

GENERAL BUSINESS (GEN BUS)

GEN BUS 106 – FOUNDATIONAL SKILLS FOR BUSINESS ANALYSIS

1 credit.

Build fundamental skills and processes to develop a strong foundation in business analysis utilizing Excel. Learn the fundamentals of data construction, manipulation, summarization, analysis and presentation.

Requisites: None

Repeatable for Credit: No

Last Taught: Spring 2024

Learning Outcomes: 1. Apply fundamental skills in structuring business information. Audience: Undergraduate

2. Organize, search and analyze business data. Audience: Undergraduate

3. Apply advanced skills in data summarization and analysis. Audience: Undergraduate

4. Visualize and present information. Audience: Undergraduate

5. Apply introductory programming skills. Audience: Undergraduate

6. Explain recent developments in 'data informed' business problem solving. Audience: Undergraduate

GEN BUS 110 – PERSONAL AND PROFESSIONAL FOUNDATIONS IN BUSINESS

1 credit.

An introduction for new business students covering academic exploration and planning, career development, self-assessment for personal development, leadership, and diversity and inclusion.

Requisites: None

Repeatable for Credit: No

Last Taught: Spring 2024

Learning Outcomes: 1. Demonstrate a basic ability to self-assess and reflect on their personality, identities, strengths, values, and personal ethics. Audience: Undergraduate

2. Explain the importance of continuous self-assessment as a method for improving approaches to work and interactions with others. Audience: Undergraduate

3. Demonstrate the foundational understanding of leadership development as related to business now and in the future. Audience: Undergraduate

4. Demonstrate the foundational understanding of career development as related to business. Audience: Undergraduate

5. Explain the importance of leading ethically, inclusively, and authentically in individual and group settings. Audience: Undergraduate

GEN BUS 112 – EXPLORING BUSINESS

1 credit.

Develop student success strategies, engage with a community of peers, professionals, faculty and staff, and explore the breadth of professional opportunities available to launch an inspiring and meaningful career.

Requisites: None

Repeatable for Credit: No

Learning Outcomes: 1. Critically reflect on improving study skills, career planning, and ethical perspectives to promote success in business. Audience: Undergraduate

2. Demonstrate professional communications skills in written and spoken formats in individual and group settings. Audience: Undergraduate

3. Identify business sectors, industries, and WSB majors that align with your desired future goals. Audience: Undergraduate

GEN BUS 198 – DIRECTED STUDY

1 credit.

Directed study and research in business topics.

Requisites: Consent of instructor

Repeatable for Credit: Yes, unlimited number of completions

Last Taught: Spring 2008

GEN BUS 206 – BEGINNING DATA ANALYSIS FOR BUSINESS

3 credits.

Learn basic business statistical skills to comprehend business reports, and to calculate statistical findings from business data using Excel. Understand simple probability calculations and how to apply probability to specific business uncertainties. Build capability to use simple statistical models and tests to estimate business variables of interest, and learn about predictive relationships between variables. Become comfortable using Excel for data manipulation, data analytics, and data visualization. Apply statistical analysis to address business issues.

Requisites: MATH 112 and GEN BUS 106

Repeatable for Credit: No

Last Taught: Spring 2024

Learning Outcomes: 1. Explain important statistics commonly used in business Audience: Undergraduate

2. Apply basic probability concepts and models to uncertainty in business contexts Audience: Undergraduate

3. Use data to estimate unknown business variables, test hypotheses, and learn with simple regression Audience: Undergraduate

4. Use Excel to analyze data, create visualizations, and answer business questions Audience: Undergraduate

5. Create a basic business proposal using statistics and data analytics Audience: Undergraduate

GEN BUS 207 – INTERMEDIATE DATA ANALYSIS FOR BUSINESS

3 credits.

Enables you to understand and apply useful approaches to analyzing and presenting data to support business decision making. Emphasis on applications of predictive and prescriptive analytics. Predictive approaches use historical data to infer relationships and forecast future outcomes. Prescriptive methods formulate decision models to identify choices that are optimal with respect to a desired, measurable outcome. Provides experience integrating diverse data sources, modelling uncertainty, and visualizing key insights.

Requisites: GEN BUS 206

Repeatable for Credit: No

Last Taught: Spring 2024

Learning Outcomes: 1. Analyze and communicate with data in business environments Audience: Undergraduate

2. Implement and interpret output from common statistical methodologies Audience: Undergraduate

3. Integrate data from multiple data sources Audience: Undergraduate

4. Create compelling data visualizations Audience: Undergraduate

5. Solve and interpret basic optimization and simulation models Audience: Undergraduate

6. Integrate models of uncertainty into business decision-making Audience: Undergraduate

GEN BUS/DS 240 – HUMAN-CENTERED DESIGN AND BUSINESS

2 credits.

Design thinking is an iterative problem-solving process geared toward producing innovative solutions for complex and persistent problems in various fields and organizations. Its process, culture, and value system from both design and business point of views will be covered: Empathetic understanding of the end users, problem definition rooted in systems thinking, ideation with a strong emphasis on creativity, visualization and prototyping, testing rooted in a set of research methods, and finally, the importance of iteration in bringing about innovative solutions. The path from project to market will also be explored, with an understanding of how one might balance desirability, feasibility and viability.

Requisites: None

Repeatable for Credit: No

Last Taught: Spring 2024

GEN BUS 250 – SUSTAINABLE CAPITALISM

2 credits.

Examination of how firms, government, and civil society interplay in free market capitalism to bring about not only prosperity and economic freedom but also economic inequality, environmental degradation, and a weakening of institutions. Application of this knowledge to how capitalism can be reimagined for free market economies and business to foster prosperous societies and planetary health.

Requisites: ECON 101 or declared in undergraduate Business Exchange program

Repeatable for Credit: No

Last Taught: Spring 2024

Learning Outcomes: 1. Describe how the interplay between firms, governments, and market systems shape economic, societal and environmental outcomes, as well as tradeoffs within. Audience: Undergraduate

2. Explain varieties of capitalism across nations and compare with United States capitalism over time. Audience: Undergraduate

3. Analyze the role of business, governments, and civil society in managing free markets to balance the wellbeing of firms with the wellbeing of society and the natural environment. Audience: Undergraduate

GEN BUS 301 – BUSINESS LAW

3 credits.

History of legal development, contracts, agency, sale of goods, insurance.

Requisites: None

Repeatable for Credit: No

Last Taught: Spring 2024

Learning Outcomes: 1. Recognize the legal implications of transactions and events that impact the business environment. Audience: Undergraduate

2. Describe the American legal system and how the American court system works. Audience: Undergraduate

3. Apply the technical legal rules covered in the course regarding negligence, intellectual property, contract law, agency law, and employment law. Audience: Undergraduate

4. Analyze and assess risks and opportunities inherent in business transactions and in everyday life. Audience: Undergraduate

GEN BUS 306 – BUSINESS ANALYTICS I

3 credits.

Development of quantitative intuition through practical applications and use of analysis tools. Specifically, emphasis will be on how to manage, summarize, explore, and visualize databases. The essentials of probability will be introduced and applied to decision problems where there is uncertainty. Emphasis on hypothesis testing and regression analysis and include an introduction to simulation methods. Throughout, attention will be paid to effective communication of data analysis. The use of business cases will connect the course material to both real world settings and recent advances in data analysis, including big data and data mining.

Requisites: (GEN BUS 106 or concurrent enrollment) and (MATH 211, 217, or 221), or declared in undergraduate Business Exchange program

Repeatable for Credit: No

Last Taught: Spring 2024

Learning Outcomes: 1. Develop “statistical literacy,” meaning that you can interpret statistics frequently used in current events, industry reports, and so on Audience: Undergraduate

2. Distinguish between descriptive and inferential statistics, and apply skills such as data summarization, hypothesis testing, and regression analysis, using Excel Audience: Undergraduate

3. Apply the core concepts of probability to decision-making under uncertainty, including an introduction to simulation Audience: Undergraduate

4. Synthesize your knowledge with quantitative business cases Audience: Undergraduate

5. Create effective communication of data analyses in written, visual, and/or oral formats Audience: Undergraduate

GEN BUS 307 – BUSINESS ANALYTICS II

3 credits.

Emphasis on hands-on experience with many commonly used analytic methodologies using the modeling and optimization tools available on almost every professional desktop. The focus is predictive and prescriptive analytics. Predictive approaches use historical data to infer causal relationships and forecast future outcomes from a given action. Prescriptive methods take this a step further, helping managers formulate decision models that identify optimal actions given a set of circumstances.

Requisites: GEN BUS 106 and 306, or declared in undergraduate Business Exchange program

Repeatable for Credit: No

Last Taught: Spring 2024

Learning Outcomes: 1. Explain the principles of different regression techniques for different forms of data Audience: Undergraduate

2. Discriminate between types of explanatory variables and ways to incorporate these variables in a statistical model Audience: Undergraduate

3. Implement and interpret output from the most common statistical methodologies Audience: Undergraduate

4. Recognize the structure of relational databases Audience: Undergraduate

5. Construct basic optimization and simulation models Audience: Undergraduate

6. Understand the collection, management, reasoning, and communication with data in corporate and other environments Audience: Undergraduate

GEN BUS 308 – CLOUD BASED BUSINESS ANALYTICS

2 credits.

Apply statistics and data literacy to business problems using the most popular analytics tools and technologies, many of which are in the cloud.

Requisites: GEN BUS 307, 317, ECON 400, 410, or declared in undergraduate Business Exchange program

Repeatable for Credit: No

Last Taught: Spring 2024

Learning Outcomes: 1. Build and share dashboards using data visualization tools. Audience: Undergraduate

2. Utilize SQL to query cloud databases. Audience: Undergraduate

3. Build and deploy a predictive model in the cloud. Audience: Undergraduate

4. Analyze big data in a cloud environment. Audience: Undergraduate

GEN BUS 310 – FUNDAMENTALS OF ACCOUNTING AND FINANCE FOR NON-BUSINESS MAJORS

3 credits.

Part of a two course sequence introducing non-business students to basic concepts, practices and analytical methods that are part of the market enterprise system. This course is a basic overview on: accounting, finance, and business law.

Requisites: Sophomore standing or declared in the Business Exchange program

Course Designation: Breadth – Social Science
Level – Intermediate

L&S Credit – Counts as Liberal Arts and Science credit in L&S

Repeatable for Credit: No

Last Taught: Spring 2024

GEN BUS 311 – FUNDAMENTALS OF MANAGEMENT AND MARKETING FOR NON-BUSINESS MAJORS

3 credits.

High-level introduction to concepts and practices in business. Overview of management, marketing, strategy, entrepreneurship, ethics, supply chain, and international business.

Requisites: Sophomore standing

Course Designation: Breadth – Social Science
Level – Intermediate

L&S Credit – Counts as Liberal Arts and Science credit in L&S

Repeatable for Credit: No

Last Taught: Spring 2024

Learning Outcomes: 1. Summarize the business environment including core functions, participants, and the external forces that influence business activities such as globalization, diversity, business ethics, and corporate social responsibility Audience: Undergraduate

2. Evaluate different types of business formations and create a business plan Audience: Undergraduate

3. Describe and apply the role of marketing in business Audience: Undergraduate

4. Analyze business strategies and management decisions in order to evaluate their impact on business performance Audience: Undergraduate

GEN BUS 317 – MATHEMATICAL FOUNDATIONS OF BUSINESS ANALYTICS

3 credits.

Statistical inference and analyses based on models will be introduced and applied in a business context using a calculus-based focus. Topics covered include point estimation, confidence intervals, hypothesis testing, regression models, and time series models. Various methods for fitting a model to data will be explored, and uncertainty about parameter estimates will be quantified so decision makers have information about the quality of the estimates. Regression and time series models are commonly used in business analytics applications and will be used to analyze business data and make inferences and predictions.

Requisites: MATH 331, STAT/MATH 309, or 431**Repeatable for Credit:** No**Last Taught:** Spring 2024

Learning Outcomes: 1. Apply discrete and continuous probability distributions to data encountered in business applications and evaluate the quality of parameter estimates. Audience: Undergraduate

2. Explain the basics of modeling using both regression and time series approaches. Audience: Undergraduate

3. Recognize the assumptions and limitations of the methods utilized in this course to aid businesses in making decisions under uncertainty. Audience: Undergraduate

4. Interpret statistical information for someone with a non/less technical background. Audience: Undergraduate

5. Analyze business data and construct models using appropriate statistical software. Audience: Undergraduate

6. Communicate and present the results of an analysis. Audience: Undergraduate

GEN BUS/INTL BUS 320 – INTERCULTURAL COMMUNICATION IN BUSINESS

3 credits.

Develops awareness and knowledge of cultural influences on business. Focuses on various attitudes toward work, time, material possession, business, and the relationship of these attitudes to different social, religious, philosophical, and educational backgrounds of business people from cultures around the world.

Requisites: Sophomore standing or declared in the Business Exchange program**Repeatable for Credit:** No**Last Taught:** Spring 2024**GEN BUS 360 – WORKPLACE WRITING AND COMMUNICATION**

3 credits.

Develop and practice workplace communication skills: writing, speaking, and listening. A theoretical foundation provides a method of deep audience analysis; apply that analysis when producing a variety of written genres and when preparing content for formal presentations. Research communication and information sources specific to future careers. Strengthen information literacy by developing professional research skills and analyzing sources. Revise written work through a workshop process that requires giving, receiving, and implementing feedback.

Requisites: Satisfied Communications A requirement; no concurrent enrollment with GEN BUS 110 or 120**Course Designation:** Gen Ed - Communication Part B**Repeatable for Credit:** No**Last Taught:** Spring 2024

Learning Outcomes: 1. Demonstrate active listening skills Audience: Undergraduate

10. Demonstrate effective visual design strategies in documents and slide-decks Audience: Undergraduate

2. Develop a writing process that includes drafting, incorporating feedback, and self-evaluation to create effective documents in various genres Audience: Undergraduate

3. Analyze audiences with attention to differences in backgrounds, values, viewpoints, and experiences in order to tailor communication to a variety of workplace audiences, genres, and situations Audience: Undergraduate

4. Employ appropriate style and discipline-specific conventions in writing and speaking Audience: Undergraduate

5. Identify and locate resources specific to the students' industry/discipline using the library system and internet Audience: Undergraduate

6. Analyze information sources and communication skills that professionals use Audience: Undergraduate

7. Evaluate sources for credibility and relevance; use evidence recognized as credible by the students' industry/discipline and cite it appropriately Audience: Undergraduate

8. Provide constructive feedback on peers' work-in-progress and presentations Audience: Undergraduate

9. Incorporate feedback and self-evaluation to improve presentations Audience: Undergraduate

GEN BUS 365 – CONTEMPORARY TOPICS

1-3 credits.

A course for the exploration of subject areas possibly to be introduced into the business curriculum.

Requisites: Sophomore standing or declared in undergraduate Business Exchange program

Repeatable for Credit: Yes, unlimited number of completions

Last Taught: Fall 2023

GEN BUS 370 – CASE INTERVIEW ANALYSIS

1 credit.

Provides a fundamental understanding of how to prepare for a case interview, analyze problems based on limited information, consider alternatives to develop a solution and present the solution effectively.

Requisites: None

Repeatable for Credit: No

Last Taught: Spring 2024

Learning Outcomes: 1. Effectively implement a systematic approach to analyzing case problems. Audience: Undergraduate

2. Identify types of case problems and match them with frameworks and analytical tools designed to inform those problems and structure recommended solutions. Audience: Undergraduate

3. Apply relevant analytical tools to identify missing information needed to understand problems. Audience: Undergraduate

4. Formulate probing questions to bring out critical facts and assumptions about problem contexts. Audience: Undergraduate

5. Integrate available facts and data into the relevant analytical tools and frameworks to diagnose problems holistically. Audience: Undergraduate

6. Concisely communicate the analysis of case problems along with actionable recommendations to address the situations. Audience: Undergraduate

GEN BUS 399 – READING AND RESEARCH-BUSINESS RESEARCH

1-6 credits.

Individual work suited to the needs of undergraduate students may be arranged with a faculty member.

Requisites: Consent of instructor

Course Designation: Level - Advanced

L&S Credit - Counts as Liberal Arts and Science credit in L&S

Repeatable for Credit: Yes, unlimited number of completions

Last Taught: Spring 2021

GEN BUS 400 – INTEGRATED STRATEGIC LEADERSHIP

3 credits.

Capstone integrating the curriculum through the application of business strategy to business problems in cross-functional teams. Develops and refines key skills introduced in core courses, including professional communications, inclusive leadership, and quantitative analysis.

Requisites: GEN BUS 360 and (M H R 300, OTM 300, FINANCE/ ECON 300, and MARKETNG 300, or concurrent enrollment)

Repeatable for Credit: No

Learning Outcomes: 1. Make effective business decisions that integrate data driven analysis and input from diverse team members from cross functional disciplines. Audience: Undergraduate

2. Develop and apply inclusive leadership skills in a team setting to facilitate a sense of belonging among team members. Audience: Undergraduate

3. Perform an external analysis of a firm's environment (industry, rivals, broader environment), and an internal analysis of a firm's resources (capabilities, tangible, and intangible assets, etc.) to identify productive courses of action. Audience: Undergraduate

4. Perform an analysis of alternative strategic positions in an industry, distinguishing between cost and differentiation strategies, with implications for building competitive advantage. Audience: Undergraduate

5. Effectively communicate solutions to complex problems through application of the frameworks, methods and tools, learned in WSB core classes. Audience: Undergraduate

GEN BUS 450 – PROFESSIONAL EXPERIENCE IN BUSINESS

1 credit.

Internship which allows students to augment their business education and gain professional experience in their major through related work experience. Intended for undergraduates in the School of Business. Not available with firms who participate in the ACCT I S 600 internship. See listing on Accounting Dept. website.

Requisites: Consent of instructor

Course Designation: Workplace - Workplace Experience Course

Repeatable for Credit: Yes, for 2 number of completions

Last Taught: Spring 2024

GEN BUS 451 – PROFESSIONAL EXPERIENCE IN BUSINESS-EXTENDED INTERNSHIP

1 credit.

Only allowed for six to eight month internships which will allow students to augment their business education and gain professional experience in their major area. Students receive one credit and will remain a full-time student. Intended for undergraduates in the School of Business

Requisites: Consent of instructor

Course Designation: Workplace - Workplace Experience Course

Repeatable for Credit: No

Last Taught: Spring 2024

GEN BUS 656 – MACHINE LEARNING FOR BUSINESS ANALYTICS

3 credits.

Introduction to machine learning techniques in business. Focus on applications for solving business problems, including hands-on practice in the context of various real-world data sets. Materials covered include machine learning foundations, different methodological approaches, and implementation tools for machine learning for business applications. Methods include both supervised learning techniques (linear regression and classification, non-linear regression, CARTs, random forests, SVMs, artificial neural nets, etc.) as well as unsupervised learning techniques (clustering, principal components, etc.).

Requisites: GEN BUS 307, 317 704, 705, ECON 400, 410, STAT/ MATH 310, STAT 333, 340, or declared in the Business Exchange program

Repeatable for Credit: No

Last Taught: Spring 2024

Learning Outcomes: 1. Build machine learning models for the purpose of prediction in business contexts, choosing from a variety of statistical learning techniques. Audience: Undergraduate

2. Adjust models and tune parameters of machine learning models in business settings, taking into account the fundamental bias-variance tradeoff. Audience: Undergraduate

3. Evaluate prediction accuracy of models for regression and classification problems for business applications. Audience: Undergraduate

4. Communicate the advantages and disadvantages of different prediction approaches, and justify and explain their choices in the context of business problems. Audience: Undergraduate

5. Interpret the prediction outcomes of a given machine learning model in a business context, and communicate the results to non-expert audiences. Audience: Undergraduate

6. Review advanced literature on machine learning, and further develop machine learning skills in self-study. Audience: Undergraduate

GEN BUS 700 – MANAGERIAL COMMUNICATION

1-2 credits.

Focuses on strategic aspects of communication goals for managers and practice in skills needed to carry out writing and speaking objectives.

Requisites: Graduate/professional standing or declared in graduate Business Exchange program

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: No

Last Taught: Spring 2019

GEN BUS/R M I 701 – MANAGING LEGAL RISKS

3 credits.

Legal implications for business managers of selected areas of the law including negligence, contract, intellectual property, officer/director liability, financing the business enterprise, and employment and trade regulation; introduction to the legal process, including alternative dispute resolution systems.

Requisites: Graduate/professional standing or declared in graduate Business Exchange program

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: No

Last Taught: Spring 2019

GEN BUS 704 – DATA TO DECISIONS

2-3 credits.

Exploration of statistical inference and data analytics tools. Review of relevant foundations of statistics, machine learning and probability theory. Emphasis on applying the resulting concepts to canonical business examples, using both Excel and R.

Requisites: Declared in an MBA program

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: No

Last Taught: Fall 2023

Learning Outcomes: 1. Read, clean, create new datasets Audience: Graduate

2. Describe the resulting data by computing and interpreting summary statistics, and via visualization tools Audience: Graduate

3. Describe uncertainty and risk using the language of probability theory Audience: Graduate

4. Perform hypothesis tests common in business applications Audience: Graduate

5. Perform Monte Carlo simulations Audience: Graduate

6. Estimate cross-sectional and time-series models for forecasting purposes and select among competing models via cross-validation Audience: Graduate

7. Apply machine learning methods in the context of simple examples Audience: Graduate

GEN BUS 705 – STATISTICS AND PROGRAMMING FOR BUSINESS ANALYTICS

3 credits.

A compact primer in statistics and an introduction to programming as a foundation for data-driven business analyses. The first part covers elementary concepts such as random variables, probability distributions, estimation, and ordinary least-squares regression. In the second part, the course exposes students to Python and R programming, including numerical and statistical packages that are relevant for practical applications in business.

Requisites: Graduate/professional standing

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: No

Last Taught: Summer 2023

Learning Outcomes: 1. Derive measures related to the characteristics of probability functions such as moments, mean, variance, median, mode, and percentiles. Audience: Graduate

2. Carry out an ordinary least-squares (OLS) regression and interpret the parameter estimates as well as predictions. Audience: Graduate

3. Prepare, compile, and run basic computer programs in a variety of programming languages including C/C++, Java, Python, R, Stata, and VBA. Audience: Graduate

4. Implement algorithms for business analytics problems in a structured fashion in Python and R. Audience: Graduate

5. Pick suitable numerical functions from available packages, including quadrature (numerical integration), numerical solution of non-linear equations, optimization, and random-number generation, and use the functionality for business analyses. Audience: Graduate

6. Run a Monte Carlo simulation using R and Python. Audience: Graduate

GEN BUS 710 – ETHICS, INTEGRITY AND SOCIETY

1 credit.

This class is designed to prepare students for dealing with ethical challenges in the world outside academia. Focus is on the role of personal values in all types of decision making, from personal to professional.

Requisites: Declared in an MBA program

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: No

Last Taught: Spring 2024

GEN BUS 711 – FINANCIAL MANAGEMENT OF HEALTHCARE ORGANIZATIONS

2-3 credits.

Creates understanding of the critical contemporary accounting and financial management issues impacting healthcare provider organizations. Presents the fundamentals of financial accounting and financial statement analysis of health care organizations. Addresses financial management of healthcare organizations by first adapting a longer-term perspective through capital budgeting and finance. This longer-term strategic perspective is then extended into balanced scorecard reporting for health care organizations where we consider strategic metrics around financial performance, patient and payer satisfaction, internal process improvement, and organizational learning and growth through investment in human capital and technology.

Requisites: Graduate/professional standing

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: No

Last Taught: Spring 2021

Learning Outcomes: 1. Understand and evaluate the economic pressures in the health care industry and responses to these pressures by health care organizations. Audience: Graduate

2. Analyze financial statements to draw conclusions as to the economic status of health care organizations. Audience: Graduate

3. Differentiate the cost-structure and revenue function of health care providers in fee-for-service, bundled payment, and capitated payment environments. Audience: Graduate

4. Illustrate the construction and use of operating budgets for health care organizations. Audience: Graduate

5. Utilize the concepts of net present value (NPV) to management decisions in the capital budgeting process. Audience: Graduate

GEN BUS 712 – LEADERSHIP AND INNOVATION IN HEALTHCARE

2-3 credits.

Leading innovations and improvements in healthcare is an essential skill set in today's healthcare marketplace. Applying and synthesizing theories of leadership, innovation, informatics, and business concepts to complex health care systems to improve outcomes will be covered. Current and emerging issues, theories, and case studies will be used to explore attributes of innovative leaders, emerging models of care, models/frameworks of innovation, emergence and disruption, creativity and innovation through evidence. There will be a focus on the role of the leader in the selection and implementation of technology and policy innovations. Primary deliverable is the creation of a business plan for an innovative program or service.

Requisites: Graduate/professional standing**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** No**Learning Outcomes:** 1. Articulate the importance of evidence based innovation in healthcare Audience: Graduate

2. Compare and contrast leadership theories and models of innovation Audience: Graduate

3. Describe characteristics and skills of innovative leaders Audience: Graduate

4. Employ advanced leadership communication skills effectively Audience: Graduate

5. Analyze the culture and organizational design of a healthcare system or department Audience: Graduate

6. Apply the principles of leadership, business and health care economics in the development of a new innovative program or service that will improve the quality of care delivery for a specific population, program, or system Audience: Graduate

GEN BUS 713 – ROLE OF BUSINESS IN SOCIETY

2 credits.

Explores and implements the critical thinking, communication, and managerial skills necessary for developing ethical organizations.

Requisites: Graduate/professional standing**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** No**Last Taught:** Fall 2023**Learning Outcomes:** 1. Develop a deeper understanding of ethical dilemmas at work and your personal ethical beliefs. Audience: Graduate

2. Use a systematic ethics decision-making framework to arrive at moral conclusions. Audience: Graduate

3. Explain why firms should be ethical. Audience: Graduate

4. Describe best practices for enhancing an organization's ethical performance. Audience: Graduate

5. Benchmark and assess your organization's ethical performance. Audience: Graduate

GEN BUS 714 – CORPORATE GOVERNANCE AND BOARD MEMBERSHIP

2-3 credits.

Explore the roles and responsibilities of Management and Directors in protecting the interests of Shareholders and other Stakeholders. Topics include: the history of Corporate Governance, Board of Directors responsibilities, Corporate Governance nuances outside of the U.S., and current trends in Corporate Governance. Analyze how an entity's Corporate Governance environment can either prevent or permit failures and have a direct impact on the success of an organization.

Requisites: Graduate/professional standing or declared in graduate Business Exchange program

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: No

Learning Outcomes: 1. Explain the roles management, shareholders and directors have in impacting the Corporate Governance environment. Audience: Graduate

2. Articulate the responsibilities of a Board of Directors and its Committees as well as what makes for effective members. Audience: Graduate

3. Evaluate the root cause of Corporate Governance breakdowns and apply this learning to new situations and environments. Audience: Graduate

4. Compare public vs. private company Corporate Governance environments including the major influences on international Corporate Governance environments. Audience: Graduate

5. Reflect on the current and future practices in Corporate Governance including those that address global environmental and social issues. Audience: Graduate

GEN BUS 720 – DATA VISUALIZATION FOR BUSINESS ANALYTICS

1-2 credits.

Introduce students to principles of data visualization and provide hands-on experience using data visualization tools and techniques for business applications. Develop proficiency in current visualization software tools, and leverage these tools for data exploration, insight into decision-making, and data presentation. Recommended for students to have general computing skills and familiarity with MS Word, MS Excel and MS PowerPoint; introductory-level exposure to coding in any language; some R experience; basic statistical literacy, equivalent to at least one semester of statistics.

Requisites: Graduate/professional standing

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: No

Last Taught: Fall 2023

Learning Outcomes: 1. Identify the information contained in data sets and make simple data corrections/transformations to prepare data for visualization tools Audience: Graduate

2. Explore data sets visually to recognize patterns and relationships that provide insights and recommendations into business problems Audience: Graduate

3. Identify design principles and best practices that make good visualizations effective and recognize challenges present in making data understandable across a range of audiences Audience: Graduate

4. Construct effective static and interactive data visualizations for business decision-making and critique/improve existing ones Audience: Graduate

5. Efficiently and persuasively communicate data insights through presentations, dashboards, and reports Audience: Graduate

6. Explain history and current landscape of data visualization tools and their relative strengths and weaknesses Audience: Graduate

7. Proficiently use Tableau visualization software Audience: Graduate

8. Improve data presentation and visualizations in Excel and PowerPoint Audience: Graduate

9. Make basic visualizations in R Audience: Graduate

GEN BUS 725 – CONSULTING PRACTICUM

1 credit.

Solve critical business challenges. Drawing on and integrating the MBA core curriculum, conduct an in-depth analysis and make recommendations on a strategic problem posed by the sponsor company.

Requisites: GEN BUS 704, ACCT I S 700, FINANCE 700, M H R 706, MARKETNG 700, and OTM 700

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: No

Last Taught: Spring 2024

Learning Outcomes: 1. Analyze a specific real-world organizational challenge and apply strategic thinking and decision-making skills to develop an effective and integrative business solution to that challenge. Audience: Graduate

2. Apply creative and critical thinking to address ambiguity and uncertainty in the project. Audience: Graduate

3. Communicate effectively with the client. Audience: Graduate

4. Lead and function effectively in teams. Audience: Graduate

5. Reflect on personal and professional development as business leaders for a global business environment. Audience: Graduate

GEN BUS 730 – PRESCRIPTIVE MODELING AND OPTIMIZATION FOR BUSINESS ANALYTICS

2-3 credits.

Introduction to fundamentals of prescriptive analytics with emphasis on business applications. Modeling and mathematical optimization using Excel and Python. Designing, building, testing, and analyzing models, including sensitivity and risk analysis. Developing and solving optimization models, including linear, integer, and nonlinear problems. Course includes some principles of model-building and fundamentals of optimization theory but emphasizes practical application, hands-on learning, and problem-driven exercises.

Requisites: Graduate/professional standing

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: No

Last Taught: Fall 2023

Learning Outcomes: 1. Apply a sound decision-making process to ill-structured problems Audience: Graduate

2. Construct spreadsheet models for decision-making support Audience: Graduate

3. Leverage simulation to assess the impact of uncertainty in spreadsheet models Audience: Graduate

4. Classify optimization problems and formulate them in a form that can leverage optimization tools (e.g., linear programs, integer programs, nonlinear programs) Audience: Graduate

5. Execute computational tools to find the solution to mathematical problems and interpret the results in business context Audience: Graduate

6. Recognize classic OR problems and recall the form of their solutions Audience: Graduate

7. Use spreadsheet modeling techniques for optimization in Excel Audience: Graduate

8. Leverage optimization packages in R for optimization Audience: Graduate

GEN BUS 740 – EXPERIMENTS AND CAUSAL METHODS FOR BUSINESS INSIGHTS

2-3 credits.

Provides an introduction to experimental and causal methods for driving business insights. Topics include: (1) Review and distinction of correlation vs. causation; (2) design and analysis of randomized-controlled experiments; and (3) identification of "natural experiments" in business data and corresponding empirical strategies.

Requisites: (GEN BUS 704 or 705) and (GEN BUS 720 or concurrent enrollment); or GEN BUS 881

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: No

Last Taught: Fall 2023

Learning Outcomes: 1. Articulate why descriptive data analysis based on correlations, such as multivariate regression techniques, may give misleading impressions of causal relationships. Audience: Graduate

2. Identify statements that use correlational evidence to infer causal relationships. Audience: Graduate

3. Understand the value of randomization for establishing causal effects through experiments. Audience: Graduate

4. Demonstrate skills to implement a randomized experiment and compare outcomes. Audience: Graduate

5. Identify and implement appropriate quasi-experimental techniques for analyzing existing data from a causal perspective. Audience: Graduate

GEN BUS 745 – ROBOTIC PROCESS AUTOMATION

1-2 credits.

Explore the fundamentals of Robotic Process Automation, including common use cases and popular tools. Provides an opportunity to automate a variety of processes using this technology.

Requisites: Graduate/professional standing or declared in graduate Business Exchange program

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: No

Last Taught: Spring 2024

Learning Outcomes: 1. Communicate the fundamentals and common use cases for robotic process automation (RPA). Audience: Graduate

2. Automate various business processes using RPA tools and best practices. Audience: Graduate

3. Complete an RPA project that involves identifying automation opportunities and implementing solutions. Audience: Graduate

GEN BUS 746 – ADVANCED SQL & DATA WAREHOUSING

2 credits.

Provides an opportunity to construct advanced SQL statements (including joins, common table expressions, window functions, etc.) and build cloud data warehouses in a variety of software vendor platforms.

Requisites: (GEN BUS 760 and 780), (GEN BUS 882 and 883), or member of Graduate Business Exchange program

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: No

Last Taught: Spring 2024

Learning Outcomes: 1. Construct advanced SQL statements – including joins, common table expressions, window functions, etc. Audience: Graduate

2. Build cloud data warehouses in various software vendor platforms. Audience: Graduate

3. Automate steps in a data pipeline within a cloud environment. Audience: Graduate

4. Present self-designed technical solutions to address business problems. Audience: Graduate

GEN BUS 750 – PROFESSIONAL EXPERIENCE IN BUSINESS

1 credit.

Internship which allows students to augment their business education and gain professional experience in their major through related work experience.

Requisites: Declared in an MBA program

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: Yes, unlimited number of completions

Last Taught: Spring 2024

GEN BUS 760 – DATA TECHNOLOGY FOR BUSINESS ANALYTICS

2-3 credits.

Focuses on various technologies needed to perform data analytics. Techniques of extracting structured and unstructured data from databases, applications, or social networks. Transform and combine data with other relevant information and load into targeted systems. How to use programming languages to collect data from the web and leverage libraries for other, more, advanced data analysis.

Requisites: Graduate/professional standing**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** No**Last Taught:** Spring 2024**Learning Outcomes:** 1. Extract data from both structured or unstructured databases Audience: Graduate

2. Transform and combine data with other relevant information and load into targeted systems such as data warehouses, data marts or analytical applications Audience: Graduate

3. Use Python to execute simple web scraping, mine data from social networks, and use the libraries for advanced data analysis beyond simple descriptive analytics Audience: Graduate

4. Implement Online Analytical Processing (OLAP) and create multi-dimension data cubes Audience: Graduate

5. Execute social mining techniques and create valuable information from text-mining for decision-making Audience: Graduate

6. Discuss current landscape in data warehousing, big data, and other emerging topics Audience: Graduate

GEN BUS 765 – CONTEMPORARY TOPICS

1-4 credits.

Exploration of advanced subject areas possibly to be introduced into the business curriculum.

Requisites: Graduate/professional standing or declared in graduate Business Exchange program**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** Yes, unlimited number of completions**Last Taught:** Fall 2023**GEN BUS/ECON/STAT 775 – INTRODUCTION TO BAYESIAN DECISION AND CONTROL I**

3 credits.

Common sampling models in business and economic problems, information from data, likelihood function of parameters, choices of models, Bayes' Theorem, subjective basis for probability, sequential nature of Bayesian inference, prior and posterior distributions of parameters in binomial, poisson, exponential and normal populations, comparison of two normal distributions, predictive distributions, decision theory, utility, risk aversion, extensive form of analysis, two-action problems, point estimation, best population problems, economics of sampling.

Requisites: STAT 609 or STAT/MATH 709**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** No**Last Taught:** Spring 2024**GEN BUS 777 – CONSULTING SKILLS BOOTCAMP**

1 credit.

An introduction to consulting tools and models.

Requisites: Graduate/professional standing**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement**Repeatable for Credit:** No**Last Taught:** Spring 2024**Learning Outcomes:** 1. Apply the SCQ framework to a business problem in a case format Audience: Graduate

2. Develop a presentation using the answer-first principle and storyboarding techniques Audience: Graduate

3. Prepare and deliver a persuasive presentation Audience: Graduate

4. Reflect on your own progress and learning during the module and practice sharing constructive feedback Audience: Graduate

GEN BUS 780 – CLOUD TECHNOLOGY FOR BUSINESS ANALYTICS

1 credit.

Provides an overview of cloud services that support business analytics. Load and analyze data, build and deploy machine learning models, and develop data pipelines through hands-on, in-class activities working in cloud environments.

Requisites: Graduate/professional standing or member of graduate Business Exchange program

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: No

Last Taught: Fall 2023

Learning Outcomes: 1. Explain, at a foundational level, the cloud landscape for business analytics – i.e. vendors, services, and costs. Audience: Graduate

2. Demonstrate how to load and connect to data in the cloud for a variety of analytics. Audience: Graduate

3. Setup and manage a cloud data warehouse. Audience: Graduate

4. Build and deploy machine learning models in the cloud. Audience: Graduate

5. Develop and test a data pipeline in the cloud. Audience: Graduate

6. Analyze big data in a cloud environment. Audience: Graduate

GEN BUS/ACCT IS/E P D 781 – FINANCIAL AND BUSINESS ACUMEN

1 credit.

This course is designed with a keen awareness for the needs of the non-financial student or professional. For this class, no previous financial training is required. The intent is to equip you with the essential concepts used to develop financial literacy. Content will cover basic financial terms and reports, analytical tools to help interpret financial data and using financial data in budgets and forecasts.

Requisites: Graduate/professional standing. Not open to students declared in an MBA program

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: No

Last Taught: Summer 2023

GEN BUS/E P D/MARKETNG 782 – MARKETING FOR NON-MARKETING PROFESSIONALS

1 credit.

An overview of marketing's role within an organization, the key elements of a marketing plan, and how the plan is implemented. Students will learn about buyer demographic, psychographic and purchasing decision behavior. A thorough understanding of the customer enables students to develop a coordinated marketing mix (product, price promotion and place) that will satisfy the customer better than the competition and at the required margin. Students will leave the course understanding the degree to which all company functions must be coordinated and focused on the customer. This course will not apply toward fulfilling the MBA degree requirements.

Requisites: Graduate/professional standing or declared in graduate Business Exchange program

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: No

Last Taught: Spring 2023

GEN BUS/E P D/M H R 783 – LEADING TEAMS

1 credit.

Students will gain the knowledge and skills to continuously enhance their own team performance and productivity as well as the teams they are involved with. They will also be in a much better position to lead teams effectively.

Requisites: Graduate/professional standing or declared in graduate Business Exchange program

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: No

Last Taught: Spring 2024

GEN BUS/E P D/OTM 784 – PROJECT MANAGEMENT ESSENTIALS

1 credit.

Techniques that will help to plan, execute, and deliver projects with desired scope on time and on budget. Learn to document clear project objectives and goals, accurately estimate project time and costs, schedule and allocate time-critical resources, and establish feedback systems for optimal project control.

Requisites: Graduate/professional standing or declared in graduate Business Exchange program

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: No

Last Taught: Summer 2023

GEN BUS/E P D/M H R 785 – EFFECTIVE NEGOTIATION STRATEGIES

1 credit.

Improves students' negotiating skills, doing so by providing a theoretical underpinning that will help them to understand the sources of effective and ineffective approaches to negotiations.

Requisites: Graduate/professional standing or declared in graduate Business Exchange program

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: No

Last Taught: Summer 2023

GEN BUS 790 – CAPSTONE CONSULTING PRACTICUM

1-3 credits.

Provides an opportunity to bring together all material learned throughout the program and synthesize it through an applied consulting project.

Explore and apply concepts to a future career through: identifying and understanding the business challenge, applying analytic methods to discover insight(s) to answer the business challenge, developing recommendations based on the findings, and communicating those findings and recommendation(s).

Requisites: Graduate/professional standing

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: No

Last Taught: Spring 2024

Learning Outcomes: 1. Learn and apply management consulting practices through conducting an analytics consulting project on a current business problem. Audience: Graduate

2. Articulate a business problem and translate into an analytics question. Audience: Graduate

3. Evaluate a business problem by selecting and conducting an appropriate analytical technique to address the problem. Audience: Graduate

4. Clearly articulate a business recommendation based on the discovered finding(s). Audience: Graduate

5. Learn and apply project management skills. Audience: Graduate

6. Demonstrate professional written and verbal communication skills. Audience: Graduate

7. Articulate personal insights about their preparation for graduation and post-MSBA career. Audience: Graduate

GEN BUS 791 – EMBA CONSULTING PRACTICUM I

1 credit.

Provides an opportunity to bring together all of the material learned throughout the program and synthesize it through an applied consulting project. Allows exploration and application of concepts to a future career through identifying and understanding the business challenge and applying research and analysis to discover insight(s).

Requisites: Graduate/professional standing

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: No

Learning Outcomes: 1. Articulate the business challenge being examined and establish a work plan for addressing that business challenge. Audience: Graduate

2. Conduct, compile and synthesize research relevant to the business challenge. Audience: Graduate

3. Work with a team to complete tasks and reflect on your own progress and learning as part of that team. Audience: Graduate

GEN BUS 792 – EMBA CONSULTING PRACTICUM II

1 credit.

Provides an opportunity to bring together all the material learned throughout the program and synthesize it through an applied consulting project. Allows exploration and application of concepts to a future career through developing recommendations based on the research and findings from the first course and communicating those findings and recommendation(s).

Requisites: GEN BUS 791

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: No

Learning Outcomes: 1. Determine recommendations for action that will positively impact the sponsor organization. Audience: Graduate

2. Practice sharing and receiving feedback to improve outcomes. Audience: Graduate

3. Present findings and recommendations to the sponsor organization. Audience: Graduate

4. Work with a team to complete tasks and reflect on your own progress and learning as part of that team. Audience: Graduate

GEN BUS 799 – READING AND RESEARCH-BUSINESS RESEARCH

1-6 credits.

Individual work suited to the needs of graduate students may be arranged both during regular sessions and during the intersession periods.

Requisites: Consent of instructor

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: Yes, unlimited number of completions

Last Taught: Fall 2022

GEN BUS 806 – PANEL DATA ANALYSIS

3 credits.

Linear fixed and random effects models; estimation and prediction; data exploration, diagnostics and model selection techniques; generalized linear panel data models.

Requisites: STAT 849 and ECON 709

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: No

Last Taught: Spring 2022

GEN BUS 840 – CURRENT TOPICS IN BUSINESS ANALYTICS AND ARTIFICIAL INTELLIGENCE

1 credit.

Covers emerging and current topics in the industry through applied learning experiences – case studies, industry meetings, and exercises or workshops.

Requisites: Graduate/professional standing

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: No

Last Taught: Spring 2024

Learning Outcomes: 1. Explore how organizations utilize analytics and artificial intelligence through interactions with industry professionals
Audience: Graduate

2. Articulate insights from interactions with industry professionals
Audience: Graduate

3. Articulate business recommendations based on in-class activities and analysis
Audience: Graduate

4. Demonstrate professional written and verbal communication skills
Audience: Graduate

5. Articulate current career aspirations
Audience: Graduate

GEN BUS 881 – BUSINESS STATISTICS USING PYTHON

2 credits.

A compact primer in statistics as a foundation for data-driven business analysis. A selection of concepts include probability, estimation, inference, correlation, and regression.

Requisites: Graduate/professional standing or declared in graduate Business Exchange program

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: No

Last Taught: Spring 2024

Learning Outcomes: 1. Calculate descriptive statistics and generate basic visualizations using Python. Audience: Graduate

2. Explain and apply principles and rules of probability. Audience: Graduate

3. Utilize inferential statistics and communicate the uncertainty in statistical estimates. Audience: Graduate

4. Perform regression analysis, and distinguish between correlation and causation. Audience: Graduate

GEN BUS 882 – SQL FUNDAMENTALS

2 credits.

Construct a wide variety of SQL statements; such as joins, common table expressions, window functions, etc. Basics of query optimization and data modeling.

Requisites: Graduate/professional standing or declared in graduate Business Exchange program

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: No

Last Taught: Spring 2024

Learning Outcomes: 1. Construct a variety of SQL statements. Audience: Graduate

2. Query and prepare data in response to business questions. Audience: Graduate

3. Design a database to meet a business need and technical requirements. Audience: Graduate

GEN BUS 883 – DATA VISUALIZATION & CLOUD TECHNOLOGIES

2 credits.

Provides experience in data visualization and cloud technologies to support business analytics. Create and share compelling data visualizations to enhance decision making. Use cloud technologies to build scalable data warehouses, analyze big data, and develop and deploy machine learning models.

Requisites: Graduate/professional standing or declared in graduate Business Exchange program. Not open to students with credit for GEN BUS 720 or 780.

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: No

Last Taught: Spring 2024

Learning Outcomes: 1. Create compelling data visualizations and dashboards. Audience: Graduate

2. Explain the cloud landscape for business analytics - i.e. vendors, services, and costs. Audience: Graduate

3. Setup and manage a cloud data warehouse. Audience: Graduate

4. Build and deploy a machine learning model in the cloud. Audience: Graduate

5. Analyze big data in a cloud environment. Audience: Graduate

GEN BUS 884 – APPLIED ANALYTICS - CASE STUDIES

2 credits.

Project-based applications of statistics, programming, data visualization, and database management.

Requisites: GEN BUS 881, 882, and 883

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: No

Learning Outcomes: 1. Develop and communicate analytics solutions to business challenges and opportunities. Audience: Graduate

2. Build a predictive model using the Python programming language. Audience: Graduate

3. Create an executive dashboard to support business decision making. Audience: Graduate

4. Use SQL to query a database in response to business questions. Audience: Graduate

GEN BUS 885 – PYTHON FUNDAMENTALS

2 credits.

Explore the fundamentals of the Python programming language - such as data structures, functions, loops, and control flow - and utilize Python for data wrangling and analysis.

Requisites: Graduate/professional standing or declared in graduate Business Exchange program

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: No

Learning Outcomes: 1. Demonstrate the fundamentals of the Python programming language. Audience: Graduate

2. Apply programming best practices; such as readability, simplicity, and reusability. Audience: Graduate

3. Utilize Python for data manipulation and analysis Audience: Graduate

GEN BUS 886 – FOUNDATIONS OF PREDICTIVE MODELING FOR BUSINESS ANALYTICS

2 credits.

An introduction to predictive modeling for business applications beginning with some of the foundations, including a primer in matrix algebra and numerical optimization. Leads to development of linear regression and classification models, and discussion of building models for prediction. Topics include selection, regularization, and the bias-variance tradeoff.

Requisites: GEN BUS 881

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: No

Learning Outcomes: 1. Build (generalized) linear regression models for the purpose of prediction. Audience: Graduate

2. Select predictive algorithms and model features, taking into account the fundamental bias-variance tradeoff. Audience: Graduate

3. Evaluate prediction accuracy of models for regression and classification problems. Audience: Graduate

4. Interpret the output of regression models, and communicate the results to non-expert audiences. Audience: Graduate

GEN BUS 888 – APPLIED MACHINE LEARNING FOR BUSINESS ANALYTICS

2 credits.

An introduction to machine learning models for business applications. Builds on the predictive modeling basics by developing general algorithmic prediction models for supervised machine learning. Covers additive models, CARTs, bagging/boosting, and basic deep learning approaches. Discussion of unsupervised learning techniques, including clustering and dimensionality reduction approaches.

Requisites: GEN BUS 886**Course Designation:** Grad 50% – Counts toward 50% graduate coursework requirement**Repeatable for Credit:** No**Learning Outcomes:** 1. Build machine learning models for the purpose of prediction, choosing from a variety of approaches. Audience: Graduate

2. Tune models to optimize predictive performance. Audience: Graduate

3. Evaluate and compare prediction accuracy of regression and classification models. Audience: Graduate

4. Identify more advanced literature on machine learning and be able to develop skills in self-study. Audience: Graduate

GEN BUS 891 – TEXT MINING AND GENERATION FOR BUSINESS ANALYTICS

2 credits.

An introduction to text mining and generation for business applications. Includes an overview of text data and approaches for making text data useful for descriptive and predictive analytics. Also, includes key applications of natural language processing, such as chatbots and recommender systems.

Requisites: GEN BUS 883 and 888**Course Designation:** Grad 50% – Counts toward 50% graduate coursework requirement**Repeatable for Credit:** No**Learning Outcomes:** 1. Retrieve, assemble, and clean text data for use in analytics applications. Audience: Graduate

2. Use text representation approaches, including bag of words, for visualizing text data. Audience: Graduate

3. Build classification and regression models using features created from text data. Audience: Graduate

4. Explain and experiment with text generation using artificial intelligence (AI). Audience: Graduate

GEN BUS 893 – ANALYTICS CONSULTING PROJECT MANAGEMENT

2 credits.

Lays the foundation for understanding how to engage with external and internal clients and manage a business analytics consulting project. Covers consulting tools and models, as well as traditional and agile project management tools and concepts.

Requisites: Graduate/professional standing or declared in graduate Business Exchange program**Course Designation:** Grad 50% – Counts toward 50% graduate coursework requirement**Repeatable for Credit:** No**Learning Outcomes:** 1. Apply a Situation–Complication–Question (SCQ) framework to a business problem Audience: Graduate

2. Use answer–first principles and storyboarding techniques Audience: Graduate

3. Scope a project and understand customer needs Audience: Graduate

4. Manage time and resources in a project Audience: Graduate

5. Differentiate between traditional and agile project management approaches Audience: Graduate

GEN BUS 894 – PITFALLS, ETHICS, COMMUNICATION, AND LEADERSHIP IN BUSINESS ANALYTICS

2 credits.

Focus on applications, highlighting key practical issues in analytics projects. Discussion of pitfalls with regards to analytics applications, ethical aspects of analytics applications, as well as talent management and leadership in the context of analytics.

Requisites: GEN BUS 883 and 888**Course Designation:** Grad 50% – Counts toward 50% graduate coursework requirement**Repeatable for Credit:** No**Learning Outcomes:** 1. Recognize potential warning signs of predictive models failing or overpromising. Audience: Graduate

2. Engage with ethical issues concerning analytics applications regarding autonomy, beneficence, and fairness. Audience: Graduate

3. Audit algorithms/predictions for potential biases. Audience: Graduate

4. Make strategic choices among analytics projects, including effective management of human resources. Audience: Graduate

GEN BUS 895 – MASTERS CAPSTONE IN BUSINESS ANALYTICS

2 credits.

Complete a team project as a capstone to graduate studies in business analytics. Use analytics and project management to develop a solution to a provided business case.

Requisites: GEN BUS 884 and 893

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: No

Learning Outcomes: 1. Develop and communicate an analytics solution to a business challenge or opportunity. Audience: Graduate

2. Apply principles of project management to a business analytics project. Audience: Graduate

3. Reflect on a team-based analytics project and identify lessons learned. Audience: Graduate

GEN BUS 933 – BEGINNING A RESEARCH CAREER IN BUSINESS

1 credit.

Required of incoming students in the Wisconsin School of Business PhD program. Students are often overwhelmed and do not absorb material when offered all at once before they begin their regular courses. This format offers fundamental content about conducting research and academic life that is not specific to a given department in the business school, but will help to frame and motivate other studies. This format gives students more time to absorb the content at a point when they can better see how it applies to them.

Requisites: Declared in Business PHD

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: No

Last Taught: Fall 2023

GEN BUS 999 – READING AND RESEARCH-BUSINESS RESEARCH PHD

1-6 credits.

Individual work suited to the needs of Ph.D. students may be arranged.

Requisites: Consent of instructor

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: Yes, unlimited number of completions

Last Taught: Summer 2001