SCHOOL OF BUSINESS AND ECONOMICS

Mission Statement

The School of Business and Economics (https://www.uwsuper.edu/academics/academic-departments/school-of-business-and-economics/) works toward developing effective decision-makers and leaders in both the private and public sectors through a strong practical business education as well as a comprehensive liberal arts education. Academic programs instill excellence, build confidence, and develop strong leadership skills that graduates can use throughout their careers.

Faculty and Staff

Christensen, Ethan - Assistant Professor
Mahjabeen, Rubana - Associate Professor
Mahmud, Sakib - Associate Professor
Starik, Mark - Adjunct Professor

Degrees

- Data Science (http://catalog.uwsuper.edu/graduate/academic-departments/business-economics/data-science/)
- Health and Wellness Management (http://catalog.uwsuper.edu/graduate/academic-departments/business-economics/health-wellness-management/)
- Sustainable Management (http://catalog.uwsuper.edu/graduate/academic-departments/business-economics/sustainable-management/)

Certificates

- Graduate Certificate in Climate Leadership (http://catalog.uwsuper.edu/graduate/academic-departments/business-economics/graduate-certificate-in-climate-leadership/)
- Graduate Certificate in Environmental, Social, & Governance (http://catalog.uwsuper.edu/graduate/academic-departments/business-economics/graduate-certificate-in-environmental-social-and-governance/)
- Sustainability & Wellbeing Certificate (http://catalog.uwsuper.edu/graduate/academic-departments/business-economics/sustainability-wellbeing/)

Course Descriptions

Data Science

DS 700 Foundations of Data Science   3.00
This course provides an introduction to data science and highlights its importance in business decision making. It provides an overview of commonly used data science tools along with spreadsheets, databases, statistics and programming assignments to lay the foundation for data science applications.
Prerequisites:
Admission to M.S. in Data Science program

Typically Offered:
- Fall and Spring Terms

DS 705 Statistical Methods   3.00
Statistical methods and inference procedures will be presented in this course with an emphasis on applications, computer implementation, and interpretation of results. Topics include simple and multiple regression, model selection, correlation, moderation/interaction analysis, logistic regression, chi-square test, ANOVA, Kruskal-Wallis test, MANOVA, factor analysis, and canonical correlation analysis.
Prerequisites:
Successful completion of DS 700 and Admissions to M.S. in Data Science program

Typically Offered:
- Fall and Spring Terms

DS 710 Programming for Data Science   3.00
Introduction to programming languages and packages used in Data Science.
Prerequisites:
Admission to M.S. in Data Science program

Typically Offered:
- Fall and Spring Terms

DS 715 Data Warehousing   3.00
Introduce the concepts and techniques to work with and reason about subject-oriented, integrated, time-variant, and nonvolatile collections of data in support of management's decision-making process.
Prerequisites:
Admission to M.S. in Data Science program

Typically Offered:
- Fall and Spring Terms

DS 730 Big Data: High Performance Computing   3.00
This course will teach students how to process large datasets efficiently. Students will be introduced to non-relational databases. Students will learn algorithms that allow for the distributed processing of large data sets across clusters.
Prerequisites:
Successful completion of DS 710 and declared Data Science Major

Typically Offered:
- Fall and Spring Terms

DS 735 Communicating about Data   3.00
This course will prepare you to master technical, informational and persuasive communication to meet organizational goals. Technical communication topics include a study of the nature, structure and interpretation of data. Informational communication topics include data visualization and design of data for understanding and action. Persuasive communication topics include the study of written, verbal and nonverbal approaches to influencing decision makers.
Prerequisites:
Admission to M.S. in Data Science program

DS 740 Data Mining & Machine Learning   3.00
This course covers two aspects of data analytics. First, it teaches techniques to generate visualizations appropriate to the audience type, task, and data. Second, it teaches methods and techniques for analyzing unstructured data - including text mining, web text mining and social network analysis.
Prerequisites:
Successful completion of DS 700 & DS 710 and Admissions to M.S. in Data Science program

Typically Offered:
  • Fall and Spring Terms

DS 745 Visualization and Unstructured Data Analysis   3.00
This course covers two aspects of data analytics. First, it teaches techniques to generate visualizations appropriate to the audience type, task, and data. Second, it teaches methods and techniques for analyzing unstructured data - including text mining, web text mining and social network analysis.
Prerequisites:
Successful completion of DS 740 and Admission to the M.S. Data Science program

Typically Offered:
  • Fall and Spring Terms

DS 760 Ethics of Data Science   3.00
This course will focus on the investigation of ethical issues in computer science that ultimately also pertain to data science, including privacy, plagiarism, intellectual property rights, piracy, security, confidentiality and many other issues. Our study of these issues will begin broadly, with a look at ethical issues in computer science at large. We will then make inferences to the narrower field of data science. We will consider ethical arguments and positions, the quality and integrity of decisions and inferences based on data and how important cases and laws have shaped the legality, if not the morality, of data science related computing. Case studies will be used to investigate issues.
Prerequisites:
Successful completion of DS 740 and Admission to the M.S. Data Science program

Typically Offered:
  • Fall and Spring Terms

DS 775 Prescriptive Analytics   3.00
This course covers procedures and techniques for using data to inform the decision-making process. Topics include optimization, decision analysis, game theory, and simulation. Case studies and applications will be emphasized.
Prerequisites:
Successful completion of DS 705 and DS 710 and Declared DS Major

Typically Offered:
  • Fall and Spring Terms

DS 776 Deep Learning   3.00
Introduction to the theory and applications of deep learning. The course begins with the study of neural networks and how to train them. Various deep learning architectures are introduced including convolutional neural networks, recurrent neural networks, and transformers. Applications may include image classification, object detection, and natural language processing. Algorithms will be implemented in Python using a high-level framework such as Pytorch or TensorFlow.
Prerequisites:
Prerequisite for enrollment in DS 776 is successful completion of DS 740

Typically Offered:
  • Online: Fall & Spring

DS 780 Data Science and Strategic Decision Making   3.00
The interaction between data science and strategic decision making. Leveraging data resources for competitive advantage in the marketplace.
Prerequisites:
Admission to M.S. in Data Science program

Typically Offered:
  • Fall and Spring Terms

DS 785 Data Science Capstone   3.00
Capstone course; students will develop and execute a data science project using real-world data and communicate results to a non-technical audience.
Prerequisites:
Successful completion of Data Science 700, 705, 710, 715, 730, 735, 740, 745 & 775

Typically Offered:
  • Fall and Spring Terms

Health & Wellness Management

HWM 700 Contemporary Health and Wellness Perspectives   3.00
Explore the determinants of health, health equity, and best practices in fostering holistic well-being. Students will use evidence-informed approaches to effectively promote individual and organizational well-being culture through multiple communication modalities. Explore the expectations and development of wellness professionals as agents of change.
Prerequisites:
Admission to MS in Health and Wellness Program

Typically Offered:
  • Fall and Spring Terms

HWM 705 Strategic Management for Wellness Managers   3.00
Determine an organization's strategic direction by evaluating the external environment and stakeholder needs, and taking inventory of what internal resources and capabilities are necessary. Use this information to establish specific actions, organizational structure and systems, ethical implications and the inclusive culture needed to achieve organizational goals.
Prerequisites:
Admission to MS in Health and Wellness Program

Typically Offered:
  • Fall and Spring Terms

HWM 710 Research and Data Analysis for Wellness Programs   3.00
Prepares students collecting and analyzing data and evaluating research for designing wellness programs. Students will: 1) identify the health and wellness needs of diverse audiences, 2) collect and evaluate data. Students will identify and utilize analytical tools for a given issue and consider the ethical implications of using these methods.
Prerequisites:
Admission to MS in Health and Wellness Program

HWM 715 Professional Communication for Wellness Managers   3.00
Understand the role of effective communication in health and wellness management. Apply multiple communication skills and tools tailored to a target audience to bring about change in an organizational or community context.
Prerequisites:
Admission to MS in Health and Wellness Program

HWM 725 Evidence Based Practice in Health and Wellness   3.00
Discover what evidence-based practice is and why it matters for health and wellness professionals. The course provides procedures and tools to explore reliable information about health determinants and intervention approaches (physical, mental, and social well-being). The course provides a practical application of the stages of evidence-based practice.
Prerequisites:
Admission to MS in Health and Wellness Program

Typically Offered:
  • Online: Fall & Spring

HWM 730 Holistic Aspects of Health   3.00
This course examines current population health issues by analyzing their biological, psychological, and social-environmental determinants. Taking a holistic focus, students apply evidenced-based approaches in health psychology. Students learn how to create and deliver effective evidence-informed messaging to address these issues and positively impact health outcomes.
Prerequisites:
Admission to MS in Health and Wellness Program

Typically Offered:
  • Fall and Spring Terms

HWM 740 Health Systems and Policy for Wellness Managers   3.00
This course provides information pertaining to the US Health Care system with emphasis on health and wellness. It provides an overview of the major public and private stakeholders including public health, insurance, and health care providers. Participants will examine how health policy impacts the design and financing of wellness programs.
Prerequisites:
Admission to MS in Health and Wellness Program

Typically Offered:
  • Fall and Spring Terms

HWM 750 Planning and Evaluation for Wellness Managers   3.00
Examine and planning, implementation, and evaluation of wellness programs as inter-related, cyclical activities. Students will implement the major strategic activities and processes involved in planning and evaluating wellness programs, aiming to foster a culture of well-being within diverse environments.
Typically Offered:
  • Fall and Spring Terms

HWM 755 Health Policy and Action   3.00
Students will examine the role of government agencies in shaping health policy and health equity. Students will analyze current federal, state, and local regulations and impacts on health outcomes as well as understand healthcare systems and insurance. Students will evaluate potential providers and contracts. An emphasis will be placed on ethical principles, social responsibility and diversity, equity, and inclusion (DEI).
Prerequisites:
Admission to MS in Health and Wellness Program

HWM 760 Wellness Law   3.00
This course introduces students to the legal and ethical environment of wellness management. Topics include the Affordable Care Act, Americans with Disabilities Act and HIPAA. Students will learn effective negotiation skills that can be used when dealing with contracts and vendors.
Prerequisites:
Admission to MS in Health and Wellness Program

Typically Offered:
  • Fall and Spring Terms

HWM 770 Human and Group Behavior   3.00
Explore why people and groups behave as they do. Interpret evidence from well-designed research studies and ethical practices to examine the integration of health and wellness initiatives. Analyze organizational design (micro-, mid-, and macro-level) and human behavior to more effectively engage stakeholders and promote a culture of well-being.
Prerequisites:
Admission to MS in Health and Wellness Program

Typically Offered:
  • Fall and Spring Terms

HWM 787 Capstone Preparation   1.00
This course provides the opportunity for students to prepare for their semester-long capstone project. Students will identify a partner organization with whom they can collaborate for completion of their capstone project the following or a subsequent semester. Students will develop a project proposal designed to synthesize and apply information from the Master of Science in Health and Wellness Management curriculum and meet the needs and interests of the partner organization.
Prerequisites:
Prerequisite for enrolling in HWM 787 is completion of 18 credits or MS HWM Director consent

Typically Offered:
  • Online: Fall or Spring, Summer

HWM 790 Health and Wellness Management Capstone Course   3.00
This course provides a cohesive experience designed to synthesize and apply information from the MS HWM curricula. Students complete an individual capstone experience that demonstrates thorough understanding of the knowledge, skills and disposition necessary to be a successful health and wellness manager.
Prerequisites:
Prerequisite to enroll in HWM 790 is completion of HWM 787

Typically Offered:
  • Fall and Spring Terms

Sustainable Management

SMGT 700 Cultural and Historical Foundations of Sustainability   3.00
The changing relationships of humans to the natural environment; changes in dominant scientific perspectives and the process of scientific debate. The quest for understanding, manipulating, and dominating the natural world. Cultural and organizational structures; the role and impact of technology; the systems approach to problem solving and its implications for the future.
Prerequisites:
Admission to M.S. in SMGT Program.

Typically Offered:
  • Fall and Spring Terms

SMGT 710 The Natural Environment   3.00
Natural cycles, climate, water, energy, bio-systems, eco-systems, the role of humans in the biosphere; human impacts on natural systems. Use of case studies; some pre-reading, carbon cycle as a unifying theme. Disturbance pollution and toxicity; carrying capacity; natural capital.
Prerequisites:
Admission to M.S. in SMGT Program.

Typically Offered:
  • Fall and Spring Terms

SMGT 720 Applied Research and the Triple Bottom Line   3.00
Document and project internal and external costs resulting from the inseparability of the natural, social and economic environments. Assess sustainability issues using basic modeling techniques; cause and effect, root cause analysis, regression analysis and business scenario based cases.
Prerequisites:
Admission to M.S. in SMGT Program.

Typically Offered:
  • Fall and Spring Terms

SMGT 730 Policy, Law and Ethics of Sustainability   3.00
The Law and Ethics regarding sustainability of Economic development and emerging environmental challenges at national and international levels; including National Environmental Policy Act (NEPA), Carbon Footprints, Kyoto protocol, and Brundtland Commission. The policy and role of government and its agencies such as Army Corps of Engineers; Department of Interior, etc., in building a more just, prosperous, and secure environmental common future.
Prerequisites:
Admission to M.S. in SMGT Program.

Typically Offered:
  • Fall and Spring Terms

SMGT 740 Economics of Sustainability   3.00
Understand the economy as a component of the ecosystem within which it resides, with natural capital added to the typical analysis of human, social, built, and financial capital. Explore traditional micro, macro, and international trade theory and policy and the implications of sustainability. Topics include: history of economic systems and thought; globalization and localization; distinguishing between growth and development; the nature and causes of market failure; consumption, consumerism, and human well-being; emerging markets; technological change; business organization and financial market alternatives; demographic change; and the global food economy.
Prerequisites:
Admission to M.S. in SMGT Program.

Typically Offered:
  • Fall and Spring Terms

SMGT 750 The Built Environment   3.00
Explore how the built environment came to be and the intersection of human needs: water, air, food, water, waste, transportation, healthcare and education. Evaluate community design: what does a sustainable community look like? Study related technologies and evaluate alternatives, discuss unintended consequences. Course will include case studies.
Prerequisites:
Admission to M.S. in SMGT Program.

Typically Offered:
  • Fall and Spring Terms

SMGT 760 Geopolitical Systems   3.00
An examination of decision making and public policy for sustainability at the national, state, and local level, with emphasis on the social, economic, political factors affecting decisions within both the public and private sectors. Attention is given to formal American policy making processes, informal grassroots activities and consensus building, public engagement with sustainability decisions, corporate sustainability actions and reporting, the promise of public-private partnerships and collaborative decision making, and practical examples of how decision making fosters effective transitions to sustainability goals at all levels.
Prerequisites:
Admission to M.S. in SMGT Program.

Typically Offered:
  • Fall and Spring Terms

SMGT 770 Leading Sustainable Organizations   3.00
A macro-level perspective on leading sustainable organizations. Topics addressed include: organizational change and transformation processes, strategic and creative thinking, organizational structures and their impacts, conflict management and negotiation, stake holder management and situational leadership styles and behaviors. Focuses on how organizational leaders develop and enable sustainable organizations, especially in times of environmental change.
Prerequisites:
Admission to M.S. in SMGT Program.

Typically Offered:
  • Fall and Spring Terms

SMGT 780 Corporate Social Responsibility   3.00
Corporate social responsibility and an organization. Evaluation of risks and potential impacts in decision making recognizing the links between the success of an organization and the well being of a community. Integrating corporate social responsibility throughout an organization, creating metrics and communicating CSR policies internally and externally. Development of best practices in an organization pertaining to corporate social responsibility.
Prerequisites:
Admission to M.S. in SMGT Program.

Typically Offered:
  • Fall and Spring Terms

SMGT 782 Supply Chain Management   3.00
Planning, organizing and controlling the organization's supply chain is examined in context of the triple bottom line. Total cost analyses or product and process life cycles are considered in the context of strategy and operations. Topics include: sourcing, operations, distribution, reverse logistics and service supply chains. Process measurements and the impact on organizational performance in the context of footprints (e.g. carbon, water, pollution). Discussion of existing and potential software systems.
Prerequisites:
Admission to M.S. in SMGT Program.

Typically Offered:
  • Fall and Spring Terms

SMGT 784 Sustainable Water Management   3.00
This course addresses practical applications of sustainability in aquatic environments. Topics covered include water and health, water quality and quantity, governance, assessing the aquatic environment, water treatment technologies, environmental mitigation, and impacts of climate change. Emphasis will be on selected areas of interest from the perspective of public health, engineering, and municipal conservation management.
Prerequisites:
Admission to M.S. in SMGT Program.

SMGT 785 Waste Management and Resource Recovery   3.00
Topics include the generation, processing, management and disposal of municipal, industrial and agricultural waste with an emphasis on the technical, economic and environmental aspects of various recovery processes. Additional topics will include producer responsibility, design for environment and life cycle analysis.
Prerequisites:
Admission to M.S. in SMGT Program.

Typically Offered:
  • Fall and Spring Terms

SMGT 786 Climate Change   3.00
In this course, you will explore climate change through scientific, humanistic, and sustainability frameworks. After building a strong foundation in the causes, impacts, and study of climate change, you will apply this understanding to evaluate scientific communication, environmental justice and vulnerability, and environmental policy to find solutions and strategies to address anthropogenic climate change.
Prerequisites:
Admission to M.S. in SMGT Program.

Typically Offered:
  • Spring Term Only

SMGT 790 Capstone Preparation Course   1.00
Research, data analysis, scholarly inquiry resulting in project proposal.
Prerequisites:
Admission to M.S. in SMGT Program.

Typically Offered:
  • Fall and Spring Terms

SMGT 792 Capstone Project   3.00
Completion of approved project utilizing concepts from coursework.
Prerequisites:
Admission to M.S. in SMGT Program.

Typically Offered:
  • Fall and Spring Terms

SMGT 795 Special Topics in Sustainable Management   1.00-3.00
Various specialized areas of sustainable management will be examined. This course may be repeated for credit with a different topic.
Prerequisites:
Admission to M.S. in SMGT Program.

Typically Offered:
  • Occasional by Demand

SMGT 799 Study Abroad   3.00
Study abroad courses are conducted in various parts of the world and are led by one or more faculty members. This course may be repeated in different locations.
Prerequisites:
Admission to M.S. in SMGT Program.

Typically Offered:
  • Occasional by Demand

Contact Information

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