or consent of school. Credit Hours: 3

**BA537 - Intellectual Property and Commercialization** (Same as ENGR 522, LAW 633) Course teaches substance & practice of commercializing products of scientific & technical research. Provides a basic understanding of intellectual property laws in commercialization context & how those laws are applied in various fields of technology. Will learn how to value intangible assets, taking into account their commercial potential & legal status. Course will consider the legal & business issues surrounding marketing of products of research. Will prepare & negotiate license agreements. Will analyze legal & business issues surrounding whether & how to enforce intellectual property rights. Content & methods of course delivery & evaluation has been approved for provision by distance education. Credit Hours: 3

**BA538 - Options and Futures Markets** Study of modern concepts and issues in financial options and futures markets. Emphasis on risk management in financial institutions, and applications in corporate finance and funds management. Not available to students with credit for FIN 432 or equivalent. Prerequisite: FIN 331 with a grade of C or better. Restrictions: College of Business and Analytics students, junior standing or higher; or program approval required. Credit Hours: 3

**BA539A - Doctoral Seminar in Theoretical and Empirical Corporate Finance-I** A series of doctoral seminars on theoretical and empirical issues in finance. Sections (A) through (D) may be taken only once. BA 539A covers a subset of topics on Theoretical and Empirical Corporate Finance, including

methodology used in corporate finance research. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA539B - Doctoral Seminar in Theoretical and Empirical Corporate Finance-II** A series of doctoral seminars on theoretical and empirical issues in finance. Sections (A) through (D) may be taken only once. BA 539B covers the remaining set of topics on Theoretical and Empirical Corporate Finance, including methodology used in corporate finance research. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA539C - Doctoral Seminar in Theoretical and Empirical Asset Pricing and Investment-I** A series of doctoral seminars on theoretical and empirical issues in finance. Sections (A) through (D) may be taken only once. BA 539C covers a subset of topics on Theoretical and Empirical Asset Pricing and Investment, including methodology used in asset pricing and investment research. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA539D - Doctoral Seminar in Theoretical and Empirical Asset Pricing and Investment II** A series of doctoral seminars on theoretical and empirical issues in finance. Sections (A) through (D) may be taken only once. BA 539D covers the remaining set of topics on Theoretical and Empirical Asset Pricing and Investment, including methodology used in asset pricing and investment research. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA540 - Managerial and Organizational Behavior** Case analyses of human problems in the business organization. Application of findings of behavioral science research to organization problems. Development of direction and leadership skills. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA545A - Seminar in Organization Studies** A series of advanced seminars in organization studies. Sections (A)-(G) can be taken only once. Foundations in Organization Studies. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA545B - Seminar in Organization Studies** A series of advanced seminars in organization studies. Sections (A)-(G) can be taken only once. Advances in Organizational Behavior. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA545C - Seminar in Organization Studies** A series of advanced seminars in organization studies. Sections (A)-(G) can be taken only once. Advances in Organization Theory. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA545D - Seminar in Organization Studies** A series of advanced seminars in organization studies. Sections (A)-(G) can be taken only once. Advances in Strategic Management. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA545E - Seminar in Organization Studies** A series of advanced seminars in organization studies. Sections (A)-(G) can be taken only once. Special Topics in Organizational Behavior. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA545F - Seminar in Organization Studies** A series of advanced seminars in organization studies. Sections (A)-(G) can be taken only once. Special Topics in Organization Theory. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA545G - Seminar in Organization Studies** A series of advanced seminars in organization studies. Sections (A)-(G) can be taken only once. Special Topics in Strategic Management. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA547A - Seminar in Production/Operations Management-Foundations in Production/Operations Management** Series of advanced seminars in Production/Operations Management. Sections (A) through (C) may be taken only once. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA547B - Seminar in Production/Operations Management** Series of advanced seminars in Production/Operations Management. Sections (A) through (C) may be taken only once. Service Operations Management. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA547C - Seminar in Production/Operations Management** Series of advanced seminars in Production/Operations Management. Sections (A) through (C) may be taken only once. Production/Operations Management and Information Systems. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA547D - Seminar in Production/Operations Management** Series of advanced seminars in Production/Operations Management. Special Topics in Production/Operations Management. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA548A - Seminar in Management Information Systems** A series of advanced seminars on Management Information Systems (MIS). Sections (A) through (D) may be taken only once. Advances in Management Information Systems. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA548B - Seminar in Management Information Systems** A series of advanced seminars on Management Information Systems (MIS). Sections (A) through (D) may be taken only once. Decision Support and Information Systems. Prerequisite: (A). Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA548C - Seminar in Management Information Systems** A series of advanced seminars on Management Information Systems (MIS). Sections (A) through (D) may be taken only once. Section (E) may be repeated as topics vary. Quantitative and Computer Methods for Decision Support and Information Systems. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA548D - Seminar in Management Information Systems** A series of advanced seminars on Management Information Systems (MIS). Sections (A) through (D) may be taken only once. Section (E) may be repeated as topics vary. Strategic Management of Information. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA548E - Project Management** Organizations have become increasingly complex and their success is generally dependent on how well individuals can function as a group. It is important that you understand the activities that are necessary to participate in or manage a successful project; these topics include project selection, project scheduling, project budgeting, project monitoring and controlling a project, and closing a project. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA550 - Marketing Management** A managerial approach to the study of marketing. Emphasis is on the nature and scope of the marketing manager's responsibilities and on marketing decision-making. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA551 - Product Strategy and Management** Designed to treat product management and its relationships with business policies and procedures; the development of multiproduct strategies, means of developing such strategies and the problems and methods of commercialization. Prerequisite: BA 550 or equivalent. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA552 - Research Methodology for Marketing** The study of theory, method and procedure for quantitative and qualitative analysis of primary and secondary marketing data. Emphasis is placed on application of specific research tools to the process of formulating and testing research hypotheses. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3



**BA555 - Seminar in Consumer Behavior** Emphasis on the theories and research relating behavioral science to the discipline of marketing. Development of sophisticated comprehension of the consumption process is undertaken. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA556 - Seminar in Marketing Strategy** Long run market opportunities are identified and evaluated. Methods of implementation and execution affecting the relationship of strategic marketing planning to the allocation decisions of top management are emphasized. The orientation is toward theoretical development to provide a base for continuing research in the field. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA557 - Seminar in Marketing Theory** The philosophical bases underlying the development of theory in marketing. The process of development of marketing ideations through research is emphasized. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA558 - Promotional Strategy and Management** The study of the elements of the promotional mix including advertising, personal selling, sales promotion and publicity and how they apply in the profit and not-for-profit sectors of the market place. Prerequisite: BA 550 or equivalent. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA559 - Digital Marketing** This course focuses on the development of competitive strategy for the digital marketing function of organizations, how that strategy relates to organizational strategy, and how the digital marketing function can contribute to an organization's competitive capabilities in the global marketplace. This course will introduce digital marketing and marketing on the internet, including email marketing, social networks, search engine advertising and optimization, blogging, virtual communities, viral and affiliate marketing, mobile marketing, and online B2B communications. The focus will be on how firms can use these new mediums to communicate with target audiences, deepen their relationships with online customers, and promote their products/services. Prerequisite: BA 550 with a C- or better, or baccalaureate marketing degree, or equivalent. Restricted to enrollment in the College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA560 - Management of Information Systems** A survey of information system design, analysis and operations. Topics include systems concepts, systems analysis and design, database management, software and hardware concepts, decision support systems, expert systems, distributed processing and telecommunications and information systems planning. Applications of information technology will be emphasized. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA561 - Database Design and Applications** Database planning, design and implementation; application of data modeling techniques-entity-relationship diagrams, hierarchical, network, relational and object-oriented data modeling; physical design and data administration; Distributed and Expert Database Systems. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA566 - Working Capital Management** Liquidity analysis and management with a focus on managing cash, marketable securities, accounts receivable, inventory, banking relationships and short-term financing. Not available to students with credit for FIN 462 or equivalent. Prerequisite: FIN 361 with a grade of C or better or concurrent enrollment. Restrictions: College of Business and Analytics majors or minors, junior standing or higher; or program approval required. Credit Hours: 3

**BA567 - Forecasting and Capital Budgeting** Long-term forecasting techniques used in business; alternative approaches to capital structure decisions, cost of capital measurement; and performance measurement for investment decisions including mergers and leasing; explicit consideration of certainty, risk, and uncertainty in investment analysis; theory and applications in private and public sectors. Not available to students with credit for FIN 463 or equivalent. Prerequisite: FIN 361 with a grade of C or better or concurrent enrollment. Restrictions: College of Business and Analytics majors or minors, junior standing or higher; or departmental approval required. Credit Hours: 3

**BA574 - Advanced Research Methods in Business Administration** A capstone research course in business that exposes the student to a full range of research experiences. Emphasis is on integrating

learning and creative thinking in the execution of the research process. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA574B - Advanced Research Methods II** This course is a practicum in advanced research methods. It will focus on analysis of data, interpretation of results and synthesis of conclusions based on a clear understanding of the objectives of research, the characteristics of data and techniques for manipulating data. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA575 - Seminar in Multivariate Statistics** This seminar in multivariate statistics will give doctoral students in Business a theoretical and practical knowledge of multivariate methods such as cluster analysis, multiple regression, discriminant analysis, canonical analysis, etc., for the purpose of equipping them for dissertation work, and subsequent research for publication in the top academic business journals. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA580 - International Dimensions of Business and Management** International business and activities are examined in the international environment. The course will focus on concepts and issues of international business and will analyze the marketing, financial, accounting, managerial, logistical and production functions of international operations. Emphasis is on integrating, learning and creative thinking through lecture and case analysis. Foundational M.B.A. coursework should be completed. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA581 - Global Marketing** The basic elements of marketing management are identified in the setting of a global business environment. Emphasis is given to variables in the international markets that effect strategic business planning such as cultural, ethical, political and economic influences. The course focuses on current trends in the marketing practices of organization. Prerequisite: BA 550 or equivalent. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA582 - International Finance** Discussion of international monetary system, parity conditions, foreign exchange markets and financial markets. Special focus on financial management of the multinational firm, including risk assessment, hedging, capital budgeting, and performance evaluation and control. Not available for students with credit for FIN 464. Prerequisite: BA 530 or FIN 361. Restricted to enrollment in College of Business and Analytics graduate program, or consent of department. Credit Hours: 3

**BA588A - Study Abroad-Business** Provides graduate credit for study abroad at accredited and approved foreign institutions. To be taken as first study abroad program. Restricted to enrollment in M.B.A. program or consent of department. Credit Hours: 3

**BA588B - Study Abroad-Business** Provides graduate credit for study abroad at accredited and approved foreign institutions. To be taken as second study abroad program. Prerequisite: All Foundation Area degree requirements. Restricted to enrollment in M.B.A. program or consent of department. Credit Hours: 1-3

**BA590 - Marketing Research and Data Analysis** The purpose of this course is to teach you the skills needed to execute marketing research projects or use marketing research information to make better marketing decisions. To do this, the course covers techniques such as, determining if marketing research is needed, problem definition, research designs, survey design, sampling issues, data collection, and data analysis. The course also covers interpretation of results as well as recommendations for marketing managers/take-aways from the research. In this class, both quantitative and qualitative methods are used to collect primary data. The deliverable for the course is a full marketing research report for a live (real) client. Prerequisites: MATH 139; ACCT/FIN/MGMT 208 and BA 550 with a grade of C or higher. Restrictions: Graduate students, program approval required. Credit Hours: 3

**BA591 - Independent Study** Directed independent study in selected areas of business administration. May be repeated as topics vary. Restricted to enrollment in College of Business and Analytics graduate program. Departmental approval required. Credit Hours: 1-15

**BA595 - Internship/Work Experience** Current practical experience in a business or other work directly related to course work in a College of Business and Analytics program and to the student's educational objectives might be used as a basis for granting credit to the college. Credit is given when specific program credit cannot be granted and is usable for elective credit only. Credit is sought by petition and must be approved by the CoBA dean before registration. Graded S/U or DEF only. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 1-6

**BA598 - Business Policies** Study of the development and evaluation of business strategies and policies as they relate to the overall performance of the firm within its environment. Knowledge of the functional areas of administration, available business data and analytical tools will be utilized in solving comprehensive business cases and simulation games. Restricted to enrollment in College of Business and Analytics graduate program or consent of department. Credit Hours: 3

**BA599 - Thesis** Restricted to enrollment in M.B.A. program or consent of department, consent of instructor. Credit Hours: 3-6

**BA600 - Dissertation** Minimum of 24 hours to be earned for the Doctor of Philosophy degree in Business Administration. Restricted to advancement to candidacy for Doctor of Philosophy Degree in Business Administration. Credit Hours: 1-24

**BA601 - Continuing Enrollment** For those graduate students in business who have not finished their degree programs and who have one or more INCs or DEFs on their records and/or are in the process of completing their degree requirements. The student must have previously enrolled in a minimum of 36 hours of course work that meets M.B.A. program core and elective requirement or have completed a minimum of 24 hours of BA 600 before being eligible to register for this course. Concurrent enrollment in any other course is not permitted. Graded S/U or DEF only. Credit Hours: 1

**BA699 - Postdoctoral Research** Must be a Postdoctoral Fellow. Concurrent enrollment in any other course is not permitted. Credit Hours: 1

## Business Analytics Faculty

**Anaza, Nwamaka**, Professor, Marketing, Ph.D., Purdue University, 2010; 2015. Consumer behavior, international marketing, marketing analytics.

**DeYong, Gregory D.**, Associate Professor, Ph.D., Indiana University, 2010; 2013. Operations and supply chain management, decision technologies.

**Islam, Md. Shariful**, Assistant Professor, Accountancy, Ph.D., Louisiana Tech University, 2019; 2019. Accounting information systems, auditing, data analytics.

**Kamran-Disfani, Omid**, Assistant Professor, Marketing, Ph.D., University of Missouri-Columbia, 2019; 2019. Data analytics.

**Nelson, H. James**, Associate Professor, Management, Ph.D., The University of Colorado, 1999; 2005. Analytics, artificial intelligence, information systems.

**Perry, Timothy T.**, Clinical Assistant Professor, Finance, Ph.D., Texas Tech University, 2009; 2019. Financial analytics.

**Sylwester, Kevin**, Professor and Director, School of Analytics, Finance, and Economics, Ph.D. University of Wisconsin-Madison, 1997; 1998. Macroeconomics, data analytics.

**Thomas, Tomcy**, Visiting Assistant Professor, Business Analytics, Ph.D., University of Tennessee-Knoxville, 2019; 2023. Supply chain analytics, management analytics.

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