WEATHERHEAD SCHOOL OF MANAGEMENT

Peter B. Lewis Building
http://weatherhead.case.edu/
Phone: 216.368.2030

Weatherhead School of Management spans the entire spectrum of research and learning from Appreciative Inquiry (AI) to Artificial Intelligence (AI). Weatherhead's more than 1,400 students study undergraduate, graduate and doctoral programs in the Peter B. Lewis Building. Weatherhead's Executive Education programs engage more than 3,000 people annually and offer the latest in leadership development programs to help individuals at all stages of their careers grow in their profession. Our Fowler Center for Business as an Agent of World Benefit brings students together with an international network of educators, researchers and practitioners who incorporate social and global issues into business innovation and social entrepreneurship.

Through innovative curriculum in data-driven management, Weatherhead continues to position graduates for high-demand jobs that connect business with analytics and technology in a rapidly changing world. STEM Masters degrees for MBA, Accounting, Business Analytics, Finance and Operations Research/Supply Chain immerse students with in-demand technical knowledge, such as big data, artificial intelligence and blockchain technology, that is essential for a competitive business career.

As a management school within a top research university, Weatherhead's faculty members are committed to expanding knowledge and contributing to global scholarship through their research. Weatherhead faculty pioneered concepts in Appreciative Inquiry, Emotional Intelligence competencies, Intentional Change Theory and Manage by Designing. Our faculty have extensive, real-world business experience and connections to business leaders which they leverage to help students learn and develop networks. Students have unique opportunities to work closely with our world-class faculty members.

Mission Statement

The Weatherhead School of Management has an enduring impact on business and society through cutting edge research and innovative teaching that prepares professionals for the marketplace of the future.

Vision

The Weatherhead School of Management is a leader in data driven, experiential, and market-based management education and research. We leverage our strengths from Appreciative Inquiry to Artificial Intelligence (AI to AI), empowering our graduates to solve complex problems and lead thriving organizations that do well by doing good.

Values

The Weatherhead School of Management proudly embraces our student-centered culture of excellence that promotes collaboration, inclusion, and diversity in all that we do.

- Student-Centered – We believe in our students and alumni being our true north, and promote their development, growth, and well-being.
- Excellence with Integrity – We act ethically and transparently with all our internal and external stakeholders to promote and reward a culture of inquiry and discovery that is driven by evidence-based innovation in our research, in our classroom experience, and in our community endeavors.
- Collaboration in Action – We act collegially within our WSOM community, the University, and with external partners to develop enduring and transformational knowledge across disciplines.
- Diversity with Inclusion – We value diversity of ideas, culture, and people to foster an inclusive, respectful, and supportive community of lifelong learners.

Brief History

In 1952, Western Reserve University established the School of Business by combining the Cleveland College Division of Business Administration and the Graduate School Division of Business Administration, and from its founding until 1988, the activities of the School of Business were divided among a number of buildings both in downtown Cleveland and in University Circle. In 1967, the merger of Case Institute of Technology and Western Reserve University created Case Western Reserve University, and the Western Reserve University School of Business absorbed Case's Division of Organizational Sciences to become the School of Management in 1970. Just six years later, the School of Management launched its full-time MBA.

In 1980, the School of Management was renamed in honor of Albert J. Weatherhead III, a Cleveland businessman and industrialist who represented the fourth generation of his family to carry on the Weatherhead name and values, including cultural and educational leadership. By 1999, the Weatherhead School of Management had developed a strong identity, growing out of its space in Enterprise Hall and requiring new construction. Funded by the philanthropist and entrepreneur whose name it bears, the Peter B. Lewis building, designed by renowned contemporary architect Frank Gehry and completed in 2002, was the answer. Located across the street from the George S. Dively Building, which houses Weatherhead Executive Education programs, the Lewis Building, featuring Gehry’s unmistakable sculptural profile and gleaming stainless steel roof, both sets the school apart from its surroundings and, quite literally, reflects the prestigious neighborhood of the school. Gehry redefined the way a business school should look, just as Weatherhead redefines the way management education should take place.

Accreditation

The programs of the Weatherhead School of Management have been fully accredited by the Association to Advance Collegiate Schools of Business (AACSB) International since 1958.

Administration

Manoj K. Malhotra, PhD
(Ohio State University)
Dean, Weatherhead School of Management; Albert J. Weatherhead III Professor of Management; Professor, Operations

Gregory Jonas, PhD, CMA
(Virginia Commonwealth University)
Senior Associate Dean, Academics and Graduate Programs; Associate Professor, Accountancy

Leonardo Madureira, PhD
(University of Pennsylvania)
Associate Dean, Research and Faculty; Deborah and David Daberko Fellow; Professor, Banking and Finance
Jennifer Johnson, MBA
Associate Dean, Undergraduate and Integrated Programs; Associate Professor, Design & Innovation

Sharon Martin, MBA, CPA
Associate Dean, Finance and Administration; Associate Professor, Accountancy

Shirley Leonard, MBA
Associate Dean, External Relations

Jim Hurley, MEd, MSEd
Assistant Dean, Undergraduate and Integrated Programs

Tiffany Schwendeman, MAcc, MBA
Assistant Dean, Curriculum and Administration, Master of Accountancy

Deborah Bibb, MBA
Executive Director Enrollment, Career Development and Student Experience

Anna Frolova-Levi, MBA
Executive Director, Recruitment and Placement

Christine Kush, MBA, MPA
Executive Director, Executive Education

Department Chairs
Diana Bilimoria, PhD
(University of Michigan)
KeyBank Professor; Chair and Professor, Organizational Behavior

CNV Krishnan, PhD
(University of Wisconsin-Madison)
Chair and Professor, Banking and Finance; Faculty Director, MSM-Finance

Kalle Lyytinen, PhD
(University of Jyvaskyla)
Distinguished University Professor; Iris S. Wolstein Professor of Management Design; Faculty Director, DM Program; Chair and Professor, Design & Innovation

Kamlesh Mathur, PhD
(Case Western Reserve University)
Chair and Professor, Operations; Faculty Co-director, MSM-Business Analytics; Faculty Co-director, Master of Engineering and Management

Thomas King, DM, CPA, CMA
(Case Western Reserve University)
Chair and Professor, Accountancy; Faculty Director, Master of Accountancy

Mark Votruba, PhD
(Princeton University)
Chair and Associate Professor, Economics; Faculty Director, MSM-Healthcare

Undergraduate Programs

DEGREES AND MAJORS

BS Accounting
BA Economics
BS Management with Major(s) in:

1. Business Management with one or more concentration(s) in:
   a. Business Information Technology
   b. Healthcare Management
   c. Innovation & Entrepreneurship
   d. International Business
   e. Organizational Leadership
   f. Supply Chain Management

2. Finance
3. Marketing
4. Dean's Approved

Bachelor of Science (BS) in Accounting
The accounting profession demands a high degree of technical training, similar to the professions of architecture, law, engineering and medicine, and a broad knowledge of the fundamentals of economics and business with a commitment to public well-being. Career opportunities in accounting include the public, corporate, government, nonprofit and healthcare sectors. The undergraduate program in accountancy is designed to prepare students for entrance into these careers and to provide a foundation for the examination to become a CPA or to achieve other professional certifications. Each state Board of Accountancy (https://www.nasba.org/stateboards/) has its own eligibility requirements for taking the CPA exam. Students pursuing a BS in Accounting should consult the Board of Accountancy (https://www.nasba.org/stateboards/) website for the state in which they plan to sit for the CPA examination in order to determine specific course requirements.

As part of the sequence of courses leading to the BS in Accounting offered through Weatherhead, the student takes required and elective courses in related fields of banking and finance, economics, marketing, organizational behavior and operations.

General Education Requirements

SAGES Requirements
First Seminar 4
Two University Seminars 6

Departmental Seminars - taken as MGMT 395, see Core Requirements
Senior Capstone ‡ 3-6

Breadth Requirements
Mathematical Sciences Part 1 4

MATH 125 or MATH 121
Math and Calculus Applications for Life, Managerial, and Social Sci I
Mathematics for Science and Engineering I

Mathematical Sciences Part 2 3-4

DESN 210 or CSDS 132 or ENGR 131 or MATH 122 or MATH 126
Introduction to Programming for Business Applications
Introduction to Programming in Java
Elementary Computer Programming
Calculus for Science and Engineering II
Math and Calculus Applications for Life, Managerial, and Social Sci II

Two Natural Science Courses 6-8
Two Arts & Humanities Courses  6-8
Two Social Science Courses  6
Total Units  38-46

Degree Requirements

Principles Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>ACCT 101</td>
<td>Introduction to Financial Accounting</td>
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<tr>
<td>ACCT 102</td>
<td>Management Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ECON 102</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 103</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>OPRE 207</td>
<td>Statistics for Business and Management Science</td>
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</table>

Core Requirements

<table>
<thead>
<tr>
<th>Course</th>
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<tr>
<td>BAFI 355</td>
<td>Corporate Finance</td>
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<tr>
<td>MGMT 201</td>
<td>Contemporary Business and Communication</td>
<td>3</td>
</tr>
<tr>
<td>MKMR 201</td>
<td>Marketing Management</td>
<td>3</td>
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<tr>
<td>OPRE 301</td>
<td>Operations Research and Supply Chain Management</td>
<td>3</td>
</tr>
<tr>
<td>ORBH 250</td>
<td>Leading People (LEAD I)</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 395</td>
<td>Advanced Seminar</td>
<td>3</td>
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</table>

Open Electives

Electives  19-27
Total Units  52-60

Major Requirements

Students who desire a Secondary Major in Accounting should consult with a Weatherhead academic advisor.

<table>
<thead>
<tr>
<th>Course</th>
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<th>Units</th>
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<tbody>
<tr>
<td>ACCT 207</td>
<td>Excel and Accounting Analytics Technology</td>
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</tr>
<tr>
<td>ACCT 300</td>
<td>Corporate Reporting I</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 301</td>
<td>Corporate Reporting II</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 305</td>
<td>Income Tax: Concepts, Skills, Planning</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 306</td>
<td>Accounting Information Systems - Basic</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 307</td>
<td>Applied Analytics for Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 314</td>
<td>Attestation and Assurance Services</td>
<td>3</td>
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<tr>
<td>BLAW 331</td>
<td>Legal Environment of Management</td>
<td>3</td>
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</tbody>
</table>

Total Units  24

Total Credit Hours for Degree: 122

* Students must complete three one-credit-hour MGMT 395 offerings each of a different topic.

‡ Students must complete one university-approved SAGES Senior Capstone. It is not required that students complete a Weatherhead-specific capstone. Most students choose to take MGMT 398 Action Learning, although a second option within Weatherhead is MGMT 397 Undergraduate Research Project.

Students pursuing the BS in Accounting are advised to take the two introductory classes, ACCT 101 Introduction to Financial Accounting and ACCT 102 Management Accounting, and ACCT 207 Excel and Accounting Analytics Technology as early as possible. Students are advised to take ORBH 250 Leading People (LEAD I) in the second year and MGMT 201 Contemporary Business and Communication as early as possible.

Twelve credit hours of accounting coursework taken at another accredited institution may be considered for transfer toward the BS in Accounting, although transfer credit for courses must be approved by the Accountancy Department. Each student is required to consult with an advisor in the Office of Undergraduate and Integrated Study Programs at Weatherhead.

For more information, contact Tiffany Schwendeman (tiffany.schwendeman@case.edu), assistant dean of undergraduate and integrated study programs, at 216.368.2058.

Integrated Study Program in Accountancy

Undergraduate students at Case Western Reserve University have the unique opportunity to pursue both the Bachelor of Arts (BA) or Bachelor of Science (BS) and the Master of Accountancy through the BA/BS and Master of Accountancy Integrated Study Program. The Integrated Study program allows students to complete both degrees in four or five years. For students majoring in accounting, both degrees are most commonly completed in four-and-a-half years or nine academic semesters. All Case Western students must apply for and be admitted to the MAcc program, although certain requirements are waived, such as the Graduate Management Admission Test (GMAT) or the Graduate Record Examinations (GRE). Because of the necessity for proper planning of coursework, undergraduate students are strongly encouraged to apply for the MAcc in their junior year.

The Integrated Study program is strongly recommended for those individuals planning to obtain professional certification as a certified public accountant (CPA). CPA candidates must have completed 150 semester hours of study at the university level in order to qualify to sit for the CPA examination. The integrated program saves qualified students both time and money while equipping students with the skills and knowledge attractive to top accounting firms.

For more information, contact Tiffany Schwendeman (tiffany.schwendeman@case.edu), assistant dean of undergraduate and integrated study programs, at 216.368.2058.

Early Admission to the Integrated Study Program in Accountancy

Each year, approximately 10 to 15 exceptionally well-qualified high school seniors who plan to pursue careers in accountancy will be offered Early Admission to the Integrated Study Program in Accountancy (https://weatherhead.case.edu/degrees/undergraduate/academics/accounting/integrated-program/) at Case Western Reserve University. Early admits receive a conditional commitment of admission to the Weatherhead School of Management Master of Accountancy (https://weatherhead.case.edu/degrees/masters/m-accountancy/) program and a scholarship package covering a minimum of 50% of an academic year’s tuition cost to be honored when students formally enroll as a graduate student. Students are required to maintain a minimum undergraduate GPA of 3.2 overall and in accountancy courses. Those who achieve higher grade point averages will be eligible for greater scholarship amounts.
Practicum Program

The practicum program (https://case.edu/postgrad/experiential-education/practicum/) is a planned, structured, supervised workplace experience at an approved "site" organization. The practicum is an experiential learning arrangement between the student, the employer and the practicum adviser in conjunction with the Office of Post-Graduate Planning and Experiential Education. Employers provide appropriate supervision and work-related learning while the practicum adviser guides and evaluates the student’s experience. The primary goal of this active learning experience is the intellectual, personal and professional growth of the student in an area related to the student’s academic goals. The practicum should provide the student with new skills, insights and experiences that are transferable to the academic setting.

Students apply to the Office of Post-Graduate Planning and Experiential Education in the semester preceding the work assignment and may participate in up to two practicums. All practicums developed through the University Career Center must be taken for transcript notation, and students must have a faculty member serve as a practicum advisor. If a student elects to work in an internship/practicum without enrolling in the course for academic notation, he or she will not have the benefits of full-time student status. Additionally, he or she will not represent the practicum program in any official capacity.

Sample Plan of Study: BS in Accounting

<table>
<thead>
<tr>
<th>First Year</th>
<th>Units</th>
<th>Fall</th>
<th>Spring</th>
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<tbody>
<tr>
<td>SAGES First Seminar</td>
<td>4</td>
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<tr>
<td>Math and Calculus Applications for Life, Managerial, and Social Sci I (MATH 125)</td>
<td>4</td>
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<tr>
<td>Introduction to Financial Accounting (ACCT 101)</td>
<td>3</td>
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<tr>
<td>Principles of Microeconomics (ECON 102)</td>
<td>3</td>
<td></td>
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</tr>
<tr>
<td>Arts &amp; Humanities</td>
<td>3</td>
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<tr>
<td>PHED (Physical Education)</td>
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<tr>
<td>SAGES University Seminar</td>
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<tr>
<td>Management Accounting (ACCT 102)</td>
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<td>Excel and Accounting Analytics Technology (ACCT 207)</td>
<td>3</td>
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<td>Principles of Macroeconomics (ECON 103)</td>
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<tr>
<td>PHED (Physical Education)</td>
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<tr>
<td>Contemporary Business and Communication (MGMT 201)</td>
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<th>Second Year</th>
<th>Units</th>
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<th>Spring</th>
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<tbody>
<tr>
<td>SAGES University Seminar</td>
<td>3</td>
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<tr>
<td>Corporate Reporting I (ACCT 300)</td>
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<td>Statistics for Business and Management Science I (OPRE 207)</td>
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<tr>
<td>Leading People (LEAD I) (ORBH 250)</td>
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<tr>
<td>Natural Science</td>
<td>3</td>
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<tr>
<td>Corporate Reporting II (ACCT 301)</td>
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<tr>
<td>Corporate Finance (BAFI 355)</td>
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Introduction to Programming for Business Applications (DESN 210) 3
Arts & Humanities 3
Elective 3
Year Total: 15 15

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<th>Third Year</th>
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<td>Income Tax: Concepts, Skills, Planning (ACCT 305)</td>
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<td>Operations Research and Supply Chain Management (OPRE 301)</td>
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<tr>
<td>Advanced Seminar (MGMT 395)</td>
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<tr>
<td>Natural Science</td>
<td>3</td>
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<tr>
<td>Elective</td>
<td>3</td>
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<tr>
<td>Elective</td>
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<tr>
<td>Attestation and Assurance Services (ACCT 314)</td>
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<td>Legal Environment of Management (BLAW 331)</td>
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<tr>
<td>Advanced Seminar (MGMT 395)</td>
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<tr>
<td>Social Science</td>
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<tr>
<td>Elective</td>
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<td>Year Total:</td>
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<th>Fourth Year</th>
<th>Units</th>
<th>Fall</th>
<th>Spring</th>
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<tr>
<td>Accounting Information Systems - Basic (ACCT 306)</td>
<td>3</td>
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<tr>
<td>Advanced Seminar (MGMT 395)</td>
<td>1</td>
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</tr>
<tr>
<td>Social Science</td>
<td>3</td>
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<tr>
<td>Elective</td>
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<td></td>
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<tr>
<td>Elective</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
<td></td>
<td></td>
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<tr>
<td>Applied Analytics for Accounting (ACCT 307)</td>
<td>3</td>
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<tr>
<td>Action Learning (MGMT 398)</td>
<td>6</td>
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<tr>
<td>Elective</td>
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<tr>
<td>Year Total:</td>
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Total Units in Sequence: 122

Bachelor of Arts (BA) in Economics

(College of Arts and Sciences)

The BA in Economics is a 120-credit-hour, structured program in which students learn to analyze problems of resource allocation and decision making and to understand the influence of these factors on economies and societies.

Our highly regarded major attracts some of the best students on campus. Students have the opportunity to assist Weatherhead faculty in their research activities and to participate in independent research projects.
Bachelor of Arts (BA) in Economics concentration in Quantitative Methods  
*(College of Arts and Sciences)*

This major option (120-hours) emphasizes mathematical and empirical methods in economics, including development of strong quantitative and programming skills. The Quantitative Methods concentration is especially recommended for students who are highly interested in research and advanced study in Economics.

**General Degree Requirements**

Students are required to complete the Arts and Sciences General Education Requirements [here](http://bulletin.case.edu/undergraduateretstudies/casdegree/#sagesrequirementsforcollegeofartsandsciencestext).

Students who desire a Secondary Major in Economics should consult with a Weatherhead academic advisor.

**Major Requirements: Economics**

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<thead>
<tr>
<th>Course</th>
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<tr>
<td>MATH 121</td>
<td>Calculus for Science and Engineering I</td>
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<tr>
<td>or MATH 125</td>
<td>Math and Calculus Applications for Life, Managerial, and Social Sci I</td>
<td>4</td>
</tr>
<tr>
<td>ECON 102</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 103</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 307</td>
<td>Intermediate Macro Theory</td>
<td>3</td>
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<tr>
<td>ECON 308</td>
<td>Intermediate Micro Theory</td>
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<tr>
<td>or ECON 309</td>
<td>Intermediate Micro Theory: Calculus-Based</td>
<td>3</td>
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<tr>
<td>OPRE 207</td>
<td>Statistics for Business and Management Science I</td>
<td>3</td>
</tr>
<tr>
<td>or STAT 243</td>
<td>Statistical Theory with Application I</td>
<td>3</td>
</tr>
<tr>
<td>or STAT 312</td>
<td>Basic Statistics for Engineering and Science</td>
<td>3</td>
</tr>
<tr>
<td>or STAT 312R</td>
<td>Basic Statistics for Engineering and Science Using R Programming</td>
<td>3</td>
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<tr>
<td>ECON 326</td>
<td>Econometrics (Ideally, Econometrics should be taken by the junior year to enrich understanding of upper-level elective courses and to enable engagement in more sophisticated economic analysis.)</td>
<td>4</td>
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</table>

Econometrics courses (a minimum of five additional economics courses at the 200 or 300 level). ECON 398 Honors Research II does not count toward fulfilling this requirement.

Total Units: 38

**Major Requirements: Economics concentration in Quantitative Methods**

The Quantitative Methods concentration includes the requirements above, AND the following additional or alternative requirements:

<table>
<thead>
<tr>
<th>Course</th>
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<th>Units</th>
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<tbody>
<tr>
<td>MATH 122</td>
<td>Calculus for Science and Engineering II</td>
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<tr>
<td>or MATH 126</td>
<td>Math and Calculus Applications for Life, Managerial, and Social Sci I</td>
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<tr>
<td>ECON 309</td>
<td>Intermediate Micro Theory: Calculus-Based</td>
<td>3</td>
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Quantitative Methods - Any three of the following:

<table>
<thead>
<tr>
<th>Course</th>
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<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ECON 216</td>
<td>Data Visualization in R</td>
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</tr>
<tr>
<td>ECON 327</td>
<td>Advanced Econometrics</td>
<td>3</td>
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<tr>
<td>ECON 329</td>
<td>Game Theory: The Economics of Thinking Strategically</td>
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<tr>
<td>ECON 364</td>
<td>Economic Analysis of Business Strategies</td>
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<tr>
<td>ECON 380</td>
<td>Computational Economics</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives 9 units - At least 3 must be in economics at 200-level or 300-level, and at least 3 must be from non-economics electives menu below:

**Mathematics**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 201</td>
<td>Introduction to Linear Algebra for Applications</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 307</td>
<td>Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 223</td>
<td>Calculus for Science and Engineering III</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 224</td>
<td>Elementary Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 228</td>
<td>Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>MATH 304</td>
<td>Discrete Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 321</td>
<td>Fundamentals of Analysis I</td>
<td>3</td>
</tr>
</tbody>
</table>

**Advanced Empirical Methods in Business**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAFI 362</td>
<td>Advanced Financial Analytics</td>
<td>3</td>
</tr>
<tr>
<td>OPRE 301</td>
<td>Operations Research and Supply Chain Management</td>
<td>3</td>
</tr>
</tbody>
</table>

**Programming**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR 131</td>
<td>Elementary Computer Programming</td>
<td>3</td>
</tr>
<tr>
<td>DESN 210</td>
<td>Introduction to Programming for Business Applications</td>
<td>3</td>
</tr>
</tbody>
</table>

**Statistics**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 244</td>
<td>Statistical Theory with Application II</td>
<td>3</td>
</tr>
<tr>
<td>STAT 325</td>
<td>Data Analysis and Linear Models</td>
<td>3</td>
</tr>
<tr>
<td>STAT 326</td>
<td>Multivariate Analysis and Data Mining</td>
<td>3</td>
</tr>
<tr>
<td>CSDS 442</td>
<td>Causal Learning from Data</td>
<td>3</td>
</tr>
</tbody>
</table>

**NOTE:** ECON 395 and ECON 398 do not count towards electives (See information below on SAGES Senior Capstone).

**SAGES Senior Capstone: Economics**

The basic Economics major does not require a capstone as part of the major. However, students need to complete a capstone as part of the SAGES requirement. The Economics Department offers the following courses for a capstone:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 398</td>
<td>Honors Research II</td>
<td>3</td>
</tr>
<tr>
<td>ECON 395</td>
<td>The Economy in the American Century</td>
<td>3</td>
</tr>
<tr>
<td>ECON 399</td>
<td>Individual Readings and Research (upon approval of Senior Capstone Coordinator)</td>
<td>3-6</td>
</tr>
</tbody>
</table>
SAGES Senior Capstone: Economics concentration in Quantitative Methods
Required - 3 units:
ECON 395 The Economy in the American Century 3
or ECON 398 Honors Research II

For more information, contact Teresa Kabat (teresa.kabat@case.edu), department administrator, at 216.368.4110.

Bachelor of Science (BS) in Management

Graduates of the BS in Management degree program obtain a broad education that enables them to bring an unusual degree of analytical capability to the problems of management and business. Each student is required to complete an approved major program of study from the options outlined below. In addition, each student must consult with an advisor in the Office of Undergraduate and Integrated Study Programs at Weatherhead.

General Education Requirements

<table>
<thead>
<tr>
<th>SAGES Requirements</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>First Seminar</td>
<td>4</td>
</tr>
<tr>
<td>Two University Seminars</td>
<td>6</td>
</tr>
<tr>
<td>Departmental Seminars - taken as MGMT 395, see below*</td>
<td></td>
</tr>
<tr>
<td>Senior Capstone **</td>
<td>3-6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Breadth Requirements</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematical Sciences Part 1</td>
<td>4</td>
</tr>
<tr>
<td>MATH 125 Math and Calculus Applications for Life, Managerial, and Social Sci I</td>
<td></td>
</tr>
<tr>
<td>or MATH 121 Calculus for Science and Engineering I</td>
<td></td>
</tr>
<tr>
<td>Mathematical Sciences Part 2</td>
<td>3-4</td>
</tr>
<tr>
<td>DESN 210 Introduction to Programming for Business Applications</td>
<td></td>
</tr>
<tr>
<td>or CSDS 132 Introduction to Programming in Java</td>
<td></td>
</tr>
<tr>
<td>or ENGR 131 Elementary Computer Programming</td>
<td></td>
</tr>
<tr>
<td>or MATH 122 Calculus for Science and Engineering II</td>
<td></td>
</tr>
<tr>
<td>or MATH 126 Math and Calculus Applications for Life, Managerial, and Social Sci II</td>
<td></td>
</tr>
<tr>
<td>Two Natural Science Courses</td>
<td>6-8</td>
</tr>
<tr>
<td>Two Arts &amp; Humanities Courses</td>
<td>6-8</td>
</tr>
<tr>
<td>Two Social Sciences Courses</td>
<td>6</td>
</tr>
<tr>
<td>Total Units</td>
<td>38-46</td>
</tr>
</tbody>
</table>

Degree Requirements

<table>
<thead>
<tr>
<th>Principles Requirements</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 101 Introduction to Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 102 Management Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ECON 102 Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 103 Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>OPRE 207 Statistics for Business and Management Science I</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Core Requirements</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BAFI 355 Corporate Finance</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 201 Contemporary Business and Communication</td>
<td>3</td>
</tr>
<tr>
<td>MIDS 301 Introduction to Information: A Systems and Design Approach</td>
<td>3</td>
</tr>
<tr>
<td>MKMR 201 Marketing Management</td>
<td>3</td>
</tr>
<tr>
<td>OPRE 301 Operations Research and Supply Chain Management</td>
<td>3</td>
</tr>
<tr>
<td>ORBH 250 Leading People (LEAD I)</td>
<td>3</td>
</tr>
<tr>
<td>ORBH 251 Leading Organizations (LEAD II)</td>
<td>3</td>
</tr>
<tr>
<td>PLCY 399 Business Policy</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 395 Advanced Seminar (*MGMT 395-one credit hour seminar; each student must complete three)</td>
<td>3</td>
</tr>
</tbody>
</table>

Open Electives

Electives 15-24

Total Units 57-66

Major Requirements

Students must complete an 18-credit-hour major in Business Management, Finance, Marketing or a Dean's Approved Major. Students who desire a Secondary Major in one of these areas should consult with a Weatherhead academic advisor.

Business Management Major Requirements

1) Complete three courses from within one of the concentrations below. 9
2) Complete one of the following analytics courses: 3-4
   BAFI 361 Empirical Analysis in Finance
   ECON 326 Econometrics
   MKMR 310 Marketing Analytics
3) Complete two additional Weatherhead electives. 6

Total Units 18-19

Business Management Concentrations

Business Information Technology

Required Course:

<table>
<thead>
<tr>
<th>Required Course</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>DESN 210 Introduction to Programming for Business Applications</td>
<td></td>
</tr>
</tbody>
</table>

Elective Courses (complete two of the following):

<table>
<thead>
<tr>
<th>Elective Courses</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 306 Accounting Information Systems - Basic</td>
<td></td>
</tr>
<tr>
<td>BAFI 335 Introduction to Fintech</td>
<td></td>
</tr>
<tr>
<td>MKMR 348 Strategic Internet Marketing</td>
<td></td>
</tr>
<tr>
<td>OPMT 377 Enterprise Resource Planning in the Supply Chain</td>
<td></td>
</tr>
</tbody>
</table>

Healthcare Management

Required Course:

<table>
<thead>
<tr>
<th>Required Course</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 378 Health Care Economics</td>
<td></td>
</tr>
</tbody>
</table>

Elective Courses (complete two of the following):

<table>
<thead>
<tr>
<th>Elective Courses</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 342 Public Finance</td>
<td></td>
</tr>
<tr>
<td>HSMC 412 Lean Services Operations</td>
<td></td>
</tr>
<tr>
<td>HSMC 420 Health Finance</td>
<td></td>
</tr>
</tbody>
</table>
Undergraduate Programs

<table>
<thead>
<tr>
<th>Program</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Innovation and Entrepreneurship</strong></td>
<td>BLAW 331: Legal Environment of Management</td>
</tr>
<tr>
<td></td>
<td>ECON 364: Economic Analysis of Business Strategies</td>
</tr>
<tr>
<td></td>
<td>ECON 369: Economics of Technological Innovation and Entrepreneurship</td>
</tr>
<tr>
<td></td>
<td>ENTP 301: Entrepreneurial Strategy</td>
</tr>
<tr>
<td></td>
<td>ENTP 310: Entrepreneurial Finance</td>
</tr>
<tr>
<td></td>
<td>ENTP 311: Entrepreneurship and Wealth Creation</td>
</tr>
<tr>
<td></td>
<td>MKMR 312: Selling and Sales Management</td>
</tr>
<tr>
<td></td>
<td>ORBH 380: Managing Negotiations</td>
</tr>
<tr>
<td><strong>NOTE:</strong> ENTP 301 is required for this concentration. Students completing an Innovation and Entrepreneurship concentration may not complete an Entrepreneurship minor.</td>
<td></td>
</tr>
<tr>
<td><strong>International Business</strong></td>
<td>ECON 355: The Emergence and Development of the Modern Economy</td>
</tr>
<tr>
<td></td>
<td>ECON 372: International Finance</td>
</tr>
<tr>
<td></td>
<td>ECON 373: International Trade</td>
</tr>
<tr>
<td></td>
<td>ECON 375: Economics of Developing Countries</td>
</tr>
<tr>
<td></td>
<td>ECON 376: Inside Financial Crises</td>
</tr>
<tr>
<td></td>
<td>MGMT 315: International Management Institute</td>
</tr>
<tr>
<td></td>
<td>ORBH 391: Leadership in Diversity and Inclusion: Towards a Globally Inclusive Workplace</td>
</tr>
<tr>
<td><strong>NOTE:</strong> MGMT 315 is required for this concentration. If a student wishes to substitute a course from another study abroad experience, he/she must receive prior approval from an academic advisor.</td>
<td></td>
</tr>
<tr>
<td><strong>Organizational Leadership</strong></td>
<td>ORBH 303: Leading Teams through Interpersonal Relationships</td>
</tr>
<tr>
<td></td>
<td>ORBH 360: Independent Study</td>
</tr>
<tr>
<td></td>
<td>ORBH 370: Navigating Gender in Organizations</td>
</tr>
<tr>
<td></td>
<td>ORBH 380: Managing Negotiations</td>
</tr>
<tr>
<td></td>
<td>ORBH 391: Leadership in Diversity and Inclusion: Towards a Globally Inclusive Workplace</td>
</tr>
<tr>
<td><strong>NOTE:</strong> Students completing an Organizational Leadership concentration may not complete a Leadership minor.</td>
<td></td>
</tr>
<tr>
<td><strong>Supply Chain Management</strong></td>
<td>OPMT 350: Project Management</td>
</tr>
<tr>
<td></td>
<td>OPMT 377: Enterprise Resource Planning in the Supply Chain</td>
</tr>
<tr>
<td></td>
<td>OPMT 422: Lean Operations</td>
</tr>
<tr>
<td></td>
<td>OPMT 475: Supply Chain Logistics</td>
</tr>
<tr>
<td></td>
<td>ORPRE 332: Computer Simulation</td>
</tr>
</tbody>
</table>

**Finance Major Requirements**

<table>
<thead>
<tr>
<th>Required Courses:</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAFI 356: Investments</td>
<td></td>
</tr>
<tr>
<td>BAFI 357: Financial Modeling, Analysis and Decision Making</td>
<td></td>
</tr>
<tr>
<td>BAFI 361: Empirical Analysis in Finance</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Elective Courses (complete three of the following six):</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAFI 335: Introduction to Fintech</td>
<td></td>
</tr>
<tr>
<td>BAFI 341: Money and Banking</td>
<td></td>
</tr>
<tr>
<td>or ECON 341: Money and Banking</td>
<td></td>
</tr>
<tr>
<td>BAFI 358: Intermediate Corporate Finance</td>
<td></td>
</tr>
<tr>
<td>BAFI 359: Cases in Finance</td>
<td></td>
</tr>
<tr>
<td>BAFI 362: Advanced Financial Analytics</td>
<td></td>
</tr>
<tr>
<td>BAFI 365: Options and Other Derivatives</td>
<td></td>
</tr>
</tbody>
</table>

**Total Units: 18**

**Marketing Major Requirements**

<table>
<thead>
<tr>
<th>Required Courses:</th>
<th>18</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKMR 304: Brand Management</td>
<td>3</td>
</tr>
<tr>
<td>MKMR 308: Measuring Marketing Performance</td>
<td>3</td>
</tr>
<tr>
<td>MKMR 310: Marketing Analytics</td>
<td>3</td>
</tr>
<tr>
<td>MKMR 311: Customer Relationship Management</td>
<td>3</td>
</tr>
<tr>
<td>MKMR 312: Selling and Sales Management</td>
<td>3</td>
</tr>
<tr>
<td>MKMR 348: Strategic Internet Marketing</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units: 18**

**Dean's Approved Major Requirements**

A student may consult with an advisor to develop a proposal for individualized study in an area of interest, subject to approval by the Weatherhead Undergraduate Executive Committee.

1) Complete five courses around a common interest, selected in conjunction with a major advisor. 15

2) Complete one of the following analytics courses: 3-4

| BAFI 361: Empirical Analysis in Finance                                                        |   |
| ECON 326: Econometrics                                                                          |   |
| MKMR 310: Marketing Analytics                                                                   |   |

**Total Units: 18-19**

**Total Credit Hours for Degree: 122**

Students must complete one university-approved SAGES Senior Capstone. It is not required that students complete a Weatherhead-specific capstone. However, the vast majority of students take MGMT 398 Action Learning. Highly motivated students with a keen interest in a particular business topic may complete an individual research project via MGMT 397, subject to approval by the Weatherhead Undergraduate Executive Committee.

Students pursuing a BS in Management are advised to take the ORBH 250 Leading People (LEAD I) and ORBH 251 Leading Organizations (LEAD II) sequence in the second year.
For more information, contact Jim Hurley (james.hurley@case.edu), assistant dean of undergraduate and integrated study programs at 216.368.3856.

### Sample Plan of Study: BS in Management

#### First Year

<table>
<thead>
<tr>
<th>Units</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math and Calculus Applications for Life, Managerial, and Social Sci I (MATH 125)</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Introduction to Financial Accounting (ACCT 101)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Principles of Microeconomics (ECON 102)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Arts/Humanities</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>SAGES (University Seminar)</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>PHED</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Social Sciences</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Management Accounting (ACCT 102)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Principles of Macroeconomics (ECON 103)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Contemporary Business and Communication (MGMT 201)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>SAGES (University Seminar)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PHED</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Year Total:</strong></td>
<td>17</td>
<td>15</td>
</tr>
</tbody>
</table>

#### Second Year

<table>
<thead>
<tr>
<th>Units</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leading People (LEAD I) (ORBH 250)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Statistics for Business and Management Science I (OPRE 207)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Corporate Finance (BAFI 355)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>SAGES (University Seminar)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Leading Organizations (LEAD II) (ORBH 251)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Marketing Management (MKMR 201)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Introduction to Programming for Business Applications (DESN 210)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Arts/Humanities</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Year Total:</strong></td>
<td>15</td>
<td>15</td>
</tr>
</tbody>
</table>

#### Third Year

<table>
<thead>
<tr>
<th>Units</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Weatherhead Major</td>
<td>3</td>
<td></td>
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<tr>
<td>Weatherhead Major</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Social Sciences</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Introduction to Information: A Systems and Design Approach (MIDS 301)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Operations Research and Supply Chain Management (OPRE 301)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Advanced Seminar (MGMT 395)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Weatherhead Major</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Weatherhead Major</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Year Total:</strong></td>
<td>15</td>
<td>13</td>
</tr>
</tbody>
</table>

#### Fourth Year

<table>
<thead>
<tr>
<th>Units</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action Learning (MGMT 398)</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>MGMT 395</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Weatherhead Major</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Business Policy (PLCY 399)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MGMT 395</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Year Total:</strong></td>
<td>16</td>
<td>13</td>
</tr>
</tbody>
</table>

**Total Units in Sequence:** 122

---

### Minor in Accounting

<table>
<thead>
<tr>
<th>Units</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 101 Introduction to Financial Accounting</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ACCT 102 Management Accounting or ACCT 100 Introduction to Accounting for Non-Business Majors</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ACCT 305 Income Tax: Concepts, Skills, Planning</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Two additional 300-level accounting courses</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td><strong>Total Units:</strong></td>
<td>15</td>
<td></td>
</tr>
</tbody>
</table>

### Minor in Banking and Finance

**Required:**

<table>
<thead>
<tr>
<th>Units</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 101 Introduction to Financial Accounting or ACCT 100 Introduction to Accounting for Non-Business Majors</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BAFI 355 Corporate Finance</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Three electives from the following:</strong></td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>BAFI 335 Introduction to Fintech</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BAFI 341 Money and Banking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BAFI 356 Investments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BAFI 357 Financial Modeling, Analysis and Decision Making</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BAFI 358 Intermediate Corporate Finance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BAFI 359 Cases in Finance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BAFI 361 Empirical Analysis in Finance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BAFI 362 Advanced Financial Analytics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BAFI 365 Options and Other Derivatives</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Units:</strong></td>
<td>15</td>
<td></td>
</tr>
</tbody>
</table>

### Minor in Business Management

*Note: Business Management minor is not open to WSOM majors (except Economics majors).*

**Required:**

<table>
<thead>
<tr>
<th>Units</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
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</table>
### Minor in Leadership

**Required:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ORBH 250</td>
<td>Leading People (LEAD I)</td>
<td>3</td>
</tr>
<tr>
<td>or ORBH 396</td>
<td>Professional Development for Engineers</td>
<td></td>
</tr>
<tr>
<td>ORBH 251</td>
<td>Leading Organizations (LEAD II)</td>
<td>3</td>
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</tbody>
</table>

**Three electives from the following:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORBH 303</td>
<td>Leading Teams through Interpersonal Relationships</td>
<td></td>
</tr>
<tr>
<td>ORBH 330</td>
<td>Quantum Leadership: Creating Value for You, Business, and the World</td>
<td></td>
</tr>
<tr>
<td>ORBH 370</td>
<td>Navigating Gender in Organizations</td>
<td></td>
</tr>
<tr>
<td>ORBH 380</td>
<td>Managing Negotiations</td>
<td></td>
</tr>
<tr>
<td>ORBH 391</td>
<td>Leadership in Diversity and Inclusion: Towards a Globally Inclusive Workplace</td>
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</table>

**Total Units** 15

### Minor in Marketing

**Required:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKMR 201</td>
<td>Marketing Management</td>
<td>3</td>
</tr>
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</table>

**Four of the following (including at least three MKMR courses):**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKMR 304</td>
<td>Brand Management</td>
<td></td>
</tr>
<tr>
<td>MKMR 308</td>
<td>Measuring Marketing Performance</td>
<td></td>
</tr>
<tr>
<td>MKMR 310</td>
<td>Marketing Analytics</td>
<td></td>
</tr>
<tr>
<td>MKMR 311</td>
<td>Customer Relationship Management</td>
<td></td>
</tr>
<tr>
<td>MKMR 312</td>
<td>Selling and Sales Management</td>
<td></td>
</tr>
<tr>
<td>MKMR 348</td>
<td>Strategic Internet Marketing</td>
<td></td>
</tr>
<tr>
<td>ANTH 102</td>
<td>Being Human: An Introduction to Social and Cultural Anthropology</td>
<td></td>
</tr>
<tr>
<td>ECON 328</td>
<td>Designing Experiments for Social Science, Policy, and Management</td>
<td></td>
</tr>
<tr>
<td>ENTP 301</td>
<td>Entrepreneurial Strategy</td>
<td></td>
</tr>
</tbody>
</table>

**Total Units** 15

**For more information, contact:**

Jim Hurley (james.hurley@case.edu), assistant dean of undergraduate and integrated study programs, 216.368.3856; or Tiffany Schwendeman (tiffany.schwendeman@case.edu), assistant dean of undergraduate and integrated study programs, 216.368.2058.

Weatherhead's Integrated Study Programs allow undergraduate students the unique opportunity to pursue a bachelor's degree and a master's degree at the same time, completing both degrees in as little as four years. These programs are open to all Case Western undergraduates, regardless of major, but certain prerequisite courses may be required in order to complete the master's degree. Each program has its own set of admission criteria, course timelines and considerations, so it is best to speak with a program representative as early as possible.
BA/BS and Master of Accountancy Integrated Study Program (https://weatherhead.case.edu/degrees/undergraduate/academics/accounting/integrated-program/)
Program Contacts:
Tiffany Schwendeman (tiffany.schwendeman@case.edu), assistant dean of undergraduate and integrated study programs, 216.368.2058
Ashley Lu (ashley.lu@case.edu), program manager, MAcc program, 216.368.5376

BA/BS and MSM-Business Analytics Integrated Study Program (https://weatherhead.case.edu/degrees/undergraduate/academics/business-analytics/integrated-program/)
Program Contacts:
Jim Hurley (james.hurley@case.edu), assistant dean of undergraduate and integrated study programs, 216.368.3856
Meredith Richardson (meredith.richardson@case.edu), admissions manager, 216.368.7586

BA/BS and MSM-Finance Integrated Study Program (https://weatherhead.case.edu/degrees/undergraduate/academics/finance/integrated-program/)
Program Contacts:
Jim Hurley (james.hurley@case.edu), assistant dean of undergraduate and integrated study programs, 216.368.3856
Marybeth Keeler (mkk761@case.edu), program manager, MSM-Finance program, 216.368.3688
Meredith Richardson (meredith.richardson@case.edu), admissions manager, 216.368.7586

BA/BS and MSM-Healthcare Integrated Study Program (https://weatherhead.case.edu/degrees/undergraduate/academics/healthcare-management/integrated-program/)
Program Contacts:
Jim Hurley (james.hurley@case.edu), assistant dean of undergraduate and integrated study programs, 216.368.3856
Karla Schiebel (karla.schiebel@case.edu), director of admission, senior recruiter MSM Healthcare & international initiatives, 216.368.3914

BA/BS and MSM-Operations Research/Supply Chain Management Integrated Study Program (https://weatherhead.case.edu/degrees/undergraduate/academics/supply-chain-management/integrated-program/)
Program Contacts:
Jim Hurley (james.hurley@case.edu), assistant dean of undergraduate and integrated study programs, 216.368.3856
Meredith Richardson (meredith.richardson@case.edu), admissions manager, 216.368.7586

Master of Business Administration (MBA)

Full-Time MBA
The full-time MBA program is a four-semester, 60-credit-hour program that provides students with the strong foundation necessary to be a leader in management while allowing opportunities for students to pursue their passions and customize their experience. In partnership with faculty and staff, students create a personalized learning plan with distinct concentrations by choosing electives that comprise half of the program thereby enabling specialization within their MBA.

Distinctive courses in Weatherhead's MBA program help students assess their strengths and develop a learning plan to meet their career goals. Upon enrolling in the MBA, students take Leading People and Organizations, which facilitates the discovery of individual strengths and weaknesses through a series of self-assessments, experiential activities and case studies focused on teamwork. Students then develop core management skills (accounting, finance, marketing, operations/supply chain management, strategy, economics, statistics and analytics) in the first year of the program. In the second year of the MBA program, students choose electives based on their choice of concentration(s) and complete the required core strategy class.

The Weatherhead School of Management offers two tracks in the MBA program.

STEM MBA track - offers three concentrations:
- Financial Analytics
- Operations Analytics
- Business Analytics

Standard MBA track - offers seven concentrations:
- Finance
- Marketing
- Operations
- Business Analytics
- Organizational Leadership
- Entrepreneurship & Design & Innovation
- Healthcare Management

Independent Study
MBA students are limited to three credit hours of elective credit as independent study with the approval of the full-time MBA faculty program director.

Other courses at the university may be eligible for MBA elective credit, subject to approval from associate dean for academic affairs Gregory Jonas (gregory.jonas@case.edu).

Curriculum
All of the core courses in the following tables are required.
First Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Fall</th>
<th>Spring</th>
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</thead>
<tbody>
<tr>
<td>Probability, Statistics, and Quantitative Methods (MBAP 400)</td>
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</tr>
<tr>
<td>Financial Accounting (MBAC 502)</td>
<td>3</td>
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<tr>
<td>Statistics and Decision Modeling (MBAC 511) or Foundations of Probability and Statistics (MSBA 433)</td>
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<td></td>
</tr>
<tr>
<td>Leading People and Organizations (MBAC 515)</td>
<td>3</td>
<td></td>
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<tr>
<td>Marketing Management (MBAC 506)</td>
<td>3</td>
<td></td>
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<tr>
<td>Corporate Finance I (MBAC 504)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Operations and Supply Chain Management (MBAC 507)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Economics (MBAC 512)</td>
<td>3</td>
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</tr>
<tr>
<td>Corporate Finance II (MBAC 505)</td>
<td>1.5</td>
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<td>Business Analytics (MBAC 518)</td>
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<tr>
<td>Managerial Accounting (MBAC 503)</td>
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Second Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic Issues and Applications (MBAC 508)</td>
<td>3</td>
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<tr>
<td>Elective</td>
<td>3</td>
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<tr>
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<td>Elective</td>
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<td></td>
</tr>
<tr>
<td>Year Total:</td>
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<td>15</td>
</tr>
</tbody>
</table>

Total Units in Sequence: 60

Electives

The program provides space for taking 10 elective courses. Students must choose four electives in a concentration (a concentration is required). Students must complete eight STEM-approved electives to complete the requirements of the STEM MBA track.

For additional information about this program, contact Radhika Ramamurthi (rxe73@case.edu), program manager, 216.368.2144, or Stephen Scheidt (sxs1507@case.edu), director of admissions, 216.368.6208.

Part-Time MBA

The part-time MBA is a 48-credit-hour, cohort-based program that combines a core of fundamental business classes with elective options to create an integrated experience focused on honing general management skills. Students develop a personalized learning plan through the MBAP 401 (LEAD) course.

The first summer semester begins with the intensive offering of LEAD and an online introduction to statistics MBAP 400. The rest of the core offerings are covered within the first two years of the program. Core classes typically meet one evening a week. Summer semesters include more intensive formats. The majority of the third year is devoted to electives. The part-time MBA program is designed to be a three-year program, but the 48 credit hours can be completed in as little as 2.5 years based on a customized curriculum plan. All degree requirements must be completed within six years.

Curriculum

First Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Summer</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Probability, Statistics, and Quantitative Methods (MBAP 400)</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leadership Assessment and Development (MBAP 401)</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial and Managerial Accountancy (MBAP 402)</td>
<td>3</td>
<td></td>
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<tr>
<td>Statistics and Decision Modeling (MBAP 403)</td>
<td>3</td>
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<td></td>
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<tr>
<td>Managing People and Organizations (MBAP 404)</td>
<td></td>
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<td>3</td>
</tr>
<tr>
<td>Financial Management I (MBAP 405)</td>
<td></td>
<td></td>
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<td>Year Total:</td>
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Second Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Summer</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economics for Managers (MBAP 406)</td>
<td>3</td>
<td></td>
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</tr>
<tr>
<td>Managerial Marketing (MBAP 407)</td>
<td>3</td>
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<tr>
<td>Operations Management (MBAP 408)</td>
<td>3</td>
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<tr>
<td>Strategic Issues and Applications (MBAP 410)</td>
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Third Year

<table>
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<tr>
<th>Course</th>
<th>Summer</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainability and Social Entrepreneurship (MBAP 409)</td>
<td>3</td>
<td></td>
<td></td>
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<tr>
<td>Identifying Design Opportunities (MBAP 411)</td>
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<tr>
<td>Elective</td>
<td></td>
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<tr>
<td>Elective</td>
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<td>3</td>
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<td>Elective</td>
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<td>Year Total:</td>
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<td>9</td>
<td>6</td>
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</tbody>
</table>

Total Units in Sequence: 48

Open Electives

Students in the part-time MBA program have the opportunity to choose five electives. Students determine their own focus areas and, with the help of our Career Management Office, learn how to best position themselves for post-MBA career advancement.
For additional information about this program, contact Radhika Ramamurthi (rxe73@case.edu), program manager, 216.368.2144, or Stephen Schiedt (sxs1507@case.edu), director of admissions, 216.368.6208.

Executive MBA (EMBA)

The Executive MBA (EMBA) and the Cleveland Clinic-Weatherhead Executive MBA are tailored to those poised to move into a more prominent leadership role. Weatherhead’s renowned Organizational Behavior Department structured the EMBA around an exploration of the four levels of leadership, amplifying students’ ability to effect change at the personal, team, organization and societal levels. Classes are held during periodic residencies in the company of intimate cohort groups.

Curriculum

The 48-credit-hour program takes place over 16 brief residencies. The curriculum is delivered over five semesters or 21 months. Both fall and spring semesters are comprised of four three-day residencies (Thursday, Friday, Saturday), with additional track-specific site visits during one residency in the spring semester. The summer semester includes the 10-day international study tour as part of the international business course EMBA 475. Although individual study habits vary, students should anticipate spending 15-20 hours per week to study outside of classes.

The Weatherhead EMBA is a lock-step cohort program. Participants self-select learning teams that represent essential study partnerships over the course of the program as well as invaluable resources for networking and organizational support. Learning teams meet weekly outside of the classroom, either face-to-face or remotely, to achieve course objectives and enhance the learning experience. In addition, faculty often host optional study and review sessions, which are also recorded for virtual access.

First Year

<table>
<thead>
<tr>
<th>Units</th>
<th>Fall</th>
<th>Spring</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leading Change: Self (EMBA 441)</td>
<td>2.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounting for Business Executives (EMBA 436)</td>
<td>2.5</td>
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</tr>
<tr>
<td>Business Statistics and Quantitative Analysis (EMBA 438A)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Managerial Marketing (EMBA 450)</td>
<td>2.5</td>
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<td></td>
</tr>
<tr>
<td>Business Model Design (EMBA 451)</td>
<td>2.5</td>
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<td></td>
</tr>
<tr>
<td>TEAMS (EMBA 417)</td>
<td>0</td>
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</tr>
<tr>
<td>Leading Change: Teams (EMBA 473)</td>
<td>2.5</td>
<td></td>
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<tr>
<td>Expanding Boundaries (EMBA 445)</td>
<td>2.5</td>
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</tr>
<tr>
<td>Business Statistics and Quantitative Analysis (EMBA 438B)</td>
<td>1.25</td>
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<tr>
<td>Corporate Finance (EMBA 439)</td>
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<tr>
<td>Economic Analysis for Managers (EMBA 437)</td>
<td>2.5</td>
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<tr>
<td>Managing in a Global Economy (EMBA 475)</td>
<td></td>
<td>3</td>
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<tr>
<td>Year Total:</td>
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Second Year

<table>
<thead>
<tr>
<th>Units</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leading Change: The Organization (EMBA 472)</td>
<td>2.5</td>
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</tbody>
</table>

EMBA Nonprofit Certificate

In addition to earning the Master of Business Administration degree, nonprofit professionals who complete the EMBA can earn the EMBA Nonprofit Certificate at the same time. The EMBA certificate program fosters mutually beneficial dialogue between professionals from nonprofit and for-profit backgrounds. As a participant in the EMBA Nonprofit Certificate program, you will build new and lasting partnerships with other nonprofit and for-profit organizations in Greater Cleveland.

Cleveland Clinic-Weatherhead Executive MBA

The Cleveland Clinic-Weatherhead Executive MBA at Case Western Reserve University combines Weatherhead’s breakthrough business concepts of leadership in management with Cleveland Clinic’s innovation in healthcare to make this EMBA the premier option for experienced professionals in the healthcare profession. Participants in the Cleveland Clinic-Weatherhead EMBA join students in the traditional EMBA track to provide cross-pollination of ideas from a multitude of industries and experiences. Several healthcare-specific curriculum differences are noted in the plan of study below.

Curriculum

First Year

<table>
<thead>
<tr>
<th>Units</th>
<th>Fall</th>
<th>Spring</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leading Change: Self (EMBA 441)</td>
<td>2.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounting for Business Executives (EMBA 436)</td>
<td>2.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Statistics and Quantitative Analysis (EMBA 438A)</td>
<td>1.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Managerial Marketing (EMBA 450)</td>
<td>2.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Model Design (EMBA 451)</td>
<td>2.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TEAMS (EMBA 417)</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leading Change: Teams (EMBA 473)</td>
<td>2.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expanding Boundaries (EMBA 445)</td>
<td>2.5</td>
<td></td>
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</tr>
<tr>
<td>Corporate Finance (EMBA 439)</td>
<td>2.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economic Analysis for Managers (EMBA 437)</td>
<td>2.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Managing in a Global Economy (EMBA 475)</td>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Year Total:</td>
<td>11.3</td>
<td>11.3</td>
<td>3</td>
</tr>
</tbody>
</table>
Business Statistics and Quantitative Analysis (EMBA 438B) | 1.25
Healthcare Financial Management (EMBA 458) | 2.5
Health Economics and Strategy (EMBA 459) | 2.5
Managing in a Global Economy (EMBA 475) | 3

Year Total: 11.3 11.3 3

Second Year

<table>
<thead>
<tr>
<th>Units</th>
<th>Fall</th>
<th>Spring</th>
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<tbody>
<tr>
<td>Leading Change: The Organization (EMBA 472)</td>
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<td>Legal Environment (EMBA 464)</td>
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<td>Leading Design in Organization (EMBA 478A)</td>
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<td>Supply Chain Management (EMBA 443)</td>
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</tr>
<tr>
<td>Health Informatics, Analytics &amp; Decision Making (EMBA 430)</td>
<td>2.5</td>
<td></td>
</tr>
<tr>
<td>Corporate Governance and Dialogues in Healthcare (EMBA 476)</td>
<td>2.5</td>
<td></td>
</tr>
<tr>
<td>Leading Change: Society (EMBA 479)</td>
<td>2.5</td>
<td></td>
</tr>
<tr>
<td>Innovation (EMBA 442)</td>
<td>2.5</td>
<td></td>
</tr>
<tr>
<td>Leading Design in Organizations (EMBA 478B)</td>
<td>1.25</td>
<td></td>
</tr>
<tr>
<td>Contemporary Issues in Management (EMBA 449)</td>
<td>2.5</td>
<td></td>
</tr>
<tr>
<td>Year Total:</td>
<td>11.3</td>
<td>11.3</td>
</tr>
</tbody>
</table>

Total Units in Sequence: 48

* Year totals have been rounded up to 11.3, but the correct units are 11.25.

For more information, contact Christine Kush (cxk412@case.edu), Executive Director, Executive Education 216.368.6861.

Master's Programs

Master of Accountancy (MAcc)

The Master of Accountancy program at Weatherhead is a 30-credit-hour specialized master's degree designed to build upon the skills and knowledge acquired in an undergraduate accounting program. Based upon a student's professional interests, they will choose between two tracks, the Professional Track or the Analytics Track, that are specifically tailored to develop their ability to prepare, interpret and communicate accounting information as required by that profession. Through a common set of courses, the program enhances a student's critical thinking and communication skills, positioning graduates for long-term success in careers that span business, government and non-profit organizations.

Upon completion of Weatherhead’s MAcc program, graduates will have satisfied the accounting educational requirements to sit for the CPA examination in the state of Ohio. Depending on a student’s previous studies, they may or may not satisfy the general business educational requirements. If students wish to sit for the examination in a state other than Ohio, they are encouraged to review the educational requirements before beginning their studies in order to plan accordingly.

Undergraduate Opportunities

Undergraduate students at Case Western Reserve University have the opportunity to pursue a bachelor’s degree and the MAcc at the same time through the BA/BS and Master of Accountancy Integrated Study Program (https://weatherhead.case.edu/degrees/undergraduate/academics/accounting/integrated-program/). The integrated program is open to students pursuing any undergraduate major, although students majoring in or with a secondary major in accounting are able to complete both degrees in the shortest amount of time, typically nine or 10 semesters. A select number of exceptionally well-qualified high school seniors who plan to study accounting are offered places in the Early Admission to the Integrated Study Program in Accountancy (https://bulletin.case.edu/weatherheadschoolormanagement/undergradprograms/#accountingtext) (p. 3) and may obtain both degrees in eight semesters.

Eligibility to Apply

Applicants to the MAcc program must have earned, or are in the process of earning, a bachelor’s degree from an accredited institution. A bachelor’s degree in accounting is not required to apply to the MAcc. Students interested in the Analytics Track must have completed two semesters of college calculus (including exposure to multivariate functions) and have a basic understanding of linear algebra (high-level knowledge of vectors and matrices plus what’s involved in adding and multiplying them).

Prerequisite Courses

In addition to earning a bachelor’s degree, applicants must have earned a grade of C or better in the following courses or their equivalents. Students who have not completed these courses must fulfill these requirements at CWRU or at an approved substitute institution.

ACCT 101 Introduction to Financial Accounting 3
ACCT 102 Management Accounting 3
ACCT 207 Excel and Accounting Analytics Technology 1 3
ACCT 300 Corporate Reporting I 3
ACCT 301 Corporate Reporting II 3
ACCT 305 Income Tax: Concepts, Skills, Planning 3
ACCT 314 Attestation and Assurance Services 3
BLAW 331 Legal Environment of Management 2 3

1 Students may waive the Excel course by passing a proficiency examination.
2 Students may take the graduate level U.S. Business Law course (BLAW 417 Legal Environment for Managers) and double count it as an elective for the MAcc.

Curriculum

The MAcc program requires completion of 30 credit hours of graduate study, typically comprised of ten 3-credit hour courses. The program offers two tracks: (i) a Professional Track for students interested in careers in audit, tax or management accounting; and (ii) a STEM-designated Analytics Track for students interested in combining accounting with data analysis tools. Completion of either track will meet
the accounting educational requirements to sit for the CPA exam in the state of Ohio.

**Core Courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 404</td>
<td>Advanced Financial Reporting</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 405</td>
<td>Advanced Federal Taxes</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 444</td>
<td>Advanced Auditing Theory and Practice</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 520</td>
<td>Advanced Accounting Theory</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 540</td>
<td>Corporate Governance and Contemporary Accounting Policy</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units 15

**Track Courses:**

*Students must complete one of the following two tracks;*

1) **Professional Track**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 406</td>
<td>Advanced Accounting Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 407</td>
<td>Analytics and Control</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 414</td>
<td>Corporate Reporting and Analysis</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 431</td>
<td>Tax Practice: Analysis, Planning and Communications</td>
<td>3</td>
</tr>
</tbody>
</table>

Supporting Elective * 3

Total Units 15

2) **Analytics Track**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTEC 420</td>
<td>Introduction to Programming for Business Applications</td>
<td>3</td>
</tr>
<tr>
<td>MSBA 433</td>
<td>Foundations of Probability and Statistics</td>
<td>3</td>
</tr>
<tr>
<td>MSBA 434</td>
<td>Data Mining &amp; Visualization</td>
<td>3</td>
</tr>
<tr>
<td>MSBA 444</td>
<td>Predictive Modeling</td>
<td>3</td>
</tr>
</tbody>
</table>

Supporting Elective * 3

Total Units 15

*All students must select a 3-credit hour graduate-level elective course that complements an accountancy career. Students completing the Analytics Track track must choose an elective with a STEM-related focus. A list of approved graduate supporting electives will be provided each semester.*

For more information about the MAcc, contact Tiffany Schwendeman (tiffany.schwendeman@case.edu), assistant dean, undergraduate and integrated study programs, at 216.368.2058; or Ashley Lu (ashley.lu@case.edu), program manager, MAcc, at 216.368.5376.

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**Master of Science in Management-Business Analytics (MSM-Business Analytics)**

The Master of Science in Management-Business Analytics (MSM-Business Analytics) degree is a 16-month, 36-credit-hour, full-time program for students interested in learning advanced data analytics skills for application in general business areas, focusing specifically on both marketing and operations. The program prepares students to analyze big data for smart insights for executive decision making. The program includes three interlocking modules:

- Business core (10.5 credit hours)
- Analytics core (13.5 credit hours)
- Applied Business Analytics (12 credit hours)

The **Business Core** provides students with a holistic understanding of the underlying business context necessary for succeeding in any industry. The **Analytics Core** equips students with the general data handling, data presentation and analysis skills. The courses in **Applied Business Analytics** build from these general skills to improve the students’ ability to make decisions in the two focus application areas: marketing and operations.

The overlapping areas emphasize our program’s goals:

- Learning the language of business
- Building analytical skills
- Applying appropriate analytical tools to today’s business data

The program is delivered through a range of open source and commercial statistical software (e.g., R, Python, SPSS, SAS), preparing students with the necessary user expertise to excel in analyst positions across industries.

**Prerequisites**

Students are required to have taken two calculus courses at the college level and one course in linear algebra. Students who do not satisfy linear algebra prerequisites will be required to take a one credit preparatory course. A course in statistics is strongly preferred.

**Curriculum**

**First Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operations Management I (MSBA 406A)</td>
<td>1.5</td>
</tr>
<tr>
<td>Foundations of Probability and Statistics</td>
<td>3</td>
</tr>
<tr>
<td>Data Mining &amp; Visualization</td>
<td>3</td>
</tr>
<tr>
<td>Predictive Modeling</td>
<td>3</td>
</tr>
<tr>
<td>Python Prog w Appl in Supply Chain (MSOR 492)</td>
<td>1.5</td>
</tr>
<tr>
<td>Managerial Marketing I (MSBA 407A)</td>
<td>1.5</td>
</tr>
<tr>
<td>Operations Management II (MSBA 406B)</td>
<td>1.5</td>
</tr>
<tr>
<td>Accounting and Financial Management (MSBA 410)</td>
<td>3</td>
</tr>
<tr>
<td>Operations Analytics: Stochastic (MSBA 432)</td>
<td>3</td>
</tr>
<tr>
<td>Managerial Marketing II (MSBA 407B)</td>
<td>1.5</td>
</tr>
<tr>
<td>Advanced Marketing Analytics (MSBA 445)</td>
<td>3</td>
</tr>
<tr>
<td>Team Development (MSBA 485B)</td>
<td>1.5</td>
</tr>
<tr>
<td>Year Total:</td>
<td>13.5</td>
</tr>
</tbody>
</table>

**Second Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operations Analytics: Deterministic (MSBA 411)</td>
<td>3</td>
</tr>
<tr>
<td>Marketing Models &amp; Digital Analytics (MSBA 435)</td>
<td>3</td>
</tr>
<tr>
<td>Machine Learning (MSBA 446)</td>
<td>3</td>
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<tr>
<td>Year Total:</td>
<td>9</td>
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</tbody>
</table>

Total Units in Sequence: 36
For more information about this program, visit the website (https://weatherhead.case.edu/degrees/masters/ms-management/business-analytics/) or contact Meredith Richardson (meredith.richardson@case.edu), admissions manager, at 216.368.7586.

Master of Engineering and Management (MEM)
The Master of Engineering and Management (MEM) degree is offered through an innovative collaboration between the Case School of Engineering and the Weatherhead School of Management. The one-year, 12-course program of study builds on the technical and analytical skills gained through an undergraduate engineering degree and provides a real-world framework for applying them along with master’s level business management tools. Individualized coaching emphasizes self-assessment and emotional intelligence. Interdisciplinary team projects enhance the people skills needed as a business leader today. The MEM program positions students to become more productive faster and, in the process, accelerate their careers.

Additional information regarding the MEM program (http://bulletin.case.edu/schoolofengineering/#degreeprogramstext) is available in the Case School of Engineering section of the Bulletin.

Master of Science in Management-Finance (MSM-Finance)
The Master of Science in Management-Finance (MSM-Finance) degree is a rigorous program designed to equip students to meet the needs of financial sector companies in today’s intense and competitive business climate. Upon completion of the program, students will be prepared to make immediate contributions to careers in corporate finance, investment banking, equity research, investment management, risk management and corporate consulting, or to pursue higher studies.

The program’s 30 credit hours can be completed in as little as two semesters, or students can stay longer to work toward an additional nine-credit-hour departmental certification in a specialization track—corporate financial analytics, corporate finance, risk management analytics or financial big data analytics.

Curriculum
The 30-credit-hour MSM-Finance program is a two-semester, full-time curriculum.

The curriculum is comprised of the following components:

Core Courses
The core courses provide students with the tools and techniques that build a strong foundation in finance.

Before the first semester begins, all entering MSM-Finance students must take MSFI 401, Financial Orientation, which is the mandatory preparatory/refresher course.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSFI 401</td>
<td>Financial Orientation</td>
<td>1.5</td>
</tr>
<tr>
<td>MSFI 404</td>
<td>Financial Modeling</td>
<td>3</td>
</tr>
<tr>
<td>MSFI 421</td>
<td>Corporate Financial Analysis</td>
<td>3</td>
</tr>
<tr>
<td>MSFI 429</td>
<td>Investment Management</td>
<td>3</td>
</tr>
<tr>
<td>MSFI 430</td>
<td>Derivatives and Risk Management</td>
<td>3</td>
</tr>
<tr>
<td>MSFI 435</td>
<td>Empirical Finance</td>
<td>3</td>
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</tbody>
</table>

MSFI 436A | Individual, Team and Career Development | .75     |
MSFI 436B | Individual, Team and Career Development | .75     |

Total Units 18

Track Electives
Track elective courses develop expertise in a particular track: corporate financial analytics, corporate finance, risk management analytics or financial big data analytics. Enrollment in elective courses may be contingent upon appropriate performance in the program.

Corporate Financial Analytics Track (STEM Eligible)
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSFI 428</td>
<td>Financial Strategy and Value Creation</td>
<td>3</td>
</tr>
<tr>
<td>or MSFI 480</td>
<td>Global Banking &amp; Capital Markets</td>
<td></td>
</tr>
<tr>
<td>MSFI 432</td>
<td>Corporate Risk Management</td>
<td>3</td>
</tr>
<tr>
<td>MSFI 434</td>
<td>Financial Analytics and Banking</td>
<td>3</td>
</tr>
<tr>
<td>or MSFI 460</td>
<td>Investment Strategies</td>
<td></td>
</tr>
<tr>
<td>MSFI 491</td>
<td>Python Programming w Appl in Finance</td>
<td>3</td>
</tr>
<tr>
<td>MSFI 493</td>
<td>Blockchains and AI: Applications in Finance and Business</td>
<td>3</td>
</tr>
<tr>
<td>STAT 425</td>
<td>Data Analysis and Linear Models</td>
<td>3</td>
</tr>
<tr>
<td>or STAT 426</td>
<td>Multivariate Analysis and Data Mining</td>
<td></td>
</tr>
</tbody>
</table>

Corporate Finance Track
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSFI 403</td>
<td>Corporate Financial Technology</td>
<td>3</td>
</tr>
<tr>
<td>MSFI 428</td>
<td>Financial Strategy and Value Creation</td>
<td>3</td>
</tr>
<tr>
<td>MSFI 440</td>
<td>Financial Decisions Modeling and Analytics</td>
<td>3</td>
</tr>
<tr>
<td>MSFI 450</td>
<td>Mergers and Acquisitions</td>
<td>3</td>
</tr>
<tr>
<td>MSFI 480</td>
<td>Global Banking &amp; Capital Markets</td>
<td>3</td>
</tr>
<tr>
<td>MSFI 444</td>
<td>Entrepreneurial Finance</td>
<td>3</td>
</tr>
</tbody>
</table>

Risk Management Analytics Track (STEM Eligible)
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSFI 403</td>
<td>Corporate Financial Technology</td>
<td>3</td>
</tr>
<tr>
<td>MSFI 431</td>
<td>Fixed Income Markets and Their Derivatives</td>
<td>3</td>
</tr>
<tr>
<td>MSFI 432</td>
<td>Corporate Risk Management</td>
<td>3</td>
</tr>
<tr>
<td>MSFI 433</td>
<td>Quantitative Risk Modeling</td>
<td>3</td>
</tr>
<tr>
<td>MSFI 434</td>
<td>Financial Analytics and Banking</td>
<td>3</td>
</tr>
<tr>
<td>MSFI 440</td>
<td>Financial Decisions Modeling and Analytics</td>
<td>3</td>
</tr>
<tr>
<td>MSFI 491</td>
<td>Python Programming w Appl in Finance</td>
<td>3</td>
</tr>
</tbody>
</table>

Financial Big Data Analytics Track (STEM Eligible)
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSFI 431</td>
<td>Fixed Income Markets and Their Derivatives</td>
<td>3</td>
</tr>
<tr>
<td>MSFI 433</td>
<td>Quantitative Risk Modeling</td>
<td>3</td>
</tr>
<tr>
<td>MSFI 460</td>
<td>Investment Strategies</td>
<td>3</td>
</tr>
<tr>
<td>MSFI 470</td>
<td>Financial Models Using Big Data</td>
<td>3</td>
</tr>
<tr>
<td>MSFI 471</td>
<td>Applications in Financial Big Data</td>
<td>3</td>
</tr>
<tr>
<td>MSFI 493</td>
<td>Blockchains and AI: Applications in Finance and Business</td>
<td>3</td>
</tr>
</tbody>
</table>
MSFI 494  Artificial Intelligence for Financial Modeling  3

Other appropriate electives as approved by the program faculty director.

Departmental certification is available upon successful completion of 39 credit hours in a specific track.

For more information visit the website (https://weatherhead.case.edu/degrees/masters/ms-management/finance/) or contact Marybeth Keeler (mxk761@case.edu), program manager, at 216.368.3688; or Ted Evans (txe8@case.edu), director of admissions, at 216.368.2069.

Finance in China

The Weatherhead School of Management at Case Western Reserve University and the School of Economics and Management at Tongji University (SEM-Tongji) have partnered to offer the Master of Science in Management-Finance (MSM-Finance) in China program. This is the first master's degree in finance offered by a world-class U.S. university in mainland China. This innovative program, taught in Shanghai and Cleveland, provides students with both broad general management skills and depth of knowledge in finance. Graduates come away with a global way of thinking and the latest insights on the financial markets and instruments. In 2019, MBAChina ranked this program 2nd among more than 200 finance-focused MBA programs in China.

Students enrolled in this program take 30 credit hours of Weatherhead MSM-Finance courses through two semesters of part-time study on the Tongji University campus in Shanghai, plus a one-month-long residency in the U.S., which includes classes on the Case Western Reserve University campus in Cleveland, Ohio, as well as a residency in New York City to interact with financial institutions on Wall Street.

Upon graduation from the program, students will obtain the MSM-Finance degree from Weatherhead.

Program Features

- Obtain the first MSM-Finance degree offered from a highly ranked U.S. university in mainland China
- Gain cutting-edge knowledge and skills in global finance
- Take advantage of the opportunity to prepare for CFA, FRM and other certifications
- Specialize in corporate finance, risk management and capital markets
- Network with financial sector players in the U.S.; intern in Shanghai’s Lujiazui/Pudong international finance and trade area

To learn more, contact Yuan Wu (yuan.wu@case.edu), project manager, at 216.368.2077.

Master of Science in Management-Healthcare (MSM-Healthcare)

The Master of Science in Management-Healthcare (MSM-Healthcare) program provides rising healthcare professionals with the skills necessary to become effective managers and future healthcare leaders. The MSM-Healthcare program is a part-time program designed for working professionals that provides foundational training in the essential elements of business management through coursework tailored around the issues and challenges facing modern healthcare organizations.

Outcomes

In completion of the MSM-Healthcare program, students will:

- Gain a sophisticated understanding of the modern healthcare economy—its players, the incentives those players operate under and the role played by institutions and public policy in shaping those incentives
- Receive foundational training in essential elements of business management, including accounting, finance, strategy and operations
- Learn to speak and understand the language of business
- Gain exposure to a wide range of established healthcare professionals operating in diverse parts of the healthcare economy
- Acquire a network of regional and national contacts in the healthcare sector

Curriculum

The MSM-Healthcare is a 30-credit-hour program that is completed in six semesters with one semester completely dedicated to an independent project.

First Year

<table>
<thead>
<tr>
<th>Units</th>
<th>Fall</th>
<th>Spring</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Economics and Strategy (HSMC 421)</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounting for Healthcare (ACCT 401H) or Health Finance (BAFI 420)</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health Decision Making &amp; Analytics (HSMC 457)</td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Identifying Design Opportunities (HSMC 411)</td>
<td>6</td>
<td>6</td>
<td>3</td>
</tr>
</tbody>
</table>

Second Year

<table>
<thead>
<tr>
<th>Units</th>
<th>Fall</th>
<th>Spring</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lean Services Operations (HSMC 412)</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Managerial Marketing (HSMC 407)</td>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Dialogues in Health Care Management (HSMC 425)</td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Managing People and Organizations (HSMC 404)</td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Action Learning Project (MGMT 497)</td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Year Total:</td>
<td>6</td>
<td>6</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units in Sequence: 30

The MSM-Healthcare program may also be completed full-time in one year.

Accelerated Curriculum Plan

Plan of Study

<table>
<thead>
<tr>
<th>Units</th>
<th>Fall</th>
<th>Spring</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Economics and Strategy (HSMC 421)</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lean Services Operations (HSMC 412)</td>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Accounting for Healthcare (ACCT 401H)</td>
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<td>3</td>
</tr>
<tr>
<td>Managerial Marketing (HSMC 407)</td>
<td></td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>
Health Finance (HSMC 420) or Health Finance (BAFI 420) 3
Health Decision Making & Analytics (HSMC 457) 3
Dialogues in Health Care Management (HSMC 425) 3
Managing People and Organizations (HSMC 404) 3
Identifying Design Opportunities (MBAP 411) 3
Action Learning Project (MGMT 497) 3

Year Total: 12 12 6

Total Units in Sequence: 30

For additional information about this program, contact Karla Schiebel (kxs527@case.edu), senior recruiter, at 216.368.3914 or Alyssa Marynowski (axm1507@case.edu), recruitment manager, at 216.368.0894.

Master of Science in Management in Operations Research and Supply Chain Management (MSM-ORSC)

The MSM-ORSC degree is designed for individuals with quantitative training who seek to obtain a position in operations management or a management position in manufacturing, healthcare, service or consulting firms that are part of sophisticated national or global supply chains. The MSM-ORSC curriculum provides students with the fundamentals of business as well as depth and focus in the principles and concepts of operations and supply chain management. This unique program produces highly knowledgeable professionals who are well prepared to make organizations more efficient and competitive.

The MSM-ORSC degree attracts individuals with a quantitative undergraduate degree who have an interest in gaining expertise in the field of operations research and supply chain management. Typical undergraduate majors include:

- Engineering
- Statistics
- Computer science
- Economics
- Mathematics
- Business

Work experience is beneficial but not required for admission; many students pursue the MSM-ORSC immediately following the completion of their undergraduate degree.

Outcomes

Upon completion of the MSM-ORSC program, students will:

- Have a working knowledge of all functional areas of an organization and the ability to communicate effectively with colleagues in these areas
- Have a network of regional, national and international business contacts

Curriculum

The 33-credit-hour MSM-ORSC is a three-semester, full-time program that starts in the fall semester each year and can be completed in two, three or four semesters. The curriculum comprises the following three components:

Business Core (6 credit hours)
The Business Core introduces students to business fundamentals and includes a professional development course, a unique feature of the Weatherhead MSM-ORSC not found in most competitors' programs.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSOR 407</td>
<td>Managerial Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MSOR 458B</td>
<td>Team Development</td>
<td>1.5</td>
</tr>
<tr>
<td>MSOR 492</td>
<td>Python Progr w Appl in Supply Chain</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Total Units 6

Operations Research Core (9 credit hours)
The Operations Research Core provides the mathematical, statistical and computational skills needed by analysts in research and development groups in manufacturing and service companies and consulting firms.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSOR 411</td>
<td>Optimization Modeling</td>
<td>3</td>
</tr>
<tr>
<td>MSOR 432</td>
<td>Computer Simulation</td>
<td>3</td>
</tr>
<tr>
<td>MSOR 433</td>
<td>Foundations of Probability and Statistics</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units 9

Supply Chain Courses (18 credit hours)
Supply chain courses build upon the business and quantitative foundation to provide advanced knowledge in operations and supply chain management.

Required:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSOR 406</td>
<td>Operations Management</td>
<td>3</td>
</tr>
<tr>
<td>MSOR 420</td>
<td>Six Sigma and Quality Management</td>
<td>3</td>
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</tbody>
</table>

Total Units 6

Elective Options:

Students must choose four departmentally approved elective supply chain courses based on availability, which currently include the following (check with department administrator for current offerings):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSOR 422</td>
<td>Lean Operations</td>
<td>3</td>
</tr>
<tr>
<td>MSOR 450</td>
<td>Project Management</td>
<td>3</td>
</tr>
<tr>
<td>MSOR 475</td>
<td>Supply Chain Logistics</td>
<td>3</td>
</tr>
<tr>
<td>MSOR 476</td>
<td>Strategic Sourcing</td>
<td>3</td>
</tr>
<tr>
<td>MSOR 477</td>
<td>Enterprise Resource Planning in the Supply Chain</td>
<td>3</td>
</tr>
<tr>
<td>MSOR 478</td>
<td>Operational Excellence</td>
<td>3</td>
</tr>
</tbody>
</table>

For more information, contact Alireza Kabirian (axk821@case.edu), PhD, associate professor of operations and faculty director of the MSM-ORSC,
The Master of Science in Positive Organization Development and Change (MPOD) is the premier program created and offered by the world-renowned Organizational Behavior Department at the Weatherhead School of Management. The curriculum remains on the cutting edge of positive organization development, results-driven change management, leadership development, coaching, gender, diversity and multi-culturalism (inclusive leadership) and interpersonal and team-effectiveness.

The MPOD program emphasizes strength-based and positive approaches to managing change, designing sustainable organizations, formulating effective strategy, creating high engagement work cultures, leading through emotional intelligence and coaching for deep and lasting personal and professional development. The MPOD program is of value to organizations with aspiring managers who wish to:

- Broaden their knowledge of leading-edge theory and practice in Appreciative Inquiry, strength-based organization development and positive organizational change
- Develop emotional intelligence competencies needed to coach and foster leadership skills and personal growth for oneself and others
- Form high performance teams and flourishing enterprises that foster economic prosperity, ecological advancement and social responsibility
- Build consultative capabilities in strategic-level change interventions that create value for organizations, customers and communities
- Maximize organizational gains by managing the diversity and complexity that characterize today's organizations
- Use experiential learning to promote effective teams and decision making

The MPOD program is grounded in the basic belief that a person can be a powerful instrument for change, and that personal and professional development go hand in hand. The MPOD learning experience enables participants to become more effective leaders and coaches, and design and conduct positive organization change management interventions.

**Curriculum**

The MPOD program is conducted in modules spread out over four University semesters. The program design uses both onsite and online teaching to accommodate the busy schedules of leaders, managers and staff professionals, and enables students to attend school while continuing to work full time.

**MPOD Course List**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MPOD 413</td>
<td>Foundations of Positive Organization Development and Change</td>
</tr>
<tr>
<td>MPOD 414</td>
<td>Organization Design for a Knowledge World</td>
</tr>
<tr>
<td>MPOD 416A</td>
<td>Leadership, Executive Assessment and Development</td>
</tr>
<tr>
<td>MPOD 416B</td>
<td>Leadership and Executive Assessment and Development</td>
</tr>
<tr>
<td>MPOD 416C</td>
<td>Leadership, Executive Assessment and Development</td>
</tr>
<tr>
<td>MPOD 418</td>
<td>Flourishing Enterprise</td>
</tr>
<tr>
<td>MPOD 432A</td>
<td>Interpersonal Skills Building</td>
</tr>
<tr>
<td>MPOD 432B</td>
<td>Interpersonal Skills Building</td>
</tr>
<tr>
<td>MPOD 435</td>
<td>Practicum in Appreciative Inquiry and Positive OD</td>
</tr>
<tr>
<td>MPOD 439A</td>
<td>Individual Field Project</td>
</tr>
<tr>
<td>MPOD 439B</td>
<td>Individual Field Project</td>
</tr>
<tr>
<td>MPOD 440A</td>
<td>Inclusive Leadership in a Global Context</td>
</tr>
<tr>
<td>MPOD 440B</td>
<td>Inclusive Leadership in a Global Context</td>
</tr>
<tr>
<td>MPOD 440C</td>
<td>Inclusive Leadership in a Global Context</td>
</tr>
<tr>
<td>MPOD 470A</td>
<td>Leading Change from a Complexity Perspective</td>
</tr>
<tr>
<td>MPOD 470B</td>
<td>Leading Change from a Complexity Perspective</td>
</tr>
<tr>
<td>MPOD 479</td>
<td>Foundations of Strategic Thinking</td>
</tr>
<tr>
<td>MPOD 480</td>
<td>Dynamics of Effective Consulting Strategies</td>
</tr>
<tr>
<td>MPOD 498</td>
<td>Global Citizenship and Multi-Cultural OD: International Study Tour</td>
</tr>
</tbody>
</table>

For more information, please visit the website (http://weatherhead.case.edu/degrees/ms-positive-organization-development/) or contact Patricia Petty (patricia.petty@case.edu), associate director, at 216.368.4642.

**Doctoral Programs**

**Doctor of Business Administration (DBA)/Doctor of Management (DM) and PhD in Management: Designing Sustainable Systems**

Business leadership is increasingly required to integrate multiple sources of knowledge, understand the perceptions of diverse parties and put human values into action. Executives are challenged to create social, intellectual and economic value for their organizations and for society at large based on rigorous and sound evidence. Recognizing these challenges, Weatherhead offers two doctoral degrees in management for working professionals: the DBA/DM and the PhD in Management: Designing Sustainable Systems.

The DBA/DM is based on the expectation that the practitioner-scholar will develop the ability to think intensely and critically about problems confronting an organization, a community, a nation and the world. Students are afforded the opportunities to conceptually model these "wicked" problems, challenge existing assumptions and test new ideas. This is accomplished in a cross-disciplinary fashion with relevant contributions to both management theory and practice.

The PhD in Management: Designing Sustainable Systems is focused on preparing interdisciplinary practitioner-scholars for successful research and academic careers. Students develop the ability to approach problems...
of practice rigorously from multiple disciplinary angles and to produce sound evidence and theoretical frames to address those problems and communicate them to academic and practitioner audiences. The DBA/DM program also includes preparations for successful teaching in academic settings.

Curricula and coursework in these programs provide a foundation for conducting rigorous research and practicing evidence-based management. Courses are interrelated theoretically and methodologically and prepare students to bring academic, theoretical and data-driven perspectives to bear on problems that they may encounter in their organizations or in public policy advocacy.

DM
The DM is a 54-credit-hour, three-year, lock-step program for students currently enrolled with an option to pursue the Designing Sustainable Systems track in the PhD in Management Program. DM students’ research projects are evaluated by a faculty review committee over the course of the program at critical research milestones.

DBA
The DBA is a 60-credit-hour, three-year, lock-step program with an option to pursue the Designing Sustainable Systems track in the PhD in Management Program. DBA students’ research projects are evaluated by a faculty review committee over the course of the program at critical research milestones.

Curriculum

First Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theory and Practice of Collective Action (EDMP 611)</td>
<td>3</td>
</tr>
<tr>
<td>Leading Change (EDMP 613)</td>
<td>3</td>
</tr>
<tr>
<td>Introduction to Research Inquiry (EDMP 665)</td>
<td>3</td>
</tr>
<tr>
<td>Qualitative Inquiry I (EDMP 638)</td>
<td>3</td>
</tr>
<tr>
<td>Flourishing Enterprise: Creating Sustainable Value for Business and World Benefit (EDMP 672)</td>
<td>3</td>
</tr>
<tr>
<td>Understanding, Designing, Managing Complex Systems (EDMP 673)</td>
<td>3</td>
</tr>
<tr>
<td>Directed Studies Seminar (EDMP 642) Students enrolled in DBA</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Year Total: 9 10.5

Second Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conflict &amp; Cooperation in the Global Arena (EDMP 680)</td>
<td>3</td>
</tr>
<tr>
<td>Qualitative Inquiry II (EDMP 641)</td>
<td>3</td>
</tr>
<tr>
<td>Causal Analysis of Business Problems I (EDMP 648)</td>
<td>3</td>
</tr>
<tr>
<td>Directed Studies Seminar (EDMP 642) Students enrolled in DBA</td>
<td>1.5</td>
</tr>
<tr>
<td>Technology and Social System Design (EDMP 617)</td>
<td>3</td>
</tr>
<tr>
<td>Measuring Business Behaviors and Structures (EDMP 643)</td>
<td>3</td>
</tr>
<tr>
<td>Causal Analysis of Business Problems II (EDMP 649)</td>
<td>3</td>
</tr>
<tr>
<td>Directed Studies Seminar (EDMP 642) Students enrolled in DBA</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Year Total: 10.5 10.5

Third Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business as an Evolving Complex System (EDMP 614)</td>
<td>3</td>
</tr>
<tr>
<td>Integration of Qualitative and Quantitative Inquiry (EDMP 645)</td>
<td>3</td>
</tr>
<tr>
<td>Designing Sustainable Systems (EDMP 677)</td>
<td>3</td>
</tr>
<tr>
<td>Directed Studies Seminar (EDMP 642) Students enrolled in DBA</td>
<td>1.5</td>
</tr>
<tr>
<td>Social Ethics: Contemporary Issues (EDMP 640)</td>
<td>3</td>
</tr>
<tr>
<td>Knowledge Dissemination to Influence Managerial Practice (EDMP 664)</td>
<td>3</td>
</tr>
<tr>
<td>Global Economic Systems and Issues (EDMP 616)</td>
<td>3</td>
</tr>
</tbody>
</table>

Year Total: 10.5 9

Total Units in Sequence: 60

Students currently enrolled will complete the DM with 54 credit hours and the option to apply for the DBA Certificate of Equivalency. All students enrolling Fall 2020 will enroll in the DBA program shown here.

Research Requirements and Deliverables
The DBA/DM dissertation consists of the Qualitative Research Paper, Quantitative Research Paper and an Integrative Paper that organizes the research into a coherent thesis.

Research Proposal Paper
The first research requirement is a Qualitative Research Proposal that frames the student’s research problem and question. Additionally, the proposal specifies a design for the fieldwork portion of the qualitative research project. An inductive qualitative research proposal is developed that synthesizes a substantial body of scholarly literature (theoretical and empirical) in a fashion that creates a conceptual framework and model that provides insight into a significant problem of practice reflecting the lived experiences of a specific group of practitioners. The proposal outlines a broad research question to guide the qualitative research and specifies a design for the fieldwork to be carried out in the study. Students develop individual skills of conceptualizing (including modeling), creating ethnographic/phenomenological interview protocols, conducting semi-structured interviews and interpretively analyzing qualitative interview data.

Qualitative Research Paper
The Qualitative Research Paper presents findings and explanatory concepts from the student’s qualitative fieldwork project. It identifies and frames a potent “phenomenological practice gap” where current practitioner and academic knowledge guide effective practice. The research synthesizes significant scholarly literature into a coherent conceptual framework and an understandable model of relationships among theoretical constructs. Students learn to frame effective questions for practitioner-scholarship research that embodies inquiry and openness, to align the conceptual framework and research question to the chosen problem of practice and to write scholarly papers that are clear and that present a logical flow of well-supported arguments. By understanding the development of grounded theory and understanding ethnographic observation and field notes, students formally and rigorously analyze qualitative data in an interpretive fashion.

Capstone
The Capstone integrates the analytical approaches the student has learned in EDMP 643 Measuring Business Behaviors and Structures, EDMP 648 Causal Analysis of Business Problems I and EDMP 649 Causal Analysis of Business Problems II. The Capstone exercise is intended to allow students to demonstrate their independent competence in quantitative inquiry skills and, based on a satisfactory assessment, to progress toward the completion of the quantitative inquiry project, which is a requirement for both the DBA/DM and the PhD in Management: Designing Sustainable Systems.

Quantitative Research Paper

At the end of the Fall semester of the third year, students complete a Quantitative Research Paper. The objective of the quantitative research project is to generate a rigorous and valid quantitative empirical study that is guided by a hypothesized model of the student’s phenomena of interest. The study must be framed by current theoretical and empirical work within the area of interest. A robust research design is utilized that follows the material covered in the quantitative research courses including collecting and validating data in a way that mitigates biases. The student completes a systematic and rigorous quantitative analysis and interprets the analysis in a way that provides novel insight into the phenomena of interest. The quantitative research paper details the project and is written in a manner that meets high scholarly standards to merit publication in top-rated journals and outlets.

Integrative Paper

As a final requirement for the DBA/DM dissertation, each student writes an overview statement introducing his or her Qualitative and Quantitative Research Papers, making substantive observations and conclusions about each project, and presenting a personal reflective statement about each project’s significance to the author. The Research Proposal frames the dissertation overview in a preliminary way, but in light of the student’s experience in conducting qualitative and quantitative studies, the synthesis is rewritten, revised and critically evaluated to become the Integrative Paper. The approved Integrative Paper, Qualitative Research Paper and Quantitative Research Paper serve as the dissertation requirement of the DBA/DM program.

PhD in Management: Designing Sustainable Systems

Weatherhead’s Designing Sustainable Systems track in the PhD in Management (https://weatherhead.case.edu/degrees/phd-management/designing-sustainable-systems/) program offers an extension to the DBA/DM. This program is for DBA/DM students who wish to reorient their careers to formally pursue positions as academic researchers and scholars. DBA/DM students can apply for this degree program during their second year in the DBA/DM program.

Research Requirements and Deliverables

Although transdisciplinary research is the main focus of the 78-credit-hour PhD in Management: Designing Sustainable Systems track, candidates must be grounded in a disciplinary field. Therefore, throughout their course of study, candidates will read seminal works and acquire knowledge that leads to grounding in their chosen discipline(s) (for example, marketing, strategy, accounting, information systems, organizational behavior, finance or economics). Students are required to take a comprehensive exam demonstrating knowledge of the field’s theories, research methods and results. Upon passing the comprehensive exam, students are advanced to candidacy for the PhD. Candidates defend their PhD thesis proposal and the final thesis during their course of study.

PhD in Management

A PhD in management offers students the opportunity to develop theory-driven scholarship that is grounded in practice and explores various dimensions of value creation and to prepare for a career as a faculty member.

Candidates may specialize in one of three areas:
- Accountancy
- Designing Sustainable Systems
- Design & Innovation

Accountancy

The PhD in accountancy is structured and a student study plan is developed to support high-quality research and effective teaching based upon knowledge and skill levels appropriate to a student’s goals. Doctoral students work with faculty whose research investigates matters of importance to academics, practitioners and policy makers, in order to influence practice and standard setting in both the private and public sectors.

Curriculum

The first two academic years are directed toward the study of the literature, methods and recent research appropriate to a student’s identified interests. Most summer periods are available for individual reading, development and writing along project lines to be determined by the student’s chair and program committee. This two-year period is expected to provide the foundation for preparing well-developed research papers that exhibit knowledge and skill levels appropriate to an individual’s goals as he or she approaches candidacy.

The third year is devoted to writing-focused individual papers leading to a dissertation proposal under the supervision of a study program committee. Based upon one of these high-quality research papers, a suitable dissertation proposal will be prepared by the end of the third year of study. This research and writing activity will not only help to determine the student’s dissertation topic but will also be considered equivalent to field examinations. The series of papers leading up to the dissertation proposal, the proposal itself and an oral presentation to the student’s study program committee will be taken into account as the committee determines whether to grant doctoral candidate status to the student.

The fourth year is focused upon completion of the dissertation. The student will also prepare documents necessary and helpful for the acquisition of a full-time academic appointment. Most students will also be engaged in the revision of submissions of academic work to journals in the accounting discipline. Throughout the program, the student will
develop competencies related to classroom and teaching activities as well.

For more information, visit our website (http://weatherhead.case.edu/ degrees/phd-management/accountancy/) or contact Elaine Iannicelli (elaine.iannicelli@case.edu), department administrator, at 216.368.4141.

Designing Sustainable Systems
Please refer to the Doctor o (p. 19) Business Administration (p. 19) section of the Bulletin for more information on the PhD in Management: Designing Sustainable Systems.

Design & Innovation
The PhD in Management Design & Innovation brings together the disciplines of information systems and marketing to prepare scholars for path-creating research on consequential issues faced by organizations and managers.

This world-class management doctoral degree program in the Department of Design & Innovation seeks to develop scholars who:

- Challenge conventional wisdom
- Think critically and creatively
- Are skilled in rigorous research methods that transcend the qualitative/quantitative divide
- Desire a career addressing significant organizational problems

We value thought and action that better the lives of people, contributes to a just society and maintains a sustainable environment. Our objective is to be recognized globally as a distinctive force in management research that is founded on interdisciplinary, outward-looking faculty collaboration and that addresses deep problems confronting today’s organizations.

Program Features
Weatherhead’s PhD in Management with a concentration in Design & Innovation is focused on interdisciplinary research and trains academic scholars for faculty positions in information systems, strategy, management and marketing at leading business schools.

PhD students will generally engage with problems grounded in practice, building on traditions in the disciplines of information systems, strategy and marketing. The PhD program encourages a hands-on education, broad exposure to technique, close association with industry and intensive workshops with senior faculty.

Certificate of Achievement in research skills for Quantitative Methodologies (AQM)
Graduate students at Case Western Reserve University can specialize in advanced analytics for applied research and study by earning this certificate of Achievement in research skills for Quantitative Methodologies (AQM). Learn more about the AQM certification requirements and eligibility.

Curriculum
The organizing principles for the program are to:

- Provide rigorous interdisciplinary training in theory and methods through core courses
- Challenge students to develop research articles in each year of study that draw from their interdisciplinary training

The PhD in Management program consists of coursework in three areas and a dissertation. Coursework in the following areas is required: general management research and methods, specialization research and a minor area of study.

Sample First Year
<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DESN 527</td>
<td>3</td>
</tr>
<tr>
<td>Intro to Philosophy of Science</td>
<td></td>
</tr>
<tr>
<td>NURS 630</td>
<td></td>
</tr>
<tr>
<td>Advanced Statistics: Linear Models</td>
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</tr>
<tr>
<td>Qualitative Methods</td>
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</tr>
<tr>
<td>NURS 631</td>
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</tr>
<tr>
<td>Advanced Statistics: Multivariate Analysis</td>
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<tr>
<td>MGMT 571</td>
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<tr>
<td>Measurement Theory and Method</td>
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<tr>
<td>DESN Elective</td>
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</table>

Sample Second Year
<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT 573</td>
<td></td>
</tr>
<tr>
<td>Applied Multivariate Data Analysis</td>
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</tr>
<tr>
<td>Department Seminar</td>
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</tr>
<tr>
<td>DESN Elective</td>
<td></td>
</tr>
<tr>
<td>DESN Elective</td>
<td></td>
</tr>
<tr>
<td>Minor Elective</td>
<td></td>
</tr>
<tr>
<td>Minor Elective</td>
<td></td>
</tr>
</tbody>
</table>

At the end of first and second year of study, each student will be expected to complete and present a publishable paper that draws from one of more of their courses of study and demonstrates their progress in the program.

Following the completion of all required coursework, students take a comprehensive qualifying examination, generally during the second summer semester or early in the fall semester of the third year. Upon successful completion of the comprehensive qualifying examination, the student is admitted to candidacy and formally begins the dissertation phase of the program.

Students will be expected to complete a teaching requirement as part of their PhD studies. This requirement includes engaging in teaching responsibilities for at least two full semesters (not including summer) as an instructor of an assigned course and/or assistant assigned to faculty teaching a course. Teaching responsibilities are governed by department priorities as determined by the chair.

Information Systems Specialization
A management discipline engaged in design- and information-based inquiry, information systems (IS) is influenced by a broad set of concepts from the humanities, social sciences and engineering. The IS faculty is a center of excellence for learning about the ways in which information is generated and used in organizations. We believe that a broad, theoretical study of information that includes human, social and technical aspects will best enable people in organizations to achieve their operational and strategic missions.

The program seeks intellectually curious students who possess a solid background in information systems or computer science; industrial, service, or interaction design; or related academic areas. The program prepares students for a career in research and teaching, primarily in academic institutions. We seek to attract rigorous lateral thinkers who want to shape their environments and build a strong scholarly track record in design principles for innovation.

Marketing Specialization
As a discipline, marketing lies at the core of the purpose of management—to create and deliver value to customers, shareholders and society at large. As a profession, marketing serves an organization’s vital interests—to manage capabilities for value creation and delivery at organization—
customer and organization—society interfaces. Technology, information and globalization are rapidly changing how organizations interact with customers to create and deliver value.

The marketing faculty is a center of excellence for the study and management of valued customer relationships. We view brands, offerings, interactions and interfaces as design elements and our crucibles for innovation. We recognize that fascinating opportunities for design and innovation lie in dynamic markets that are increasingly rich in information, social in networks, and flat in connectivity.

Qualified students will have a demonstrable record of intellectual curiosity, academic excellence and industry experience with a marketing orientation. We value diversity and encourage students with academic work in basic and social sciences including engineering, health and law to apply, in addition to those with business backgrounds. A master’s degree with at least two years of industry experience is a must.

For more information about the PhD in Management Design & Innovation, visit our website [https://weatherhead.case.edu/degrees/doctorate/phd-management/design-and-innovation/](https://weatherhead.case.edu/degrees/doctorate/phd-management/design-and-innovation/) or contact Gail Stringer (gcs23@case.edu), department administrator, at 216.368.5326.

### PhD in Operations Research

The intrinsic complexity of supply chain organizations and the coordination of operational and financial decisions throughout the supply chain are at the heart of the PhD in operations research. Weatherhead’s Operations Department has a rich history as a center of education and scholarship—it was here that the world’s first doctorate in operations research was granted. Candidates learn a unique combination of mathematics, statistics and computer modeling to assist in decision-making for complex organizational problems.

For more information, contact the department administrator, at 216.368.3202.

### PhD in Organizational Behavior

Weatherhead’s PhD in organizational behavior was the first of its kind. Graduating our first PhD students in 1964, our department set the standard for universities worldwide. United by a passion for generating new knowledge of enduring consequence through scholarly research, inquiry and writing as well as deeply reflective practice, doctoral students study in a department consistently ranked among the best in the world.

Recipients of our PhD in organizational behavior have taken positions in leading universities and research institutions such as the London School of Business, Columbia University, Stanford University and the Naval Post-Graduate School.

Organizational behavior is a vital and growing field of knowledge that is concerned with human and developmental processes across levels of analysis from individuals and groups through organizations, inter-organizational systems and societies. The academic roots of the field span the disciplines of individual and social psychology, sociology, anthropology, political science and social philosophy. Organizational behavior situates the knowledge and tools of those disciplines in the context of the human dimensions of organizational life.

We approach the study of organizational behavior from the perspective of human possibility, with a special concern for the dynamics and processes of development and for creating new knowledge of individual, group and organizational processes of learning, development and transformation.

### Goals of the Program

Our educational goals are to prepare PhD students to:

- Obtain a doctoral-level foundation in academic areas pertinent to organizational behavior, from the micro to the macro. This interdisciplinary course of study covers key social science domains such as psychology, sociology, learning theory, organization theory, living systems theory, management science and the organizational dimensions of global sustainability and change.
- Master and triangulate rigorous qualitative, quantitative and action-research methodologies in the quest for deep and comprehensive understanding.
- Develop a high level of professional creativity and interpersonal competence, as well as a foundation of professional values and ethics enabling the pursuit of research and teaching in the field, including the facilitation and design of contexts for human development and self-reflective learning, organization development and larger-system transformative change.

Our mission is to provide students with the knowledge, skills and values needed to: conduct the highest quality research and teaching in the field and sub-fields of organizational behavior and become leading scholars in careers as researchers and educators at the top levels of their specializations and in high-impact areas of society.

Our vision is clear to be a world-class center of doctoral education, known for our bold ideas, our powerful learning community and our commitment to value-driven knowledge for the betterment of organizations and the greater good. All of this is in clear and strong alignment with the aim of the Weatherhead School of Management at Case Western Reserve University "to develop transformational ideas and outstanding leaders for the betterment of business and society," and through this environment to have a transformational impact on all who teach, learn, discover and work here, so they are prepared and engaged to advance knowledge and serve humanity.

The philosophy of the Organizational Behavior Department ([http://weatherhead.case.edu/departments/organizational-behavior/](http://weatherhead.case.edu/departments/organizational-behavior/)) is rooted in human values. These values guide our behavior as we strive to enhance research, learning and academic excellence amidst the demands and complexities of everyday life. They also reflect the spirit of connectedness among us that gives life to the doctoral learning community as a whole. The following guiding ideas represent our aspirations and our community at our best:

- Knowledge of consequence
- Methodological rigor and variety
- A community of inquiry
- A deep value for diversity and inclusion
- Whole person development
- The life of the mind
- Academic innovation and excellence

### Curriculum

Our doctoral program is structured to resonate with our department’s mission of developing world-class researchers and educators interested in doing high-quality academic work of enduring consequence. Hence our program and course requirements encourage continual development of reading, writing, research methods, statistical skills and relational skills to
help students effectively study and communicate their ideas. Coursework is completed in the first two years of the program, as follows:

**Sample Course Schedule**

**First Year**

<table>
<thead>
<tr>
<th>Units</th>
<th>Fall</th>
<th>Spring</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORBH Dynamic Modules (3 each semester)</td>
<td>1.5</td>
<td>4.5</td>
<td>3</td>
</tr>
<tr>
<td>Research Methods I (ORBH 560)</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Advanced Statistics: Linear Models (NURS 630)</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Organizational Behavior Department Seminar (ORBH 510)</td>
<td>1.5</td>
<td>4.5</td>
<td>3</td>
</tr>
<tr>
<td>Year Total:</td>
<td>12</td>
<td>12</td>
<td>3</td>
</tr>
</tbody>
</table>

**Second Year**

<table>
<thead>
<tr>
<th>Units</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORBH Dynamic Modules (3 each semester)</td>
<td>4.5</td>
<td>3</td>
</tr>
<tr>
<td>Applied Multivariate Data Analysis (MGMT 573)</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Elective/Independent Study</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Organizational Behavior Department Seminar (ORBH 510)</td>
<td>1.5</td>
<td>3</td>
</tr>
<tr>
<td>Organizational Behavior Department Seminar (ORBH 510)</td>
<td>1.5</td>
<td>3</td>
</tr>
<tr>
<td>ORBH Dynamic Modules (3 each semester)</td>
<td>4.5</td>
<td>3</td>
</tr>
<tr>
<td>Elective/Independent Study</td>
<td>12</td>
<td>9</td>
</tr>
<tr>
<td>Year Total:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Units in Sequence: 48

The PhD in organizational behavior program is designed for full-time, year-round engagement. Although some students may take less or more time to complete the program, it is generally completed in four to five years.

Each semester during the first two years, students participate in the ORBH Dynamic Modules, which are a series of short courses, each meeting once a week for five weeks. These Modules are designed to introduce the knowledge bases and key research of organizational behavior and related fields as well as share the current research interests of the department’s faculty.

Students also participate each semester in the ORBH Research Seminar, which is designed to create and sustain an intellectually nourishing and appreciative learning space for the entire community. The ORBH Research Seminar is required for both the first- and second-year cohort groups. It includes gatherings of the department’s learning community of doctoral students and faculty. It provides a forum for discussion and advancement of ongoing research and scholarship through preparation and presentation of Integrative Scholarship Papers, Qualifying Papers, Dissertation Proposals and Dissertation Defenses. Thus the ORBH Research Seminar is a department-wide platform for developing productive and collaborative research relationships and for increasing collective knowledge of the current state of organizational behavior and related fields.

**Research Requirements and Deliverables**

The coursework is delineated for the first two years of the PhD. This provides a strong theoretical foundation for conducting future research. Other program requirements include the following:

**Integrative Scholarship Paper**

By the end of the spring semester of the first year, each doctoral student is required to complete an Integrative Scholarship Paper (ISP). This is a critical review and integration of the literature about a topic or problem of interest. It can be thought of as a report on the current state of the scholarly conversation about the topic, encompassing historical perspectives on the evolution of the scholarly conversation to date, an examination of how the topic is approached by different disciplines or schools of thought, theoretical propositions and suggestions for future research. The ISP is reviewed by the faculty advisor and a faculty reader, and upon approval is included in the department’s working paper series. Beyond the first year, students are expected to work with their faculty advisor and others to submit their ISPs for consideration for conference presentation and journal publication during their second and subsequent years of the doctoral program.

**Qualifying Paper**

During the summer of their second year in the doctoral program, students complete a Qualifying Paper. Generally, this is an initial empirical investigation or meta-analysis of the topic of choice. The student is expected to form a committee, headed by a faculty advisor of the student’s own choosing and two other departmental faculty members who guide the research. Often understood as a mini-thesis or pilot study, the student is expected to produce an in-depth analysis of the research question explored through a relevant method of inquiry. Students are expected to submit their qualifying paper for consideration for conference presentation and journal publication during their third and subsequent years of the doctoral program.

**Dissertation**

Doctoral students undertake dissertation research after completion of their qualifying paper. Each student forms a committee, consisting of three departmental faculty members (one of whom will be the committee chair) and one faculty member from outside the department but within the university, to guide the research conducted. An original and significant endeavor, the dissertation includes a detailed review of the chosen topic, relevant research questions, research methods, findings obtained and an analysis of their implications.

Though all three deliverables (the ISP, Qualifying Paper and Dissertation) may optimally flow within a single stream of inquiry, the student is free to choose a different topic of interest for each.

For more information, contact Lila Robinson (lila.robinson@case.edu), department administrator, at 216.368.2055.
Dual-Degree Programs

MBA/Doctor of Medicine (MD) Dual-Degree Program
The School of Medicine and Weatherhead collaborate to offer the MBA/MD dual-degree program. The MBA/MD provides physicians with the management knowledge and skills necessary to deal with rapid changes in the healthcare industry and economy. After completion of both degree programs, two separate diplomas are awarded. Coursework for both programs is usually completed within five years, and it must be completed within six years of the date of initial enrollment in either program.

To learn more, contact Weatherhead at 216.368.2030 or wsomadmissions@case.edu, or the School of Medicine at 216.368.3450 or casemed-admissions@case.edu.

MBA/Juris Doctor (JD) Dual-Degree Program
Weatherhead has a formal full-time dual-degree program with the School of Law. Students enrolled in the program who fulfill the requirements set for graduation by both schools will receive both an MBA and a JD degree. The MBA/JD dual-degree program is designed for individuals who want to specialize in the legal, contractual and governmental aspects of management. After completion of both degree programs, two separate diplomas are awarded. Coursework for both programs must be completed within six years of the date of initial enrollment in either program.

To learn more, contact Weatherhead at 216.368.2030 or wsomadmissions@case.edu, or the School of Law at 216.368.3600 or lawadmissions@case.edu.

MBA/Master of Science in Social Administration (MSSA) Dual-Degree Program
The MBA/MSSA dual-degree program is offered in partnership with the Jack, Joseph, and Morton Mandel School of Applied Social Sciences (MSASS) and Weatherhead. The MBA/MSSA dual-degree program is designed for candidates who wish to prepare for advanced social work practice in a variety of direct practice and community practice settings/or organizations while developing the skills to assume management responsibility within those settings. Candidates must apply separately to each program.

To learn more, contact Weatherhead at 216.368.2030 or wsomadmissions@case.edu, or Mandel School at 216.368.1655 or msass.case.edu/admissions (http://msass.case.edu/admissions/).

MBA/Master in Public Health (MPH) Dual-Degree Program
The MBA/MPH dual-degree program was developed by the School of Medicine, the School of Graduate Studies and Weatherhead to provide the skills and knowledge necessary for those who wish to attain the following goals:

- A career working with communities to improve the health of their members by identifying and assessing the health needs of the population and planning and implementing programs to meet those needs
- Management and leadership ability to ensure continued economic viability, human development and effective communication for the public health organization and community in which they practice

MBA/MPH candidates must complete separate applications, participate in the required admission tests and be admitted separately to each program.

To learn more, contact Weatherhead at 216.368.2030 or wsomadmissions@case.edu, or the School of Medicine at 216.368.0875 or daniel.tisch@case.edu.

MBA/Master of Science in Management-Finance (MSM-Finance) Dual-Degree Program
Weatherhead offers a dual-degree program that is ideal for students interested in gaining the management skills to create sustainable value for business and society, along with specialized skills that prepare them to make immediate contributions in careers in corporation finance, investment banking, equity research, investment management, risk management and corporate consulting.

A student can submit one application to be admitted into the dual-degree program but will be considered for each program separately. A student currently in the first year of the Weatherhead full-time MBA program can also apply to be admitted into the dual-degree program. A motivated student may be able to complete both degrees in just five semesters (https://weatherhead.case.edu/degrees/masters/dual-degree/mba-msm-finance/curriculum/).

- Learn breakthrough business concepts from the people who invented them
- Realize cross-disciplinary collaboration making creativity as vital as quantitative analysis
- Receive direct exposure to top employers to learn about career opportunities

To learn more, contact Marybeth Keeler (mxk761@case.edu), program manager, at 216.368.3688.

MBA/Master of Science in Medical Physiology (MS) Dual-Degree Program
The MBA/MS Medical Physiology dual-degree is offered by the School of Medicine and Weatherhead School of Management to provide the skills and knowledge necessary for those who wish to attain the following goals:

- Find career opportunities in healthcare consultation, hospital administration, hospital operations, pharmaceutical project management and more
- Enhance their chances of admission to medical school, osteopathic school, dental school, a PhD program or other related programs

MBA/MS Medical Physiology candidates must complete separate applications, participate in the required admission tests and be admitted separately to each program.

To learn more, contact Weatherhead at 216.368.2030 or wsomadmissions@case.edu, or the School of Medicine at msmpadmissions@case.edu.

MBA/Master of Science in Biochemistry (MS) Dual-Degree Program
The MBA/MS in Biochemistry dual degree is offered by the School of Medicine and Weatherhead School of Management to provide the skills and knowledge necessary for those who wish to attain the following goals:
• Participate in the fields of medical research and management as well as give students an opportunity to develop expertise in areas of substantive interest
• Realize cross-disciplinary collaboration that prepares practitioners to adapt to the changing healthcare environment and create positive, sustainable change for their organizations
• Increase job opportunities that are at the intersection of translational science and business

MBA/MS in Biochemistry candidates must complete separate applications and be admitted separately to each program. Once students have been admitted, they will consult with the Department of Biochemistry Department Liaison and Associate Dean for Academic Affairs at the Weatherhead School of Management to determine their appropriate course of study.

To learn more, contact Weatherhead at 216.368.2030 or wsomadmissions@case.edu, or the School of Medicine at 216.368.3334 or the Department of Biochemistry (biochem_grad_programs@case.edu).

**Master of Science in Management-Healthcare (MSM-HC)/Master in Public Health (MPH) Dual-Degree Program**

Weatherhead and the School of Medicine collaborate to offer the MSM-HC/MPH dual-degree program. This program integrates into a single unified curriculum with graduate coursework from the healthcare management (MSM-HC) and public health (MPH) programs. The knowledge and skills this coursework develops will prepare students to identify opportunities to improve population health, design effective and sustainable solutions and effectively manage the execution of those solutions. The goals of this program are to improve the managerial skills of public health professionals and to increase the acumen of health system managers toward issues in population health. Coursework for the joint degree can be completed in two years if undertaken on a full-time basis.

To learn more, contact Weatherhead at 216.368.2030 or wsomadmissions@case.edu, or the School of Medicine at 216.368.0875 or daniel.tisch@case.edu.

**Weatherhead Center**

**Fowler Center for Business as an Agent of World Benefit**

The Fowler Center for Business as an Agent of World Benefit exists to create a world where business can prosper, human beings can flourish and nature can thrive.

The Fowler Center helps propel business success and flourishing enterprise through the belief that business is one of the most powerful and positive forces for advancing a better world. It’s a center that challenges, at every turn, what might be called “the great trade-off illusion”—the myth that doing good is at odds with doing well. We believe that increasingly, it’s exactly the opposite. Peter Drucker, one of our first advisors, said that he loved the phrase “business as an agent of world benefit” because of its opportunity focus. He was clear that every business exists to create value and advance a better society, just as every organ in the body is there to enable life and health. He declared something that completely transcended the great trade-off illusion:

“Every social and global issue of our day is a business opportunity in disguise... just waiting for the pragmatism of good business, its capacity for radical innovation and entrepreneurship and its management for results.”

We know from the best research available that today’s industry-leading stars are moving toward the strategy concept of sustainable or shared value—it’s an inseparable win-win mindset that says “doing good and doing well” is the most promising pathway to organizational success and significance, especially when coupled with the increasingly high expectations of stakeholders including millennials, the inherent interdependence of economy and nature, and the rapid rise of what’s being called the Purpose Economy.

The research, teaching and service mission of the Fowler Center is to be one of the world’s most powerful, science-based and inspiring organization development centers for the advancement of business success and what we call “full spectrum flourishing.” Our purpose is clear:

A world where business can excel, human beings can flourish and nature can thrive.

The Fowler Center’s primary focus is on for-profit organizations that use their core activities to create value for society and the environment in ways that create even more value for their customers and shareholders; its primary vehicle for effecting change is Positive Organizational Science and Appreciative Inquiry. We are drawing on expertise and tools such as design, sustainable value and Appreciative Inquiry to build and maintain prosperity and flourishing.

Companies embracing the notion of “full-spectrum flourishing” as part of their business strategy have seen huge benefits to their bottom line. These findings are reported in recent publications such as *Flourishing Enterprise* (Laszlo, Brown, et al., 2014), Dreammakers: Innovating for the Greater Good (Hunt, 2017), and *The Quest for a Flourishing Earth is the Most Significant OD Opportunity of the 21st Century* (Cooperrider, 2017).

The Fowler Center advances extraordinary business innovation and social entrepreneurship by turning the social and global issues of our day into business opportunities, much as Peter F. Drucker envisioned. The Fowler Center practices, researches and supports initiatives based on whole-system design for advancing the ‘how-to’ of flourishing enterprise, and works with businesses, organizations, industries and economic regions to discover the power and promise of flourishing as an innovation engine for doing good and doing well.

**Portfolio of activities**

The Fowler Center conducts research, teaching, service and applied work to accelerate a better world, one where business can excel, all people can flourish and nature can thrive. Our strategic portfolio includes:

1. **AIM2Flourish**: The search for the greatest business and society innovations in the world. This search fuels everything the Fowler Center does.
2. **Powerful Learning Environments for Students**: Pathways for student leadership advancement
3. **Custom Design Corporate Development**: Applied Business as an Agent of World Benefit
4. **Strategic Convening and Knowledge Alliances**, like the Global Forum Series
5. **Pioneering Scholarship**

The research activities of the Fowler Center include teaching cases and PhD research as well as books, book chapters and journal articles on
Appreciative Inquiry, sustainable value, design and flourishing enterprise. To carry out its agenda, the Fowler Center relies in part on its Fowler Center Doctor of Management Fellows, MBA Business as an Agent of World Benefit Fellows and other students of Case Western Reserve University.

The leadership of the Fowler Center is built on the vision and work of David Cooperrider, Ron Fry, Chris Laszlo and other faculty at the Weatherhead School of Management, working in close collaboration with the Fowler Center’s Advisory Board members and other leaders in the Case Western Reserve University community.

To learn more or to find out how you or your organization can get involved with the Fowler Center, visit our website (http://weatherhead.case.edu/centers/fowler/) or contact the Fowler Center at 216.368.2160.

### Policies

#### Registration and Academic Standards for Graduate Students

##### Change of Grading Basis

With Dean's Office approval, the grading basis can change from "Graded" to "Pass/No Pass" for elective courses. Students need to request the grading basis change prior to the last week of classes. No more than six hours of elective courses can have the grading basis change from "Graded" to "Pass/No Pass."

##### Class Attendance

Students are expected to attend all scheduled class meetings for the courses in which they are registered. Students should notify faculty when they are forced to miss a class because of extenuating circumstances. Faculty should report excessive absences to the program’s faculty director. Students who are not on the class roster for a course are not permitted to attend the course.

##### Course Loads

Weatherhead requires students to register for and complete courses as specified in their cohort program curriculum plan to continue in their program and maintain any scholarship granted. Failure to adhere to the program curriculum plan may result in separation from the program. Full time, three-quarter time, half time and less than half time enrollment information is provided by the University Registrar (https://case.edu/registrar/forms-services/enrollment-verification/).

##### Course Registration

A student may enroll during each registration period through the last day of late registration, as set by the official university calendar (https://www.case.edu/registrar/calendar/). Exceptions will be granted only upon the recommendation of the dean of Weatherhead. A fee of $25 is charged during the late registration period.

To register, students must have a clear balance unless they are participating in the Bridge Loan Program. Students eligible for the Bridge Loan Program need to submit a company tuition reimbursement letter, Bridge Loan application and fee each semester. Students register online using the Student Information System (SIS). Students who wish to apply for federal loans should visit the FAFSA website (http://www.fafsa.ed.gov/).

During any semester, a student may not register in more than one career in SIS, unless the student is in a dual-degree program.

If at any time a student fails to register in two consecutive semesters, excluding the summer session, the student must reapply for admission to Weatherhead, unless prior approval was granted by the Weatherhead registrar.

#### Degrees Conferred

Case Western Reserve University grants degrees to qualified candidates three times per year: in August, for students who complete their programs during the summer semester; in January, for students who complete their programs during the fall semester; and in May, for students who complete their programs during the spring semester.

There is only one diploma ceremony (http://case.edu/events/commencement/) each year, in May, and all candidates are invited to march at this ceremony, regardless of the month in which their degree was awarded. May degree candidates receive their diplomas the day of the ceremony. May degree candidates who do not participate in the ceremony can choose to have their diploma mailed to them or can collect it at the Weatherhead registrar’s office. January and August degree recipients can have diplomas mailed or held for pick up. Students may not receive diplomas prior to the date on which the degree is to be granted.

#### Extra Assignments

No student is permitted to do extra assignments beyond the work assigned to all students in a course in order to obtain a higher grade. This policy applies to changing an I (Incomplete) grade to a regular grade or to changing one regular grade to another. However, faculty may replace or substitute assignments for individual students in a course, based on extenuating circumstances.

#### Grades

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Meaning</th>
<th>Quality Points</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent</td>
<td>4</td>
<td>No degree credit awarded</td>
</tr>
<tr>
<td>B</td>
<td>Good</td>
<td>3</td>
<td>Degree credit awarded</td>
</tr>
<tr>
<td>C</td>
<td>Fair</td>
<td>2</td>
<td>No degree credit awarded</td>
</tr>
<tr>
<td>D</td>
<td>Passing</td>
<td>1</td>
<td>No degree credit awarded</td>
</tr>
<tr>
<td>F</td>
<td>Failure</td>
<td>0</td>
<td>Degree credit awarded</td>
</tr>
<tr>
<td>R</td>
<td>Completion of the first semester of a two-semester course</td>
<td>No degree credit awarded</td>
<td></td>
</tr>
<tr>
<td>P</td>
<td>Pass</td>
<td>0</td>
<td>Degree credit awarded</td>
</tr>
<tr>
<td>NP</td>
<td>No pass</td>
<td>0</td>
<td>No degree credit awarded</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete</td>
<td>0</td>
<td>No degree credit awarded</td>
</tr>
<tr>
<td>AD</td>
<td>Successful audit</td>
<td>0</td>
<td>No degree credit awarded</td>
</tr>
<tr>
<td>NG</td>
<td>No grade, unsatisfactory audit</td>
<td>0</td>
<td>No degree credit awarded</td>
</tr>
<tr>
<td>W</td>
<td>Withdrawal from a class</td>
<td>0</td>
<td>No degree credit awarded</td>
</tr>
<tr>
<td>WD</td>
<td>Withdrawal from all courses in a semester</td>
<td>0</td>
<td>No degree credit awarded</td>
</tr>
</tbody>
</table>
Midterm Grades

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Meaning</th>
<th>Quality Points</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>Satisfactory</td>
<td>0</td>
<td>No degree credit awarded</td>
</tr>
<tr>
<td>U</td>
<td>Unsatisfactory</td>
<td>0</td>
<td>No degree credit awarded</td>
</tr>
</tbody>
</table>

Grade of Incomplete (I)

The grade I is assigned at the discretion of an instructor, provided that two criteria are met:

- There are extenuating circumstances, explained to the instructor before the assignment of the grade, which clearly justify an extension of time beyond the requirements established for other students in the class. It is the student’s responsibility to notify the instructor of the circumstances that prevent completion of the course.
- The student has been passing the course and only a small segment of the course, such as a term paper, remains to be completed, for which the extenuating circumstances justify a special exception.

In order to receive credit for an I, the student must complete the work by the date specified by the instructor, and no later than the end of the next regular semester (fall or spring semester).

In the absence of notification or adequate justification, the I will automatically change to F or NP (depending on the grading basis for the course) on the stated deadline.

If the student wishes to petition to extend a grade of I beyond the stated deadline, the student must obtain approval from the faculty member who assigned the I, and from the program’s faculty director, before the deadline. A request must be made in writing, preferably via email, and convey (a) the extenuating circumstances justifying the extension and (b) the expected date of completion of the work. If approved, the request should be initialed by the faculty member and delivered by the student to the faculty director for approval and then to the Weatherhead registrar.

Failure to complete course requirements by the extended date will result in a grade of F or NP depending on the grading basis for the course.

Graduation Requirements

A cumulative GPA of 2.5 in all graduate courses taken for credit in the MAcc, MBA, MPOD and MSM degree programs is required for graduation. Candidates must submit an application for graduation in SIS no later than two months before the graduation date at which their degree is expected to be awarded. The candidate is responsible for filing the application. Students are advised to contact the Weatherhead Registrar’s Office (https://intranet.weatherhead.case.edu/registrar/contact/) if they have any questions regarding requirements for graduation.

Leave of Absence

If a student will not be taking classes for more than one semester, the student should request a one-year leave of absence. Approval for any leave of absence from a degree program must be requested in writing by the student. This request for approval should be submitted to the faculty director of the program and the Weatherhead registrar. Unapproved interruption in the program sequence constitutes separation from the program.

Retroactive leaves of absence are not permitted. Students who fail to return upon completion of a leave of absence need to re-apply to the program. Students must graduate within six years from the start of their first semester at Weatherhead. A leave of absence does not extend the maximum time permitted for the completion of degree requirements. A leave of absence cannot be taken if students are on an approved extension of the time limit to complete their degree.

Registration

Students generally register for classes and make changes to their schedule using SIS. Step by step information on registering for classes is available online (https://case.edu/registrar/sites/case.edu.registrar/files/2018-09/Student%20-%20Registering%20for%20Classes.pdf). For assistance with this process, students must contact the Weatherhead registrar (https://intranet.weatherhead.case.edu/registrar/contact/) at 216.368.5900 before the last day of the drop/add period.

Repeat Policy

In general, Masters students can take a course for credit only one time. MAcc, MBA, MPOD and MSM students who earn a grade of F in a core course must repeat the course, or an equivalent course as approved by the faculty program director. Graduate students can repeat Curricular Practical Training or the equivalent, Independent Study/Special Problems and Topics and International Institute/study abroad electives. Full semester study abroad experiences at an international school are not repeatable. DBA students who earned a grade of NP in a doctoral course are required to repeat the course and earn a P.

Residency

For the DBA program:

In-person presence at each residency is critical for success in the DBA program. Student participation at the residency sessions is obligatory. Students are expected to attend each residency and each class and to participate throughout the program with classmates in small groups, team projects and practicums. If unavoidable absences arise, these should be approved in advance and accommodation should be reached with the faculty member(s) in question to make up the content.

For the EMBA program:

In-person presence at each residency is critical for success in the EMBA program. Students are expected to attend each residency and each class. If unavoidable absences arise, these should be approved in advance and accommodation should be reached with the faculty member(s) in question to make up the content.

For the MPOD program:

In-person presence at each residency is critical for success in the MPOD program. Students are expected to attend each residency and each class and to participate throughout the program with classmates in small groups, team projects and practicums. If unavoidable absences arise, these should be approved in advance and accommodation should be reached with the faculty member(s) in question to make up the content.

Retention Requirements

All students are required to follow their curriculum plan and graduate with their cohort. If at any time a student fails to register in two consecutive semesters, excluding the summer session, the student must reapply for admission to Weatherhead, unless prior approval was granted by the Weatherhead registrar.

For the MAcc, MBA, MPOD and MSM degree programs:
Transfers and Waivers

No transfers, waivers or substitutions are accepted for full-time MBA, EMBA, MPOD or MAcc.

For MS-M-Finance, MS-M-ORSC, and MS-M-Business Analytics:

Upon approval of the faculty program director, MS-Finance, MS-ORSC and MSM-Business Analytics students may substitute up to nine credit hours of coursework if comparable CWRU courses have been completed.

For MS-M-Healthcare:

Students may transfer up to six credit hours of prior course work from an AACSB-accredited university to replace elective classes only with approval from the faculty director and the Weatherhead registrar. No course in which the student received a grade lower than a B will be accepted. Graduate courses completed more than five years prior to the start of the MBA program are not eligible for transfer credit. If a transfer credit request is approved, upon completion of the course, it is the student’s responsibility to provide the Weatherhead Registrar’s Office with an official transfer transcript. Courses cannot be transferred without an official transfer transcript. Quarter hours convert to semester hours with a conversion of 0.67 semester hours for every 1.0 quarter hours.

Legacy part-time students who entered the part-time MBA program prior to the 2011 fall semester must complete the Petition for Transfer Credit Form and submit the required accompanying documents (a current course description and the course syllabus). Core courses are not eligible for transfer credit. Transfer approval, in this case, is required from the Weatherhead registrar, the faculty program director, the department chair and the Dean’s Office. Legacy part-time students should contact the Weatherhead Registrar’s Office for the Petition for Transfer Credit Form.

Withdrawals

To withdraw from courses during a semester, the student may either initiate a request to withdraw in SIS or contact the Weatherhead registrar (https://intrnet.weatherhead.case.edu/registrar/contact/) before the last day of classes. All withdrawals after the official drop/add period will result in a grade of W (WD if withdrawing from all classes) on the student’s transcript. A student withdrawing after the last day of classes will receive the grade of F unless, in the judgment of the program’s faculty director, there are valid reasons for recording the grade of W.

For part-time MBA:

Students who entered the program in fall 2011 and after may transfer up to six credit hours of prior course work from an AACSB-accredited university to replace elective classes only with approval from the faculty director and the Weatherhead registrar. No course in which the student received a grade lower than a B will be accepted. Graduate courses counted toward another degree are not eligible for transfer credit.

Courses completed more than five years prior to the start of the MBA program are not eligible for transfer credit. If a transfer credit request is approved, upon completion of the course, it is the student’s responsibility to provide the Weatherhead Registrar’s Office with an official transfer transcript. Courses cannot be transferred without an official transfer transcript. Quarter hours convert to semester hours with a conversion of 0.67 semester hours for every 1.0 quarter hours.

Legacy part-time students who entered the part-time MBA program prior to the 2011 fall semester must complete the Petition for Transfer Credit Form and submit the required accompanying documents (a current course description and the course syllabus). Core courses are not eligible for transfer credit. Transfer approval, in this case, is required from the Weatherhead registrar, the faculty program director, the department chair and the Dean’s Office. Legacy part-time students should contact the Weatherhead Registrar’s Office for the Petition for Transfer Credit Form.

Academic Integrity Policy

This policy comprises the standards of academic integrity in the graduate programs of the Weatherhead School of Management at Case Western Reserve University and sets forth the procedures to be followed by the dean, faculty and staff in cases in which students are alleged to have violated the Academic Integrity Policy. This policy does not address alleged violations and disciplinary actions in the undergraduate programs. Such matters are addressed at the university level.

Academic integrity is vital to the Weatherhead graduate programs’ learner-centered approach to management education. A deep commitment to learning and honesty on the part of every student is crucial. Every student is expected to respect the learning process, to enhance it and to strenuously avoid any activity that might corrupt it. Students are required to report observed violations of the Weatherhead code of academic conduct. Faculty, the dean and administration also have a crucial role in upholding academic integrity at Weatherhead and
To maintain and consolidate information on prior academic integrity violations and associated consequences, prior to each academic year, Council will designate one Academic Integrity Officer (AIO) and one Associate Academic Integrity Officer (AAIO) from the full-time faculty to serve a term of one year of service during the coming academic year, renewable up to five years based upon the respective individuals’ willingness and ability to fulfill the respective roles. Council will carefully consider the fit between the workload demands of the AIO and AAIO and the characteristics of the individuals, including such things as the individuals’ tenure, rank and previous involvement in other Weatherhead committees related to Weatherhead curriculum. To fulfill the responsibilities of the AIO, the individual will be provided with the appropriate administrative support.

The AIO is the first contact for allegations of violations of the code of academic conduct, as explained below. The AAIO is appointed for two purposes. First, the AAIO serves as a backup for the AIO in the event that conflicts of interest or other obligations prevent the AIO from fulfilling AIO duties in a given case. Second, Council selects the AAIO with the idea that the AAIO may become the succeeding AIO when the AIO’s term is concluded, whereupon Council will designate a replacement AAIO. The expectation is that the AIO and the AAIO will work together on academic integrity issues that arise.

If a student witnesses an activity that appears to violate the code of academic conduct, that student must take proper action to address or curtail the activity. Proper action may include confronting the individuals involved, requesting that the instructor clarify the guidelines for appropriate conduct, and reporting the activity to the instructor or the AIO. Provision will be made for an anonymous reporting channel as necessary.

In the event that a faculty member has reasonable grounds to suspect that a student has violated the Weatherhead Code of Academic Conduct, the faculty member must consult the AIO. The purpose of the consultation is fourfold: (1) to provide the faculty member with an awareness of precedents for the violation in question, (2) to maintain consistency across departments in the Weatherhead, (3) to determine whether the student has prior violations and (4) to allow the faculty member and the AAIO to determine whether additional information should be gathered about the alleged incident and by whom. If the student has had prior offenses, a hearing must be conducted.

A faculty member may resolve the violation without a hearing if the following four conditions are met: (1) the incident and sanction have been reported to the AIO, (2) the student admits to the violation, (3) based on the best information available, it is the student’s first violation and (4) the student accepts the sanction proposed by the faculty member. If the student does not accept the faculty member’s proposed sanction, the student has one week from that refusal to request a hearing. The minimum sanction in such cases is failure in the course in question, the maximum sanction is failure in the course. In addition, any student guilty of an academic integrity violation shall not be permitted to participate in the evaluation process for either the faculty member(s) who brought the allegation or the course in which the violation occurred.

If any one of the four conditions noted above is not met, or if the faculty member concludes that the seriousness of the offense warrants a hearing, a hearing must be convened in accordance with the procedures outlined below. In addition, students found guilty of an academic integrity violation shall not have the same rights as other students to participate in the course/instructor evaluation process. A separate policy document regarding this can be obtained from the AIO.

If a hearing is warranted then a maximum penalty can include failure in the course and expulsion.

**Procedures for Conducting Academic Integrity Disciplinary Hearings**

**Initial Steps**

1. The faculty member or other individual alleging the academic integrity violation shall prepare a written, signed statement containing a description of the acts constituting the alleged violation of the Code of Academic Conduct, including dates, times, locations and names of individuals involved. The written statement shall include all supporting evidence that is pertinent to the alleged violation.

2. The individual shall submit the statement to the AIO. The AIO will review the statement to determine whether the written statement contains sufficient information to warrant further investigation. The AIO shall also notify the university’s Office of Student Affairs of the
Hearing Process
1. After receiving all written statements and any other pertinent information, the AIO shall convene an ad hoc hearing committee comprised of the following individuals: (a) one student, and (b) two full-time regular faculty members. One non-voting administrative staff member shall also attend to take minutes of the proceeding. The members of the committee will elect one member to serve as chair with the staff member recording the minutes. The AIO shall approach student government and allow that organization to nominate the student representative. If student government does not respond, the AIO shall appoint a student representative.

2. Prior to the hearing, the ad hoc hearing committee members will be provided with the written documents concerning the alleged incident and any other pertinent information.

3. The ad hoc hearing committee will establish a hearing date and communicate the date to all parties involved. Prior to the hearing date, the student in question shall have access to all written documents and any other information the ad hoc hearing committee has reviewed. For these purposes, the committee should be aware that privacy concerns or related legal issues may prevent the sharing of certain information with the student. For example, cases may arise in which the sharing of certain information may violate the Family Education Rights and Privacy Act (FERPA). In such cases, the committee will consult with the university’s legal counsel.

4. All members of the ad hoc hearing committee must be present at the hearing.

5. The student may be accompanied and assisted by an adviser. The adviser shall not be permitted to participate in the hearing except to advise the student.

6. The faculty member bringing the academic integrity matter to the hearing ordinarily must be present at the hearing. However, if the AIO determines that no material issue of fact exists, the faculty member’s presence is not required.

7. Minutes of the hearing will be recorded by the staff member referenced in item 1 of this section.

8. The student shall have the opportunity to argue his or her defense and to present supporting evidence and witnesses. The student shall have the opportunity to hear and question witnesses against him or her by directing all such inquiry through the person chairing the meeting.

9. The hearing committee shall have the authority to reasonably limit the time for testimony for each witness, including the testimony of the student in question.

10. After the hearing, the committee shall convene to discuss the information presented. The committee shall make a written recommendation at this time. The recommendation shall be made to the dean no later than one week after the hearing. The dean will make the final decision regarding the outcome of the hearing.

11. The recommendation may include discipline up to and including expulsion. The student will receive a copy of the committee’s recommendation.

Sanctions and Appeal Process
1. The dean shall have the authority to accept, reject or modify the hearing committee’s recommendation, after consultation with the AIO and, if possible, the AAIO. The student shall have the right to present in writing his or her basis for requesting acceptance, rejection or modification. The dean shall communicate his or her decision in writing to the student and the committee.

2. In no event will a student be suspended from classes or expelled prior to a final resolution of the charges, except in cases where the dean believes the student’s presence on campus presents a risk to the university community.

3. The procedures set forth herein do not preempt the jurisdiction and disciplinary processes of other university bodies that retain their own concurrent jurisdiction to investigate and enforce their own rules and impose their own disciplinary measures. In circumstances in which different disciplinary findings or measures may be imposed by different bodies, the more severe shall have precedent.

4. A student found in violation of the academic integrity policy has the right to appeal the original decision to the Provost’s Office according to the following procedures: An appeal of a decision must be submitted in writing and postmarked or hand-delivered to the provost or the provost’s designee within 10 calendar days after the date on which written notice of the decision was sent to the student. Each student shall be limited to one appeal. The decision of the appeal officer is final.

5. An appeal may be based only upon one or more of the following grounds: (a) procedural error, (b) misapplication or misinterpretation of the rule alleged to have been violated, (c) findings of facts not supported by a preponderance of evidence, (d) discovery of substantial new facts that were unavailable at the time of the hearing, or (e) that the disciplinary sanction imposed is grossly disproportionate to the violation committed.

6. The appeal officer shall dismiss the appeal if the appeal is not based upon one or more of the grounds set forth in section 5 immediately above. The appeal officer may decide the appeal based upon a review of the record. The appeal officer may request additional written information or an oral presentation from any relevant person(s) and then decide the appeal based upon the enhanced record.

7. The appeal officer may, after a review of the record, uphold the original sanction, dismiss the original sanction or impose a lesser sanction. An appeal officer may also remand the case to the original hearing body or refer the case to a new hearing officer or panel to be reheard. If possible, the new hearing officer or panel should be different from the one that originally decided the case. If a case is reheard by a hearing officer or panel, the sanction imposed could be greater or less than that imposed at the original hearing.

8. A student and hearing officer may agree in advance to minor deviations from procedure. Such deviations are not then subject to appeal. Other minor deviations are acceptable as long as such deviations are not found upon appeal to be unreasonably harmful to the student.

Standards of Conduct Beyond Academic Integrity
In addition to the standards set forth in the Academic Integrity Policy, Weatherhead students are subject to the university’s University Code...
of Conduct (https://case.edu/studentlife/conduct/university-code-conduct/). All students are expected to make themselves aware of those standards and refrain from engaging in any prohibited activities.

A student accused of any of the listed prohibited activities may be referred to the disciplinary conduct procedures described below.

**Disciplinary Conduct Procedures**

**Initial Steps**
1. The student, faculty member or member of staff making the allegation shall prepare a written and signed statement containing a complete description of the acts constituting the violation of the university Standards of Conduct, including dates, times, locations and names of individuals involved.
2. The written statement must be directed to the dean of Weatherhead who may choose a designee to administer the disciplinary proceedings. The dean or designee shall review the statement to determine whether the written statement contains enough information to warrant further investigation. The dean or designee shall also notify the university's Office of Student Affairs of the matter. The dean or designee and university Office of Student Affairs will work collaboratively on this matter to the extent appropriate.
3. If the dean or designee determines that further investigation is warranted, he or she may require that other parties involved make a written statement describing their knowledge of the incident. The student in question will be notified in writing of the nature of the charges against him or her.
4. The student will be notified that a hearing will be scheduled and that he or she will have the opportunity to defend himself or herself against the allegations and to have an adviser present at the hearing.

**Hearing Process**
1. After receiving all written statements and any other pertinent information, the dean or designee shall convene an ad hoc hearing committee consisting of two elected student officers, two full-time faculty members and one administrative staff member. The members of the committee shall elect one member to serve as chair.
2. Prior to the hearing, the hearing committee will be provided with the written documents concerning the alleged incident and any other pertinent information.
3. A hearing date will be decided upon and communicated to all parties involved. Prior to the hearing date, the student in question shall have access to all written documents and any other information the hearing committee has reviewed, unless the committee decides that it would be inappropriate to provide certain information to the student.
4. On the hearing date, all members of the hearing committee must be present.
5. The student may be accompanied and assisted at the hearing by an adviser. The adviser shall not be permitted to participate in the hearing except to advise the student.
6. Minutes of the hearing will be recorded.
7. The student shall have the opportunity to argue his or her defense and to present supporting witnesses. The student shall have the opportunity to hear and cross-examine witnesses against him or her by directing all such inquiry through the meeting chair, unless the committee deems that it would be inappropriate to permit cross-examination for certain witnesses.
8. The hearing committee shall have the authority to limit the time for testimony for each witness, including the testimony of the student in question.
9. After the hearing, the committee shall convene to discuss the evidence presented and to make a written recommendation. The recommendation will be made to the dean or designee no later than one week after the hearing.
10. The recommendation may include discipline up to and including suspension and expulsion. The student shall receive a copy of the committee's recommendation.

**Sanctions and Appeal Process**
1. The dean or designee shall have the authority to accept, reject or modify the hearing committee's recommendation. The dean or designee shall communicate his or her decision in writing to the student and the committee. The student shall have the right to present, in writing, a request for acceptance, rejection or modification no later than one week after receiving the decision.
2. In no event will a student be suspended from classes or expelled prior to a final resolution of the charges, except in cases where the dean or designee believes that the student's presence on campus presents a risk to the university community.

The procedures set forth herein do not preempt the jurisdiction and disciplinary processes of other university bodies, which retain their own concurrent jurisdiction to investigate and enforce their own rules and impose their own disciplinary measures. In circumstances where different disciplinary findings and/or measures may be imposed by different bodies, the more severe sanction shall take precedence.

**Grievance Procedures**

Staff and faculty members have an important role to play in supporting the best possible learning environment. In the event that a student feels unjustly affected by a non-disciplinary academic or administrative action, he or she may grieve the action or decision in the following manner:

1. The student should bring his or her complaint directly to the person responsible for the action in question. The student should make an effort to resolve the problem informally. If the matter involves a complaint with a faculty member, the student should first approach the faculty member directly. If those efforts are not successful, the student should bring the matter to the appropriate department chair to make additional attempts at informal resolution.
2. If efforts at informal resolution of the problem are not successful, the student shall prepare a written statement within a reasonable period of time after the action or decision that gives rise to the grievance. The statement shall contain the following:
   - Date of the grievance
   - Brief description of the alleged unjust academic or administrative action or decision
   - Names of individual(s) involved
   - Explanation of previous attempts to resolve the problem(s)
   - Action(s) that the student believes should be taken to resolve the problem
3. The written statement shall be directed to the director of student experience.
Awards presented independent of nominations are:

opportunities.

service opportunities to Weatherhead and promotes external service inside and outside of Weatherhead, brings community
to a Weatherhead graduate student who participates in community
The
Weatherhead student organizations, activities or programs.

student life activities; and creates, revitalizes or provides added value to
activities and events; encourages and supports student participation in
student who actively participates in and supports Weatherhead student

The
Leader.

Student Association and/or a Weatherhead School of Management
way, contributes to the total community and stimulates the classroom
all students. The recipient promotes the Weatherhead image in a positive
Weatherhead graduate student who serves as a leader and role model for
The
demonstrates leadership qualities and promotes Weatherhead in a
contributes to one or more professional societies or organizations,
supervisors, is an active member of community nonprofit organizations,
colleague in Cleveland's professional community by his or her peers and
attaining the highest GPA in each degree program.

Dean's Academic Achievement Award
to the student or students

Beta Gamma Sigma: Master's students graduating in the spring who
are in the top 20 percent of their graduating class (summer, fall and
spring graduates) are invited to join in the semester they complete
their program. Master's students graduating in the summer and fall
who are in the top 20 percent of their graduating class (summer, 
fall and spring graduates) are invited to join in the spring semester
following completion of their program. Doctoral students graduating
in the spring are invited to join in the semester they complete their
program. Doctoral students graduating in the summer and fall are
invited to join in the spring semester following completion of their
program.

Weatherhead School of Management
Faculty
Accountancy Faculty
Heidi Blakeway-Phillips, MBA, CPA
(London Business School/Columbia Business School)
Assistant Professor, Accountancy
Karen W. Braun, PhD, CPA
(University of Connecticut)
Professor, Accountancy
Anthony Bucaro, PhD, CPA
(University of Illinois at Urbana-Champaign)
Assistant Professor, Accountancy
Melissa Carlisle, PhD, CPA
(Georgia Institute of Technology)
Assistant Professor, Accountancy
Dennis Conrad, MAcc, CPA
(Case Western Reserve University)
Associate Professor, Accountancy
Timothy J. Fogarty, PhD, JD, CPA
(Pennsylvania State University, State University of New York at Buffalo)
Thomas M. Dickerson Faculty Fellow; Professor, Accountancy
Gregory Jonas, PhD, CMA
(Virginia Commonwealth University)
Senior Associate Dean, Academics and Graduate Programs; Associate
Professor, Accountancy
John Keyser, PhD
(Case Western Reserve University)
Assistant Professor
Thomas A. King, DM, CPA
(Case Western Reserve University)
Chair and Professor, Accountancy; Faculty Director, Master of Accountancy
Sharon L. Martin, MBA, CPA
(Baldwin Wallace University)
Associate Dean, Finance and Administration; Associate Professor, 
Accountancy

Graduate Student Honors and Awards
All Weatherhead graduate students, faculty and staff may nominate
graduating students for the student awards. An ad hoc committee
comprised of at least one non-graduating student, one faculty member,
and one staff member is formed each year to review the nominations and
determine the recipients of the following awards.

The Rita Kicher Award is presented to a graduating part-time student
at Weatherhead. The award recipient is recognized as an outstanding
colleague in Cleveland’s professional community by his or her peers and
supervisors, is an active member of community nonprofit organizations,
contributes to one or more professional societies or organizations,
demonstrates leadership qualities and promotes Weatherhead in a
positive way.

The Scott S. Cowen Student Leadership Award is presented to a
Weatherhead graduate student who serves as a leader and role model for
all students. The recipient promotes the Weatherhead image in a positive
way, contributes to the total community and stimulates the classroom
experience. The recipient must be a member of the Graduate Business
Student Association and/or a Weatherhead School of Management Club
Leader.

The Student Life Award is presented to a Weatherhead graduate
student who actively participates in and supports Weatherhead student
activities and events; encourages and supports student participation in
student life activities; and creates, revitalizes or provides added value to
Weatherhead student organizations, activities or programs.

The Theodore M. Alfred Distinguished Service Award is presented
to a Weatherhead graduate student who participates in community
service inside and outside of Weatherhead, brings community
service opportunities to Weatherhead and promotes external service
opportunities.

Awards presented independent of nominations are:

• The Dean's Academic Achievement Award to the student or students
attaining the highest GPA in each degree program.

• Beta Gamma Sigma: Master's students graduating in the spring who
are in the top 20 percent of their graduating class (summer, fall and
spring graduates) are invited to join in the semester they complete
their program. Master's students graduating in the summer and fall
who are in the top 20 percent of their graduating class (summer, 
fall and spring graduates) are invited to join in the spring semester
following completion of their program. Doctoral students graduating
in the spring are invited to join in the semester they complete their
program. Doctoral students graduating in the summer and fall are
invited to join in the spring semester following completion of their
program.
Design & Innovation Faculty

Richard J. Boland Jr., PhD
(Case Western Reserve University)
Professor, Design & Innovation

Richard Buchanan, PhD
(University of Chicago)
Professor, Design & Innovation

Sayan Chatterjee, PhD
(University of Michigan)
Professor, Design & Innovation

Philip A. Cola, PhD
(Case Western Reserve University)
Associate Professor, Design & Innovation

Somali Ghosh, PhD
(State University of New York Binghamton)
Assistant Professor, Design & Innovation

James Gilmore
(University of Pennsylvania)
Assistant Professor, Design & Innovation

Michael Goldberg, MBA
(University of Pennsylvania)
Associate Professor, Design & Innovation

Jennifer L. Johnson, MBA
(Case Western Reserve University)
Associate Dean, Undergraduate and Integrated Programs; Associate Professor, Design & Innovation

Hyowon Kim, PhD
(The Ohio State University)
Assistant Professor, Design & Innovation

Kalle J. Lytinen, PhD
(University of Jyväskylä)
Distinguished University Professor; Iris S. Wolstein Professorship in Management Design; Chair and Professor, Design & Innovation; Faculty Director, Doctor of Business Administration Program

Satish Nambisan, PhD
(Syracuse University)
Nancy and Joseph Keithley Professorship of Technology Management; Professor, Design & Innovation

Casey E. Newmeyer, PhD
(University of Pittsburgh)
Assistant Professor, Design & Innovation

Rakesh Niraj, PhD
(Washington University in St. Louis)
Associate Professor, Design & Innovation; Co-Director, MSM-Business Analytics

Simon Peck, PhD
(University of Leeds)
Associate Professor, Design & Innovation

Banking and Finance Faculty

Joon Woo Bae, PhD
(Rotman School of Management)
Assistant Professor, Banking and Finance

Lakshmi Balasubramanyan, PhD
(Pennsylvania State University)
Assistant Professor, Banking and Finance

Scott A. Fine, MBA
(Stanford University)
Professor, Banking and Finance

Anurag Gupta, PhD
(New York University)
H. Clark Ford Professor, Banking and Finance; Faculty Director, MSM-Finance China

Gregory Harmon, MBA
(New York University)
Assistant Professor, Banking and Finance

CNV Krishnan, PhD
(University of Wisconsin-Madison)
Chair and Professor, Banking and Finance; Faculty Director, MSM-Finance China

Leonardo Madureira, PhD
(University of Pennsylvania)
Deborah and David Daberko Fellow; Associate Dean, Research and Faculty; Professor, Banking and Finance

Joonki Noh, PhD
(Emory University & University of Michigan)
Assistant Professor, Banking and Finance

Ralitsa Petkova, PhD
(University of Rochester)
Associate Professor, Banking and Finance

Peter Ritchken, PhD
(Case Western Reserve University)
Kenneth Walter Haber Professor of Finance; Professor, Banking and Finance

RL Shankar, PhD
(EDHEC Business School)
Assistant Professor, Banking and Finance

J.B. Silvers, PhD
(Stanford University)
John R. Mannix Medical Mutual of Ohio Professor of Health Care Finance; Professor, Banking and Finance

Li Wang, PhD
(University of Illinois at Urbana-Champaign)
Assistant Professor, Banking and Finance
Operations Faculty
Alireza Kabirian, PhD
(Iowa State University)
Associate Professor, Operations; Faculty Director, MSM-Operations & Supply Chain Management

Pooyan Kazemian, PhD
(University of Michigan)
Assistant Professor, Operations

Manoj K. Malhotra, PhD
(Ohio State University)
Dean and Albert J. Weatherhead, III Professor of Management; Professor, Operations

Jie Ning, PhD
(University of Michigan, Ann Arbor)
Associate Professor, Operations

Kamlesh Mathur, PhD
(Case Western Reserve University)
Chair and Professor, Operations; Faculty Co-Director, MSM-Business Analytics; Co-Director, Master of Engineering and Management

Daniel Solow, PhD
(Stanford University)
Professor, Operations

George Vairaktarakis, PhD
(University of Florida)
William E. Umstattd Professor of Industrial Economics; Professor, Operations

Qi Wu, PhD
(University of Texas, Austin)
Associate Professor, Operations

Shitao Yang, PhD
(University of North Carolina at Chapel Hill)
Visiting Associate Professor, Operations

Organizational Behavior Faculty
Diana Bilimoria, PhD
(University of Michigan)
KeyBank Professor; Chair and Professor, Organizational Behavior

Richard E. Boyatzis, PhD
(Harvard University)
Distinguished University Professor; H.R. Horvitz Professor in Family Business; Professor, Organizational Behavior

Susan S. Case, PhD
(New York University at Buffalo)
Associate Professor, Organizational Behavior

Corinne A. Coen, PhD
(University of Michigan)
Associate Professor, Organizational Behavior

Harlow Cohen, PhD
(Case Western Reserve University)
Professor, Organizational Behavior; Faculty Director, MPOD Program
David L. Cooperrider, PhD  
(Case Western Reserve University)  
*Distinguished University Professor; The Covia-David L. Cooperrider Professor in Appreciative Inquiry; Professor, Organizational Behavior; Faculty Director, Fowler Center*

Ronald Fry, PhD  
(Massachusetts Institute of Technology)  
*Professor, Organizational Behavior*

Chris Laszlo, PhD  
(University of Paris)  
*Professor, Organizational Behavior*

Tracey Messer, PhD  
(Case Western Reserve University)  
*Assistant Professor, Organizational Behavior*

Melvin L. Smith, PhD  
(University of Pittsburgh)  
*Professor, Organizational Behavior; Faculty Director, Executive Education*

John Paul Stephens, PhD  
(University of Michigan)  
*Associate Professor, Organizational Behavior*

Ellen Van Oosten, PhD  
(Case Western Reserve University)  
*Associate Professor, Organizational Behavior; Faculty Director, Executive Education*

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**Weatherhead School of Management Courses**

**ACCT Courses**

**ACCT 100. Introduction to Accounting for Non-Business Majors. 3 Units.**  
The course covers the principle of financial and managerial accounting for non-management students, including the framework that underlies financial and management accounting and how accounting information should be used by: (1) parties external to the firm, i.e., stockholders, creditors and government, to evaluate the financial performance of an organization; and (2) internal management to fulfill the planning, control and performance evaluation functions. Enrollment is limited to students who are neither management nor accounting majors nor enrolled in the Weatherhead School of Management. This course may be substituted for ACCT 102. A student may not receive credit for both ACCT 100 and ACCT 102. This course cannot be substituted for ACCT 102 without a waiver from the chairman. Offered as ACCT 100 and ACCT 400.

**ACCT 101. Introduction to Financial Accounting. 3 Units.**  
Financial reports are the most significant means for an organization to communicate its management results to stockholders, creditors, and regulators. This course covers concepts, principles, and practices, including preparation and interpretation, of financial reports. The financial reporting system and basic internal controls for the balance sheet, income statement, and cash flow statements are discussed.

**ACCT 102. Management Accounting. 3 Units.**  
This course focuses on management accounting as a supporting system, helping managers to run businesses and other organizations. The course builds on knowledge of microeconomics, organizational design and behavior, production, and logistics as a foundation to explore how management accounting provides information for management planning, control and decision activities. A student may not receive credit for both ACCT 100 and ACCT 102.

**ACCT 207. Excel and Accounting Analytics Technology. 3 Units.**  
Through this course, the student will gain an understanding of leveraging current technologies in the Accounting process of Extraction, Analysis and Visualization. ACCT 207 combines classroom, lab and project work to complete assignments leveraging technologies such as SQL, Microsoft Excel and Tableau. Prereq: ACCT 100 or ACCT 101.

**ACCT 300. Corporate Reporting I. 3 Units.**  
ACCT 300 is the first course in the Corporate Reporting sequence. This course examines the basic financial statements (balance sheet, income statement, statement of cash flows), the asset side of the balance sheet (from cash to inventory), accrual versus cash accounting, revenue recognition, time value of money, and profitability analysis. Also, this course will highlight some of the differences between GAAP and IFRS relative to the topics covered. Prereq: ACCT 100 or ACCT 101. Coreq: ACCT 207.

**ACCT 301. Corporate Reporting II. 3 Units.**  
This course is the second of a 3 course sequence and covers accounting theory generally accepted accounting principles and reporting practices. Areas of focus include: property plant and equipment, liability determination, long-term debt, derivatives, leases, pensions and other postretirement benefits, and investments. International (IFRS) aspects also are considered. Prereq: ACCT 300.

**ACCT 302. Selected Topics in Financial Accounting. 3 Units.**  
ACCT 302 continues a focus on Financial Accounting. This course covers many of the more complex areas of accounting. These areas include issues of shareholders equity, share based compensation, pensions, Statement of Cash Flows - advanced topics, governmental accounting and not for profit accounting and notes prepared using U.S. GAAP accrual accounting. An understanding of these topics is helpful for the CPA exam for professional practice. Prereq: ACCT 300.

**ACCT 305. Income Tax: Concepts, Skills, Planning. 3 Units.**  
This course addresses U.S. Federal Income Taxation concepts and applications. The subject matter includes topics applicable to individuals, partnerships and corporations and various other entities required to file income tax returns. In addition the subject matter addressed includes a variety of business, legal and taxation concepts and practices related to effective tax planning. The purpose of the course is to provide the student with the appropriate knowledge and skill levels to "speak the language of U.S. tax." Prereq: Sophomore Standing.

**ACCT 306. Accounting Information Systems - Basic. 3 Units.**  
This course introduces the students to the major business cycles as they relate to Accounting Information Systems, including the revenue, procurement and conversion cycles. Additionally, students will be introduced to ERP systems and obtain hands-on experience using SAP’s Enterprise Resource Planning System. Prereq: ACCT 100 or ACCT 102.
ACCT 307. Applied Analytics for Accounting. 3 Units.
This is the second course in the Department of Accountancy's analytics sequence. The course is designed to advance students’ ability to obtain information from data sets using the extract-manipulate-display framework introduced in ACCT 207. We use the tools of average, variance, correlation, sampling, and causal reasoning to reduce uncertainty. Upon course completion, students will be able to ask good questions when faced with unfamiliar accounting data. We prioritize development of critical thinking skills over the ability to use software to perform statistical calculations. Prereq: ACCT 207.

ACCT 314. Attestation and Assurance Services. 3 Units.
This course covers the role of the auditor, the audit process, the public accounting profession, audit risk and materiality, fraud, audit methods and techniques, audit planning, internal control, the effects of information technology on the audit, auditing revenue, receivables and inventories, professional ethics, legal responsibilities, emerging assurance services, and recent developments in the auditing profession. Prereq: ACCT 301.

ACCT 360. Independent Study. 1 - 18 Units.

ACCT 400. Introduction to Accounting for Non-Business Majors. 3 Units.
The course covers the principle of financial and managerial accounting for non-management students, including the framework that underlies financial and management accounting and how accounting information should be used by: (1) parties external to the firm, i.e., stockholders, creditors and government, to evaluate the financial performance of an organization; and (2) internal management to fulfill the planning, control and performance evaluation functions. Enrollment is limited to students who are neither management nor accounting majors nor enrolled in the Weatherhead School of Management. This course may be substituted for ACCT 102. A student may not receive credit for both ACCT 100 and ACCT 102. This course cannot be substituted for ACCT 102 without a waiver from the chairman. Offered as ACCT 100 and ACCT 400.

ACCT 401H. Accounting for Healthcare. 3 Units.
This course exposes MSM-Healthcare students to ways that accounting information helps managers monitor and improve the performance of organizations. After studying the nature and limitations of accounting information, we explore how financial, cost, tax, and regulatory accounting are used by various stakeholders. From this effort, students become comfortable evaluating accounting recognition, valuation, classification, and disclosure issues that arise in an executive’s career. Finally, we study how accounting is a feedback loop that enables managers to assess consequences of past decisions and think about what should be done going forward. Feedback loops, in turn, can give rise to observer effects and/or unpredictable outcomes. Course content contributes to achieving the program goal of strengthening a student’s ability to promote positive change in healthcare. Prereq: MSM Healthcare students only.

ACCT 404. Advanced Financial Reporting. 3 Units.
ACCT 404 covers advanced financial reporting topics including financial statement consolidations, foreign currency translations and transactions, VIE’s, (variable interest entities), partnership accounting, derivatives, segment reporting, and interim financial statement reporting. As a graduate course, a master’s level project or paper will be required. Prereq: ACCT 301.

ACCT 405. Advanced Federal Taxes. 3 Units.
Corporate income taxes, estate and gift tax, fiduciary income taxes, partnerships, and hybrid forms of organization are covered. Prereq: ACCT 305.

ACCT 406. Advanced Accounting Information Systems. 3 Units.
This is a three hour class in which the students will combine classroom and project work to learn how technology is used in the reporting and evaluation of internal and external Accounting Information. Students will learn to recognize and manage technology-based risks to Accounting Information and will study current events and relevant trends in accounting technology. Prereq: ACCT 314.

ACCT 407. Analytics and Control. 3 Units.
This is the final course in the Department of Accountancy’s analytics sequence. The course is designed to further students’ skills in making informed decisions when faced with unfamiliar data sets. We hone the ability to use the tools of average, variance, correlation, sampling, and hypothesis to reduce uncertainty. Upon course completion, students will be able to analyze data that help organizations accomplish desired goals. We prioritize development of critical thinking skills over the ability to use software to perform statistical calculations. We seek to be approximately right rather than precisely wrong. Prereq: (ACCT 102 and OPRE 207) or (MBAC 503 and MBAC 511) or MBAP 403.

ACCT 414. Corporate Reporting and Analysis. 3 Units.
This course provides a basis for evaluation of traditional and proposed uses of reports and information for decision making regarding investment, credit and internal planning and control. Students are introduced to concepts, and analytical techniques that can be used to critique and interpret the financial health and value of an organization. At a practical and theoretical level, the course integrates research in the areas of accounting, quantitative methods and finance which has proved useful in the financial analysis of organizations Prereq: ACCT 300 or ACCT 401H or MBAC 502 or MBAP 402 or Requisites Not Met permission.

ACCT 431. Tax Practice: Analysis, Planning and Communications. 3 Units.
This course concentrates on teaching the identification of key U.S. tax issues, the analysis of fundamental tax concepts and the underlying interpretation and application of tax law through the use of appropriate authoritative sources. Both oral and written communication will be utilized to present tax planning research results. Actual court cases will be used as the basis for simulating practical client scenarios. Prereq: ACCT 305.

ACCT 444. Advanced Auditing Theory and Practice. 3 Units.
This course examines auditing concepts and issues in depth. A special focus exists on audit evidence and how auditors make decisions. Some topic areas include ethics, analytical review, fraud, and the role of technology. Prereq: ACCT 314 or Requisites Not Met permission.

ACCT 501. Special Problems and Topics. 0 - 18 Units.
This course is offered, with permission, to students undertaking reading in a field of special interest.

ACCT 520. Advanced Accounting Theory. 3 Units.
This seminar studies contemporary issues in financial accounting theory and business reporting. Topics are considered from their historical development to contemporary circumstances. Academic and professional literatures are employed to gain a variety of perspectives on current matters. The development of communication skills, written and verbal, and use of support technology for presentations is emphasized throughout. Students are required to make several individual and team presentations, to conduct database and periodical research and to provide frequent written and oral research reports. Prereq: MAcc students only and ACCT 301. Prereq or Coreq: ACCT 404.
ACCT 540. Corporate Governance and Contemporary Accounting Policy. 3 Units.
The Sarbanes-Oxley Act (SOX), passed in the wake of a series of corporate accounting scandals including Enron and WorldCom, was designed to strengthen Corporate Governance processes for all US publicly traded companies with an aim of “protecting investors by improving the accuracy and reliability of corporate disclosures.” The contemporary implications of SOX for the accounting profession are immense. Students must understand these implications to successfully navigate the world of public company financial reporting. One implication is the role SOX gave to corporate board audit committees to oversee the independent auditors charged with auditing public company financial statements. This requires a fundamental understanding of corporate boards including why they exist and what are their more general responsibilities. Another implication is the establishment of the Public Company Accounting Oversight Board (PCAOB) to regulate the accounting profession. Thus, this seminar examines broad issues surrounding Corporate Governance including governance of public companies including investment companies, with strong contemporary connections to the accounting profession, including professional ethics, independence and quality control. Prereq: MAcc students only, ACCT 301, and ACCT 314. Prereq or Coreq: ACCT 404.

ACCT 601. Special Problems and Topics. 1 - 18 Units.
This course is offered, with permission, to Ph.D. candidates undertaking reading in a field of special interest.

ACCT 701. Dissertation Ph.D.. 1 - 9 Units.
(Credit as arranged.) Prereq: Predoctoral research consent or advanced to Ph.D. candidacy milestone.

BAFI Courses

BAFI 206. Personal Financial Management with Digital Technology. 1 Unit.
In the digital era, financial technologies have worked its way into our digital wallets and portfolio. Mobile banking services, budgeting and investing apps are inextricably linked with how we conduct our personal finances. While financial literacy deals with underlying finance concepts such as time value of money, compounding, budgeting and investing, financial technologies dictate how we access tools to carry out day-to-day budgeting, investing and consuming. In the digital era, financial technologies, Fintech, serves as an enabler of financial literacy, FinLit. While technology is not a substitute for literacy, Fintech complements literacy. Technology has created a level playing field and has advanced the access to credit and investments. This course will cover four areas: 1. Comparing banking services and costs 2. Digital banking: Using mobile apps and financial technologies for financial management and decision making 3. Personal finance and digital money 4. Risks in the digital era: Identity protection Offered as BAFI 206 and MGMT 206.

BAFI 210. Seminar: Financial Services Industry. 0 - 1 Units.
The goal of this course is to prepare students for an alumni-sponsored trip to NYC focused on careers in financial services. Learning goals include: (i) providing career identification, research and preparation skills, with a particular emphasis on financial services, (ii) exposing students to job opportunities in financial services, (iii) allowing students to acquire fundamental business and financial skills, (iv) enabling students to apply skills to actual businesses and real-world cases and projects, (v) building a personal portfolio of experiences to share with prospective employers for each student and (vi) enhancing students’ abilities to communicate in a business setting by developing proficiency in PowerPoint and oral presentation skills.

BAFI 335. Introduction to Fintech. 3 Units.
Fintech refers to financial sector innovations involving technology-enabled business models that can facilitate disintermediation. These innovations are revolutionizing how existing firms create and deliver products and services, addresses privacy, regulatory and law-enforcement challenges, provides new gateways for entrepreneurship, and seed opportunities for inclusive growth. Fintech is also the label for increasingly technological approaches to the main financial intermediation functions: payments, capital raising, remittances, managing uncertainty and risk, market price discovery, and mediating information asymmetry and incentives. In today’s Fintech businesses, consumers can access mobile apps integrated into social media, institutions can trade electronically, and robo-advisers make decisions about investment portfolios. This course provides an introduction to the emerging Fintech discipline. The course will cover Fintech innovations, who and how traditional players are being affected and how they must respond, and what business models for new and traditional financial services firms are likely to succeed. Prereq: Sophomore Standing.

BAFI 341. Money and Banking. 3 Units.
This course emphasizes the importance of financial markets, the nature and role of the financial system, and the linkages between these--money and banking--and the economy. Emphasis is placed on both theoretical and practical constructs, on major innovations and contemporary changes, and the closely intertwined condition of financial and economic systems with monetary and fiscal policy. Offered as BAFI 341 and ECON 341. Prereq: ECON 102 and ECON 103.

BAFI 355. Corporate Finance. 3 Units.
The basic goals of this course are to familiarize students with the concepts and tools used in financial management at both the corporate and personal levels. They include the notion of present value, securities valuation, risk and return analysis, and other financial analysis techniques. The concepts and techniques are, in turn, used to evaluate and make decisions regarding the firm’s investments (capital budgeting) and the cost of capital. Prereq: At least Sophomore standing and ACCT 100 or ACCT 101.

BAFI 356. Investments. 3 Units.
This course is about investing in securities. It provides a comprehensive introduction to security analysis and portfolio management. Investing is a rational decision-making process in which the investor seeks to select a package or portfolio of securities that meets a predetermined set of objectives. Descriptive, institutional and quantitative decision-making methods are arranged in a cohesive framework of analysis of interest to the informed investor. Topics include modern portfolio theory, the relation between risk and return, efficient markets, bonds, and options, among others. Prereq: BAFI 355.
BAFI 357. Financial Modeling, Analysis and Decision Making. 3 Units.
Firms try to create value. In their day-to-day operations, they are faced with numerous challenges: Should we accept trade credit or borrow? Will an acquisition create or destroy value? Should we introduce a new product line even if it cannibalizes an existing one? In each of these situations they try to quantify the impact on the value of their firm. The goal of this course is to develop your skills in financial modeling and valuation, so you can tackle issues like the ones described above. The course is designed to be "hands-on": You will learn to apply the theory and develop spreadsheet modeling skills through homework, case studies and a group project. By the end of the course you will have a good understanding of both the theory and practice of valuation, and possess a set of cutting-edge financial modeling skills. This course is designed for students who aspire to work in a regular company, a bank or a consulting firm in (i) corporate finance (including mergers and acquisitions); (ii) strategy; or (iii) equity and analysis. Prereq: BAFI 355.

BAFI 358. Intermediate Corporate Finance. 3 Units.
This is a rigorous second course in corporate finance (following BAFI 355) designed to lay the analytic foundation for careers in business. The objective is to strengthen students' theoretical and conceptual understanding of several important topics in finance, and to develop their problem-solving skills. Topics covered include economic cash flows and valuation, Long term financial planning and ratios analysis, Growth and external financing, Short term financial planning and Working capital management, Managerial options and valuation, Derivatives, Agency cost and asymmetric information, Capital structure and payout policy. Prereq: BAFI 355

BAFI 359. Cases in Finance. 3 Units.
This course applies the case study method applied to a variety of business situations that teaches students to think on their feet, develop presentation skills and hone business judgment. The objective of the course is to strengthen students' conceptual understanding and problem-solving skills. It is intended to complement the two course sequence in corporate finance (BAFI 355 and BAFI 358) by applying these concepts to real world problems. Topics covered include cash flow estimation and corporate valuation, financial planning and ratio analysis, financing using internal and external sources, capital budgeting and managerial options, capital structure, payout policy, financial strategy, public equity analysis (including initial public offerings), mergers and acquisitions and leveraged buyouts. The course envisages an extensive use of case studies and simulation exercises. Prereq: BAFI 355.

BAFI 360. Independent Study. 1 - 18 Units.
This course is offered for candidates undertaking reading in a field of special interest. Permission of department chair required.

BAFI 361. Empirical Analysis in Finance. 3 Units.
This course is developed based on the feedback received from employers who have hired BS Management (finance) graduates in the past and will likely do so in future. The goal is to enable students to use financial econometrics to effectively analyze financial data. The course will draw on theoretical aspects of BAFI 355 but focus on developing financial analytic skills. The applied nature of the course comes from the use of real, rather than theoretical, data. In other words, in a real-world fashion, through the use of statistical methods to analyze real data, the student can address practical questions of high relevance to the Finance industry. The scope of the data as well as the quantitative methods used in such analysis often requires familiarity with computational environments and statistical packages. As such, another goal of the course is to familiarize the student with at least one such environment. Prereq: BAFI 355 and OPRE 207.

BAFI 362. Advanced Financial Analytics. 3 Units.
The objectives of this course include understanding important quantitative risk models, risk measurement tools and explaining implications for risk management and investment decisions. Data will be used from Bloomberg and other intra-day data sources to estimate models and evaluate results in many areas of finance. At the end of the course students will: (i) understand and apply analytical models to real financial market problems, (ii) be exposed to debt, credit, and derivatives markets and associated career opportunities in applied analytics and (iii) be exposed to bank risk management skills and applications. This course is designed to be focused and intense, while also being very aligned with the best practices in the financial industry today. Microsoft Excel, because of its flexibility, will be the primary source of practical experience, though the course may also incorporate other computer tools /languages. Prereq: OPRE 207 and BAFI 355.

BAFI 365. Options and Other Derivatives. 3 Units.
This course is designed to introduce students to the theoretical and practical aspects of financial futures, options, and other derivatives. The markets for these instruments have grown enormously and have generated a profusion of innovative products and ideas, not to mention periodic crises. Derivatives have become one of the most important tools of modern finance. The goal is for students to understand the principles of how these important instruments and markets work. Prereq: BAFI 355.

BAFI 372. International Finance. 3 Units.
This course deals with open-economy macroeconomics and international financial markets, covering open-economy national income analysis, international macroeconomic policy coordination, exchange rate determination, foreign portfolio investment, and global financial crises. Offered as BAFI 372 and ECON 372. Prereq: ECON 103.

BAFI 403. Corporate Financial Technology. 3 Units.
This course is focused on the many aspects of the development in Financial Technology from recent notable successes to the current edge and thoughts about the future. Topics covered will include "FinTech" Applications, Incubators and Angels, Block Chains, Crypto-currencies, Crowdfunding, and Payment Schemes. Topics can change from semester to semester, in tune with changing technology. Offered as MSFI 403 and BAFI 403.

BAFI 404. Financial Modeling. 3 Units.
This is a course about financial modeling. It covers a range of topics in the field of financial economics. Each topic is chosen because it lends itself to financial modeling. The primary focus of the course is to relate the theory of finance to practical and usable spreadsheet models that will assist a financial manager with a firm’s investment and financing decisions. Spreadsheet models have been the dominant vehicle for finance professionals to practice their trade. This course will utilize Excel and challenge the student to improve their finance and modeling skills. Students will improve their familiarity with financial data analysis through various exercises that incorporate completed models. In summary, the course is designed to increase your practical understanding of core concepts in finance, help you develop hands-on spreadsheet modeling skills, and strengthen your ability to perform financial data analysis within an Excel model. Prereq: MBAC 504 or MBAP 405.

BAFI 420. Health Finance. 3 Units.
Exploration of economic, medical, financial and payment factors in the U.S. healthcare system sets the framework for the study of decisions by providers, insurers, and purchasers in this course. The mix of students from various programs and professions allows wide discussion from multiple viewpoints. Offered as BAFI 420 and HSMC 420. Prereq: MBAC 502 or MBAP 402 or ACCT 401H and enrollment in a program other than MSM in Healthcare.
BAFI 428. Financial Strategy and Value Creation. 3 Units.
The intersection between the theory of perfect markets and the reality of market imperfections provides the basis for the exploration of value creation in this course. Opportunities in both product and financial markets are explored using case studies to develop a framework for strategic financial decisions.

BAFI 429. Investment Management. 3 Units.
This course explores the characteristics of financial investments and markets and develops modern techniques of investment analysis and management. The goal is to help students develop a level of analytical skill and institutional knowledge sufficient to make sensible investment decisions. Topics include: an overview of stock, debt and derivative asset markets, practical applications of modern portfolio theory, equilibrium and arbitrage-based approaches to capital market pricing, the debate over market efficiency, the term structure of interest rates, bond portfolio management, and uses of derivative assets in investment portfolios. Prereq or Coreq: MBAC 504 or MBAP 405.

BAFI 430. Derivatives and Risk Management. 3 Units.
This course is intended to give students an understanding of options and futures markets both in theory and practice. The emphasis is on arbitrage and hedging. The course concentrates on listed common stock and index contracts as well as commodity markets. Various theories for trading strategies are studied. Prereq or Coreq: MBAC 504 or MBAP 405.

BAFI 431. Fixed Income Markets and Their Derivatives. 3 Units.
This class is concerned with fixed income securities, interest rate risk management, and credit risk. Fixed income securities account for about two thirds of the market value of all outstanding securities, and hence this topic is important. The course covers the basic products of fixed income markets including treasury and LIBOR products, such as interest rate swaps. Risk management and hedging strategies are covered as well as selected topics in credit risk models and mortgage-backed securities. Prereq: BAFI 430.

BAFI 432. Corporate Risk Management. 3 Units.
This is a unique strategic risk management course aimed at participants who wish to enhance their understanding of the risks faced by corporate firms, both financial and non-financial, learn techniques to identify and measure these risks, and understand how derivatives and risk management solutions can be used to manage these risks, create value, and advance the strategic goals of the firm. The course is designed in a manner such that it would be of use to executives of all corporations, financial and nonfinancial, across all functional areas. Prereq: BAFI 405 or MBAC 504 or MBAP 505.

BAFI 433. Quantitative Risk Modeling. 3 Units.
This course is designed to help students learn quantitative models for estimating risk in various financial settings for different types of financial institutions (banks, hedge funds, and others). It is a very hands-on course where students will become familiar with several state-of-the-art quantitative risk models as well as their detailed implementation procedure in the real world. The course uses several in-class Excel exercises to illustrate the models as well as their practical implementation using real financial data. Offered as BAFI 433 and MSFI 433. Prereq or Coreq: MBAC 504 or MBAP 405.

BAFI 434. Financial Analytics and Banking. 3 Units.
This course will cover empirical and analytical aspects of banking, including loan origination, syndication, sales, stress-testing and securitization; capital adequacy, regulation and supervision; methods of measuring and managing value at risk, credit risk, interest rate risk, liquidity risk, and other risk; credit market information, feedback, and signaling. Offered as BAFI 434 and MSFI 434. Prereq or Coreq: MBAC 504 or MBAP 405.

BAFI 435. Empirical Finance. 3 Units.
This course provides an introduction to empirical analysis and research in finance. This involves the management of empirical datasets and the aspects of quantitative applications of finance theory. The goal is to enable the student to deal with the need to analyze complex and large financial and economic datasets that is present in many fields of the financial profession. The scope of the data as well as the quantitative methods used in such analysis often requires familiarity with robust computational environments and statistical packages. As such, another goal of the course is to familiarize the student with at least one such environment. Applications are conducted using real financial and economic data. The course draws on the theoretical aspects of the subjects covered, but mainly focuses on the practical matters required to undertake an empirical analysis of financial topics—e.g., the definition of the research question, the datasets required, the computational needs, and, then, the implementation. The course enables the student to evaluate outstanding financial research as well as to conduct his or her own research. Offered as BAFI 435 and MSFI 435. Prereq or Coreq: MBAC 504 or MBAP 405.

BAFI 444. Entrepreneurial Finance. 3 Units.
The objective of this course is to introduce students to the issues of financial management and capital formation in new ventures. The course will address issues of estimation of cash requirements, development of pro forma financial plans, firm valuation and the process and tools used in raising debt and equity financing. Bootstrapping, angel investing, venture capital, strategic alliances and initial public offerings will be covered. The emphasis is on the entrepreneur and how he/she can assess financial needs and develop a sensible plan for acquiring financial resources in a manner that is consistent with their financial needs and other strategic goals. Offered as BAFI 444 and MSFI 444. Prereq or Coreq: BAFI 420, MBAC 504, MBAP 405, MSFI 401 or MEM students.

BAFI 450. Mergers and Acquisitions. 3 Units.
This course examines the economic rationale and motivation for the different merger and acquisition and recapitalization activities undertaken by firms and individuals in the U.S. market. Emphasis is on the comparable publicly traded proxy company, comparable "change of control" transaction, and discounted cash flow methods of valuing a firm. The class will also review the different types of debt and equity capital employed to fund mergers and acquisitions and recapitalizations, how senior lenders and equity investors structure their loans and/or investments, and how investors realize the gains through different exit strategies. The legal and tax ramifications of various forms of M&A activity are also discussed. The course gives the student an excellent understanding of the role that senior commercial banks, insurance companies, pension funds, LBO funds, investment banking firms, and venture/growth capital investors play in mergers and acquisitions and will strengthen the students’ ability to value a business enterprise. Prereq: MBAC 504 or MBAP 405.
BAFI 460. Investment Strategies. 3 Units.
This course provides a broad survey of some of the main strategies used by hedge funds today. Through exercises and projects, the hedge fund strategies will be presented using real data. Students will learn to use a methodology referred to as “back testing” in order to evaluate hedge fund strategies. The course will also cover institutional details related to short selling, liquidity, margin requirements, risk management, and performance measurement. Since hedge funds today use advanced modeling techniques, the course will require students to analyze and manipulate real data using mathematical modeling. The objective of the course is for students to gain practical knowledge about creating, back-testing, and implementing hedge fund trading strategies. Offered as BAFI 460 and MSFI 460. Prereq: MBAC 504 and MBAC 505.

BAFI 480. Global Banking & Capital Markets. 3 Units.
This course will expose students to Banking and Capital Market Structure, Practices, and Regulations in North America, Europe, as well as Asia. Students will learn about structure of the financial services industry in different parts of the world, the history and evolution of the regulatory frameworks in this industry, and its consequent impact on financial and economic development as well as risk. Several case studies are used to expose students to different issues and questions that arise in the day-to-day jobs of financial managers in this industry. Offered as BAFI 480 and MSFI 480. Prereq: MBAC 504 or MBAP 405.

BAFI 490. Cases in Applied Corporate and Real Estate Valuation. 3 Units.
This course is focused on engaging groups of students in identifying, analyzing and making decisions on real-world corporate financial problems. Teams of students will be assigned to a specific client situation drawn from one of four general areas: (i) mergers and acquisitions (including corporations and/or leveraged buyout firms), (ii) public equities (IPOs and/or equity research), (iii) corporate financial policies and transactions or (iv) real estate. Learning will include lectures, structured problem solving using live case studies and an in-depth project in which will evaluate an actual current business opportunity and present it to a panel of industry veterans. In addition to learning deeper financial skills, the course will enhance unstructured problem solving, project management, team building and high level communications skills. Offered as BAFI 490 and MSFI 490. Prereq: MBAC 504 or MBAP 405.

BAFI 491. Python Programming w Appl in Finance. 3 Units.
There are two parts to this course. (i) In the first part we learn the basics of Python programming language by solving a sequence of rather simple problems each focusing on broadening your knowledge. At each stage we introduce important commands of Python and slowly learn the structure of object oriented programming with Python. The objective is to make you Python literate. (ii) The second part of the class is for you to tackle significant financial problems either in risk management or in corporate finance using the Python language as the primary tool to do the analysis. You will develop a series of financial models in your track and then tackle two major projects which will utilize all the skills developed. Offered as BAFI 491 and MSFI 491. Coreq: BAFI 430.

BAFI 501. Special Problems and Topics. .75 - 18 Units.
This course is offered, with permission, to students undertaking reading in a field of special interest.

BLAW Courses
BLAW 331. Legal Environment of Management. 3 Units.
This course is designed as a survey course in the area of basic business law. It covers the fundamental legal principles and laws that underlie any business decision. The major topics include: contracts, the Uniform Commercial Code (sales), torts, real and intellectual property, business organizations, Securities Regulation and Agency.
BTEC 493. Blockchains and AI: Applications in Finance and Business. 3 Units.
It behooves today’s business leaders to be well acquainted with blockchain technologies and AI (Artificial Intelligence), two seemingly disparate technologies that have the potential to fundamentally disrupt a wide range of businesses. The popularity of blockchain technologies has increased exponentially since the release of bitcoin in 2009. While bitcoins garnered a lot of attention during the initial days, the focus has shifted over time to the underlying technology: blockchain. This wildly innovative technology has made possible tasks that were hitherto deemed implausible: validate ownership in a digital asset, verify the true state of a transaction without relying on a costly intermediary etc. The list of businesses that are impacted by this technology makes for an impressive reading: supply chain, health care, insurance, foreign exchange transfers, real estate, etc. If the emphasis of blockchain technology is on trust, that of Artificial Intelligence is on predictions. Accurate predictions and sound judgements are two critical ingredients of any decision making process. While the jury is still out on whether algorithms can make sound judgements, recent developments in a field called machine learning (and its sub-field, deep learning) have led to dramatic improvements in the accuracy of predictions made by these algorithms. Significantly, this gain in accuracy has been accompanied by a reduction in overall costs. These in turn have spurred the recent interest in AI. Organizations that have enabled AI at the enterprise level appear to be making more informed decisions and innovating new products. In this course, we will unpack these technologies and examine a wide range of relevant business use cases. Our objective is to provide a practical introduction to these key technologies and their business implications. We focus on business perspectives, rather than on the technical dimensions. Fittingly, this course is open to all graduate students of Weatherhead School (MBA and all specialty Masters). Students are not expected to have any specific programming background; however, a basic understanding of statistics is required to better appreciate the discourse on Artificial Intelligence. Offered as BTEC 493 and MSFI 493. Prereq or Coreq: MBAC 504 or MBAP 405.

BTEC 494. Artificial Intelligence for Financial Modeling. 3 Units.
Artificial Intelligence for Financial Modeling is a graduate-level finance course aimed at participants who wish to learn more about applying Artificial Intelligence to problems in finance. This is a hands-on course on A.I. where the emphasis is not only on understanding the theoretical underpinnings of various AI models but also on building, evaluating, and critiquing A.I. models as they apply to the finance industry. This course begins with an introduction of Machine Learning models; various key ideas such as bias-variance tradeoff, cross-validation, regularization techniques are introduced with relevant examples from Finance. The course then proceeds to discuss Artificial Neural Networks and its relevance to Deep Learning. Foundational ideas such as back-propagation are discussed in sufficient detail; we also lay a lot of emphasis on evaluating the performance of all these models. A key objective of this course is help students build cutting-edge A.I. models that are ready for prime time, i.e., real-life applications. Fittingly, we work with several real-life datasets and case studies from banking and finance. We will work with three case studies, each of which span multiple sessions. -In the first case study, students use Machine Learning algorithms to understand how imbalanced datasets are handled in real-life. -In the second study, students use time series data and learn not only about the power of regularization techniques but also to highlight the prominence of A.I. in financial markets. -In the third case study, students learn how to use cutting-edge Deep Learning models to extract sentiments from disparate news sources; these are in turn used to generate trading strategies. By contrasting the effort that goes into and the payoff obtained from Machine Learning and Deep Learning models, students gain an intuitive appreciation of both these classes of models. Offered as BTEC 494 or MSFI 494. Prereq: BTEC 493.

DESN Courses
DESN 210. Introduction to Programming for Business Applications. 3 Units.
Goals: This course will introduce students to the basics of programming logic utilizing the Python programming language and environment. The course will help students understand how to apply programming solutions and related algorithmic thinking to solve common business and decision problems. This class is a great introduction into programming logic, it just happens to use Python. This course will teach the fundamentals of programming logic, which could be applied to any programming language available today or into the future. Learning Objectives: Upon completion of this course students should have a foundational knowledge of how to use variables, operators, manipulate strings, loops, functions, and basic array manipulation all through Python programming language. The course will culminate with a final project where students will be divided into groups with each group solving a different small business problem. The final submission will require a joint white paper submission that demonstrates the following learned objectives: problem research, scope, architect, and design a potential solution using python environment. A sample of the implemented Python code that was used to solve this problem will be required for final submission. Course Requirements: Each student must have access to a computer that can be brought to class. No programming experience is required. Downloading and installing Python is covered at the start of the course. Basic computer skills: surfing websites, running programs, saving and opening documents, etc. Offered as BTEC 420 and DESN 210.
DESN 302. Creativity in Design & Business: Sources of Perception, Imagination, & Creative Thinking. 3 Units.
The goal of this course is to develop skills and techniques for creative problem solving. The course is for anyone interested in design, the development of new products and services, and strategies for change in organizations and society. It is useful wherever we face challenging situations that require imagination, new ideas, and innovative approaches in a rapidly changing world. At its core, creativity is an issue of perception. Learning to change one's perception from what is known, comfortable, and familiar to what is unknown and potentially valuable and rewarding is the challenge of this course. We will explore a wide variety of methods, techniques, and tools for encouraging new perceptions. There will be useful readings, but also exercises and projects for individuals and teams to develop new strategies of creative thinking. Offered as DESN 302 and ENTP 302.

DESN 308. Business Model Design and Innovation. 3 Units.
This course takes the perspective of entrepreneurs or business unit managers. The three basic questions that all entrepreneurs and entrepreneurs must answer is where to play, how to win and what to do. You have identified a group of customers for your product or service (where to play). Your first challenge is to know what features (Customer Attributes) your target customer will pay for. Innovative business models focus on a set of customer attributes that are usually very different from other industry incumbents that we call Focal Attributes. Your second challenge is to clearly state your profit logic — how you will make money — how to win. The concept called Profit Objectives (similar but not the same as KPI and/or SMART objectives) allow you to operationalize the profit logic through specific and measurable deliverables. Your third challenge is building the value chain that can deliver these focal attributes (what to do). At this point, you have a good understanding of all the elements of your business model and in particular, how the focal attributes and the value chain align with the profit objectives. You will learn how to illustrate this alignment through a mapping process. Offered as DESN 308 and ENTP 308. Prereq: Junior standing or higher.

DESN 410. Leading Digital Innovation by Design. 3 Units.
A new wave of digital revolution is transforming every industrial sector. Powered by increasingly smaller yet potent microprocessors and sensors, a new generation of analytical tools, and ubiquitous wearable and mobile devices, companies can radically transform the way they interact with users and the way they create and capture value. Technology like Block Chain and AI are likely to fundamentally reshape how we think about firms and industries. Such changes make existing strategic frameworks and tools obsolete. In order to understand how and why digital technology changes the industrial landscape, companies must understand some of the fundamental characteristics of digital technology and how it demands new types of value creation logic. Be it a large corporation or a small start-up; or a government agency or a multinational enterprise; everyone is struggling to deal with the new digital reality. Yet, exactly how to use digital technology to create value is not clear. While all companies must understand how digital technology is fundamentally different from other forms of technology, ironically digital innovation is not about technology. Digital innovation is making digital technology meaningful and valuable to users. Therefore, digital innovation requires us to truly understand us (people), what we do, why we do what we do, what makes us happy, and what we consider meaningful. Therefore, digital innovation is a deeply humanistic exploration to make digital technology meaningful and valuable to us. In order to fully harness the transformative capacity of digital technology, we must gain deeper insights on people and their actions, meanings and values. In this experiential course, we use design as the primary tool to gain such humanistic insights, and work with real-world projects to apply those ideas and tools to build real digital innovations.

DESN 419. Entrepreneurship and Personal Wealth Creation. 3 Units.
Course explores the accumulation of personal wealth utilizing entrepreneurial strategies. The underlying competencies of successful entrepreneurs are identified and applied to individual lives of students. Active entrepreneurs will be studied, and original case studies of start-ups and acquisitions provide the basis for class exercises. Offered as DESN 419 and IIME 419.

DESN 425. Chief Executive Officer. 3 Units.
This course is designed for students who aspire to become a chief executive officer. The unique role, responsibilities, and requirements of the CEO will be explored. Students will benchmark CEO best practices through exposure to leading chief officers, study the paths to and preparation for the top job, and develop a personal career strategy to increase their chances of becoming a CEO. Offered as DESN 425 and IIME 424.

DESN 440. Design of Disruptive Business Models. 3 Units.
This course will explore the design of business models that disrupt traditional or established business patterns. With the shift toward services and human interactions as the foundation of many new companies, this course will focus on methods of inventing and developing business models that use digital technology, information, and service concepts to meet new needs in areas of retail, medical care, and other areas of business opportunity.
DESN 490. Business Model Innovation and Diversification. 3 Units.
This course is an advanced strategy course that explores the determinants of successful corporate strategy. In Strategy Issues and Applications you were exposed to the basic frameworks for developing successful competitive or business unit level strategy. Corporate strategy takes you to the next level and provides the frameworks you need to be able to be successful in multiple businesses. At its core corporate strategy constitutes any and all decisions that change the core business model of a firm. Examples are vertical integration, new but related product lines, entering new markets with existing products and entering new or existing markets with unrelated products. The fundamental premise of the course is that successful corporate strategy is rooted in competitive advantage arising from capabilities residing at the business unit level. Starting from analyzing business level strategies of very simple firms, the course successively builds frameworks towards more complicated business level strategies. Next, the course develops frameworks to discuss corporate strategy based around the concept of core competencies and market entry strategies. Finally, the course develops the concepts that are useful in greenfield entries, alliances and acquisitions as part of an overall corporate strategy.

DESN 494. Managerial Consultancy. 3 Units.
Students will learn to match consulting methodologies with client needs and employ a step by step strategy development process applied to actual companies which are semester-long clients of the class. Accelerated career strategies in the consultancy business are featured as well as tactics for getting hired in the first place. The course views consultancy as a role rather than career and conceptualizes consultancy as a process of optimizing an organization’s value creation potential and competitive advantage. Students should be able to apply the concepts regardless of career choice. Exposure to senior practicing consultants is featured.

DESN 496. Strategic Planning and Control Systems for Strategy Implementation. 3 Units.
This course introduces the principal tools of strategy implementation, namely the design of organization structures, the use of formal planning and control systems, and the design of measurement and reward systems. The importance of organizational context (small vs. large, for profit vs. not-for-profit, manufacturing vs. service, etc.) and the need to tailor systems to the context of the organization are emphasized. New and emergent organizational forms and their role in strategy development and implementation are reviewed. Cases and readings are the principal pedagogical methods utilized. Students work in small project teams, study the operation and effectiveness of systems for strategic control in organizations, and present the results of their analysis in class presentations.

DESN 501. Special Problems and Topics. 1 - 18 Units.
This course is offered, with permission, to students undertaking reading in a field of special interest.

DESN 527. Seminar in DESN. 3 Units.
This seminar addresses topics of current interest with a strong emphasis on research. It is intended primarily for the faculty and doctoral students of the DESN Department.

DESN 601. Special Topics in MIDS. 1 - 18 Units.
This course is offered, with permission, to Ph.D. candidates undertaking reading in a field of special interest.

DESN 701. Dissertation Ph.D.. 1 - 9 Units.
(Credit as arranged.) Prereq: Predoctoral research consent or advanced to Ph.D. candidacy milestone.

ECON Courses

ECON 102. Principles of Microeconomics. 3 Units.
This course is an introduction to microeconomic theory, providing a foundation for future study in economics. In particular, it addresses how individuals and businesses make choices concerning the use of scarce resources, how prices and incomes are determined in competitive markets, and how market power affects the prices and quantities of goods available to society. We will also examine the impact of government intervention in the economy.

ECON 103. Principles of Macroeconomics. 3 Units.
While Microeconomics looks at individual consumers and firms, Macroeconomics looks at the economy as a whole. The focus of this class will be on the business cycle. Unemployment, inflation and national production all change with the business cycle. We will look at how these are measured, their past behavior and at theoretical models that attempt to explain this behavior. We will also look at the role of the Federal Government and the Federal Reserve Bank of the United States in managing the business cycle.

ECON 216. Data Visualization in R. 3 Units.
Visualizations, such as graphs and maps, provide a compelling and intuitively appealing approach to understanding data and communicating that understanding to others. This course provides a practical, hands-on introduction to the creation of beautiful visual displays of social science data. We will learn the powerful but easy to use visualization tools in the R language. No prior experience in working with data or in coding is required. Counts for CAS Quantitative Reasoning Requirement. Prereq: Sophomore student standing.

ECON 307. Intermediate Macro Theory. 3 Units.
Macroeconomics studies aggregate indicators of the performance of an economy, most commonly measured in terms of GDP, and the rates of unemployment and inflation. An important goal of macroeconomic researchers is to develop a model of an economy that is simple, yet powerful enough to explain the historical trends of these aggregate economic indicators. Needless to say, coming up with a good model has remained a very difficult task. So far, there is no single model that is good enough to coherently explain even the most prominent historical trends of aggregate economic indicators. But several models have been built, each offering insight into a certain aspect of the economy. Throughout the course model building is motivated by real world cases from the American economy. Prereq: ECON 102 and ECON 103.

ECON 308. Intermediate Micro Theory. 3 Units.
This course builds on ECON 102 and provides a more in-depth analysis of the theory of the consumer, the theory of the firm, market equilibrium, market failure and government intervention in the market. The focus in this class is on intuition, rather than mathematical derivations, although there will be some. You should come away from this course with a greater understanding of how consumers and firms make their decisions and how they interact in the market place. Note: a student cannot receive degree credit for both ECON 308 and ECON 309. Prereq: ECON 102 and (MATH 121 or MATH 125).
ECON 309. Intermediate Micro Theory: Calculus-Based. 3 Units.
This course builds on Economics 102 and provides a more in-depth analysis of the theory of the consumer, the theory of the firm, market equilibrium, market failure and government intervention in the market. We will use calculus to derive supply, demand and market equilibrium from first principles. You should come away from this course with a greater understanding of how consumers and firms make their decisions and how they interact in the market place. Note: a student cannot receive degree credit for both ECON 308 and ECON 309. Prereq: ECON 102 and (MATH 122 or MATH 126).

ECON 312. Entrepreneurial Finance. 3 Units.
This course explores the financing and financial management of entrepreneurial new ventures. The course will focus on issues of financial management of new ventures (forecasting cash flows, cash flow management, valuation, capital structure) and the various financial methods and mechanisms available to entrepreneurs (bootstrapping, angel investors, venture capitalists, IPOs). Offered as ENTP 310 and ECON 312.

ECON 326. Econometrics. 4 Units.
Econometrics is the application of statistics to empirical economic analysis. One way of testing the validity of economic theories is to gather data and apply statistical tests to see if the data support the theory. These data are usually gathered by observing actual economies, firms and consumers, rather than by performing experiments in a laboratory. Because field data does not have the precision and control of laboratory data, analysts must compensate by adjusting their statistical procedures. In this class, we will concentrate on regression analysis, which is the basic tool of the economic researcher. We will study the assumptions commonly made in the application of this technique, the consequences of violating these assumptions, and the corrections that can be made. Students will have a chance to formulate and test their own hypotheses using econometric software available for personal computers. Prereq: ECON 102 and ECON 103 and (OPRE 207 or STAT 243 or STAT 312).

ECON 327. Advanced Econometrics. 3 Units.
This class builds on the foundations of applied regression analysis developed in ECON 326. The goal of the class is to equip students with the tools to conduct a causal analysis of a hypothesis in a variety of settings. Topics will include causality, panel and time series data, instrumental variables and quasi-experiments, semi- and non-parametric methods, and treatment evaluation. Offered as ECON 327 and ECON 427. Prereq: ECON 326.

ECON 328. Designing Experiments for Social Science, Policy, and Management. 3 Units.
Both economists and firms are increasingly relying on experiments to study the economic behavior of individuals and the effectiveness of policies in a wide range of settings. This course gives students the tools they need to design and critique experiments that answer a research or business question. A small part of the class will be devoted to important theoretical concepts in experimental design, such as treatments, factorial designs, randomization, internal and external validity, biases, and inference problems. The bulk will be devoted to learning about how these concepts come together by discussing exciting new experimental work on topics such as discrimination and identity, cooperation versus self-interest, and dishonesty and corruption. Prereq: ECON 102 and (OPRE 207, STAT 201, STAT 243, STAT 312, ANTH 319, or PSCL 282).

ECON 329. Game Theory: The Economics of Thinking Strategically. 3 Units.
The term “game theory” refers to the set of tools economists use to think about strategic interactions among small groups of individuals and firms. The primary purpose of this course is to introduce students to the basic concepts of game theory and its applications. The class will stress the use of game theory as a tool for building models of important economic phenomena. The class will also include a number of experiments designed to illustrate the game theoretic results, and to highlight how reality may depart from the theory. The course will stress the value of thinking strategically and provide students with a framework for thinking strategically in their everyday lives. Rather than approaching each strategic situation they encounter as a unique problem, students will be taught to recognize patterns in the situations they face and to generalize from specific experiences. A paper on an application of game theory will be required for graduate students. Offered as ECON 329 and ECON 429. Prereq: ECON 102.

ECON 330. Economic Behavior and Psychology. 3 Units.
This course is an introduction to Behavioral Economics, a growing field which incorporates insights from other disciplines—primarily psychology—into microeconomic models. We will cover fundamental aspects of decision-making, such as how people respond to risk, how people make trade-offs between short-term and long-term rewards, and the ways in which people aren’t as selfish as standard economic models suggest. We will cover novel economic models that can accommodate phenomena such as altruism, loss aversion, and self-control problems. We will discuss empirical applications of these concepts in areas ranging from personal finance and health to marketing and public policy. Prereq: ECON 102.

ECON 332. Economic Analysis of Labor Markets. 3 Units.
This course explores the economics of work and pay. We take a comprehensive look at labor markets in the U.S. and other advanced countries and examine related social policy issues. These include the effect of unions on wages; the underpinnings of the income distribution of the U.S.; issues of poverty and welfare; discrimination and wage differential by gender and race; the relationship between work and family; education as a determinant of wages; immigration and migration, and the way firms use wage and employment practices to motivate their employees to work productively. What makes labor economics special is that the commodity we examine is human labor, something that is central to the organization of our lives and the functioning of the economy. Labor economics thus applies the standard neoclassical model of demand, supply, and equilibrium to many areas that also have a profound human dimension. Prereq: ECON 102.
ECON 333. The Economics of Organizations and Employment Relationships. 3 Units.
Economic activity is guided not only by the "invisible hand" of the market, but also by the "visible hand" of management. This class uses microeconomic concepts to understand different ways of organizing economic activity, including firms, cooperatives, and state-owned enterprises. The course focuses on the roles of information, property rights, and incentives in determining the performance of different types of organizations. We look at problems faced by real organizations, examining questions such as, are Facebook and Uber fundamentally new types of firms? Why do some firms offer high-paying jobs while competitors in the same industry do not (e.g., Costco vs. Walmart)? What are the impacts of different kinds of contracts with workers and supply chain firms on incentives to work hard, invest, and innovate? Should firms maximize shareholder value, or something else? Why are firms often not able to survive "disruptive innovation"? Are venture capitalists promoters or thwarters of innovation? An objective of the course is to give students a rigorous understanding of fundamental principles that will allow them to examine their own careers, even as many features of the economy change dramatically. Prereq: ECON 102.

ECON 338. Law and Economics. 3 Units.
This course examines legal institutions and rules from an economic perspective. Students will learn when and how legal rules can be efficient. Topics will include property law (including intellectual property), tort law, contracts, and crime. Offered as ECON 338 and ECON 438. Prereq: ECON 102.

ECON 341. Money and Banking. 3 Units.
This course emphasizes the importance of financial markets, the nature and role of the financial system, and the linkages between these—money and banking—and the economy. Emphasis is placed on both theoretical and practical constructs, on major innovations and contemporary changes, and the closely intertwined condition of financial and economic systems with monetary and fiscal policy. Offered as BAFI 341 and ECON 341.

ECON 342. Public Finance. 3 Units.
Government intervention is a pervasive feature of every modern economy. The goal of this course is to develop the economic tools for understanding and evaluating a wide range of government behaviors such as taxation and redistribution policy, the public provision of goods and services, and the regulation of private markets. ECON 342 begins by considering "market failures" that justify government intervention in a market economy. To respond to such failures, governments must raise revenues through taxation. Using the tools of microeconomic theory, we will develop a framework for thinking about the positive and normative effects of alternative forms of taxation. Particular attention will be paid to the individual income tax in the U.S., allowing students to understand the efficiency, distributional and behavioral implications of recent changes in the tax code. We will then turn to the expenditure side of the public sector. The economic principles used to evaluate public expenditures will be discussed and exemplified through the analysis of significant public programs. Of particular interest will be the effect of public programs on the incentives faced by workers and families. Prereq: ECON 102.

ECON 346. Economic Perspectives. 3 Units.
This course examines important contemporary and historical issues from an economic perspective. It enables students to think about the world "like an economist." Possible topics of current interest include the transformation of Eastern Europe; ethnic and racial strife; environmental policy and sustainable development; and professional sports.
ECON 364. Economic Analysis of Business Strategies. 3 Units.
This course examines how companies compete against each other and interact with customers in an effort to increase profits. Topics include: pricing strategies, product differentiation, advertising, R&D strategies, bundling and tie-ins, entry barriers, mergers and acquisitions, collusion and cartels, the dynamics of network industries (e.g. information technology), and technology adoption and diffusion. The course will take two complementary perspectives. First, we will consider the point of view of companies, and ask how different business strategies can affect competitive success. Second, we will consider the perspective of consumers and policymakers: we will ask whether different firm strategies enhance or reduce social welfare, and will explore different policy options to increase welfare (e.g. antitrust policies, patent systems). The first part of the course will utilize a range of basic economic tools. In the second part of the course, we will apply what was learned in the first part to real examples of firms and industries, including both business and legal cases. Prereq: ECON 102.

ECON 366. Economics of Sports. 3 Units.
The world of sports provides many captivating examples of how economic tools and methods can be understood through real-world applications. While the popularity of sports is unquestioned, there are many ways in which economics can delve more deeply into the hidden inner-workings of the sports world. When sports teams acquire a new player, are they attempting to maximize wins, or profits? Do the NCAA, NFL, or other sports leagues have a monopoly, and what costs would this entail? What incentives guide sports teams, strategies, and would they ever lose on purpose? Is it worth it to subsidize a sports team to build a new stadium, or renovate an existing arena, in your city? The purpose of this course is to perform economic analysis of sports teams, leagues, and institutions by applying economic tools to a variety of sport-related topics. Microeconomic theory is applied to these questions, and others, drawing from economic fields including industrial organization and public finance. Students with an interest in applying basic economic tools to answer real-world questions in the rapidly growing world of sports should strongly consider taking this course. Prereq: ECON 102.

ECON 368. Environmental Economics. 3 Units.
Economics provides a critically important lens for understanding why environmental problems arise and persist, and the consequences of efforts to mitigate those problems. We will apply economic tools to real-world problems, such as: how can we address climate change without massive job loss? why do markets fail to prevent pollution, and how can government policy do better? Under what circumstances can companies profit by polluting less? What kinds of policies can spur the invention of green technologies? Class sessions will include guest presentations from professionals who are actively working on environmental challenges. Offered as ECON 368 and ECON 468. Prereq: ECON 102.

ECON 369. Economics of Technological Innovation and Entrepreneurship. 3 Units.
This course is designed to help students identify, evaluate, and obtain control over technological opportunities so they may successfully understand the challenges of starting new companies. The course focuses on four themes: 1) the source, discovery and evaluation of technological opportunities; 2) the process of organizing a new firm to produce new technology that satisfies the needs of customers; 3) the acquisition of financial and human resources necessary to exploit technological opportunities; and 4) the development of mechanism to appreciate the returns from exploitation of technological opportunities. Prereq: ECON 102.

ECON 372. International Finance. 3 Units.
This course deals with open-economy macroeconomics and international financial markets, covering open-economy national income analysis, international macroeconomic policy coordination, exchange rate determination, foreign portfolio investment, and global financial crises. Offered as BAFI 372 and ECON 372. Prereq: ECON 103.

ECON 373. International Trade. 3 Units.
This course deals with international trade theories and policies, covering: gains from and patterns of trade; immigration; foreign direct investment; protectionism; multilateral trade liberalization; regionalism; and the costs and benefits of globalization within, as well as among, nations. Prereq: ECON 102.

ECON 374. Financial Regulation. 3 Units.
This course will provide students with an understanding of the economic underpinnings of financial regulation as it exists in the United States today. The course will highlight salient aspects of financial markets, such as asymmetric information and the chains of exposures linking financial market participants, that make financial regulation both necessary and yet problematic. Emphasis will be put on the difference between regulations on individual financial firms as compared with regulating for systemic financial stability. The course will be designed to: (1) provide enhanced understanding of financial markets to undergraduate students who have already taken ECON/BAFI 341 (Money and Banking); (2) provide institutional insight to master’s level finance students; (3) illustrate the application of welfare analysis to financial regulation, and (4) teach all students to think critically about regulatory arbitrage and the dynamic evolution of regulated markets. Prereq: ECON 102, ECON 103 and (ECON 341 or BAFI 341).

ECON 375. Economics of Developing Countries. 3 Units.
This course focuses on international aspects of economic development. The term “developing country” is often defined as a country that exhibits low per capita income, high poverty level, low level of industrialization, or low life expectancy. In terms of size, the developing countries make up at least three-fourth of the world population. Why do we study those countries’ economies separately from the industrialized economies? In fact, low economic growth, high unemployment, or high poverty rates also exist in many developed countries. The differences lie not in the types of problems but in the causes of these problems. In addition, differences in the kind of institutions that prevail in developing countries also lead to different policy prescriptions. Among developing countries, differences in historical experience, cultural practices, political institutions and economic conditions are also enormous. Illustrations and explanations of those differences are provided from a wide range of developing countries. Prereq: ECON 102.

ECON 376. Inside Financial Crises. 3 Units.
Financial crises throughout history share common elements, though each one contains aspects unique to its own era. Why do financial systems tend to develop imbalances that lead to bankruptcies and systemic collapse? What are the linkages that cause spillovers from financial systems to the broader economy? What tools are available to detect and counter financial pressures before they erupt into economic catastrophe? This course will examine these issues, by examining several recent financial collapses, including the 2007-2009 global financial crisis. We consider post-crisis legislative and regulatory responses, and ask whether they are likely to dramatically reduce the odds of another crisis. Prereq: ECON 102 and ECON 103.
ECON 377. Topics in Monetary Policy. 3 Units.
Central banks have become enormously powerful economic institutions in many countries, yet their purposes and functions are widely misunderstood. This course is designed to enrich one’s understanding of how central banks, such as the Federal Reserve System, actually operate; how they have been adapting to changes in the economic and financial landscape; and how they have been adapting to changes in technology. The course will highlight current monetary policy and central banking issues being dealt with in the United States and elsewhere. The course will emphasize the connection between economic theory and the practice of central banking. Where relevant, topics will be examined from a multi-country perspective, so that the practices of several different countries may be compared and contrasted. Prereq: ECON 102 and ECON 103.

ECON 378. Health Care Economics. 3 Units.
Healthcare accounts for over one-sixth of the U.S. national economy and over one-eighth of its workforce, shares that have dramatically increased over the last 50 years. The rapid growth in healthcare spending has accompanied growing concerns about the quality and efficiency of U.S. healthcare delivery and persistent disparities in access to care. Are these concerns justified? If so, what can policymakers do and what are they doing to address them? The purpose of this course is to develop the analytical skills necessary for understanding how the U.S. healthcare sector operates, how it has evolved, the forces at work behind perceived deficiencies (in access, quality and cost control), and the expected impact of alternative policy proposals. These issues are addressed through the lens of microeconomic theory. Under this framework, outcomes result from the interaction of decisions made by participants in the healthcare economy (e.g. patients, providers, insurers, government), with those decisions governed by the preferences, incentives and resource constraints facing each decision-maker. This course should be of particular interest to students who envision future careers in healthcare delivery, healthcare management, pharmaceutical and device innovation, health insurance or public health, as well as other policy-oriented students seeking to understand the contentious issues in healthcare policymaking. Prereq: ECON 102.

ECON 380. Computational Economics. 3 Units.
Over the past two decades, computational methods have become an indispensable tool in social science studies. The goal of this course is to introduce undergraduate students to numerical methods and computer implementations for conducting modern quantitative research in economics and social sciences. In this course, we will learn about how to utilize computational methods to conduct research in several different domains, including microeconomics, macroeconomics, financial market, and empirical methods. At the conclusion of this course, students will be able to effectively apply quantitative solution methods to a wide range of economic, financial, and business issues. In addition, students will learn Python as a basic programming language. The learned programming skills will be readily applicable out of classroom. Computational economics will provide students a comprehensive experience and training in economics, computer science, and statistics. Students will be able to distinguish themselves on the job-market, as candidates ready to work in an environment that requires both economics insights and strong quantitative data/computational skills. The course will also be highly useful for students who plan to go to graduate school in either economics, business, finance or statistics. Recommended preparation but not required: basic programming experience (e.g. using Python, R, Matlab, Stata). Prereq: (ECON 102 or ECON 103) and (STAT 243 or STAT 312 or STAT 312R or OPRE 207).

ECON 386. Urban Economics. 3 Units.
Microeconomic theory as taught in principles (and even intermediate) does not usually take into account the fact that goods, people, and information must travel in order to interact. Rather, markets are implicitly modeled as if everyone and everything is at a single point in space. In the first part of the course, we will examine the implications of spatial location for economic analysis. In the second part of the class, we will use microeconomic tools to understand urban problems. Topics that we will cover include urban growth, suburbanization, land use, poverty, housing, local government, transportation, education, and crime. Prereq: ECON 102.

ECON 391. Advanced Topics and Writing in Economics. 3 Units.
This course is characterized by intense yet open-ended intellectual inquiry, guided by reading from primary and secondary sources, and will include extensive practice in written and oral communication. The focus will be on contemporary economic issues and scholarship, and assumes a high level of ability in undergraduate economics training. Specifically, this course provides an avenue for an intellectual discourse on some of the most challenging present day economic issues, and we will rigorously think and write about how economic concepts can be applied to virtually any topic, issue and event in the social world. Students will be challenged throughout the course to think and write like an economist and see the world through the economist’s lens. Counts as SAGES Departmental Seminar. Prereq: (ECON 308 or ECON 309) and (ECON 326 or BAFI 361).

ECON 395. The Economy in the American Century. 3 Units.
This course satisfies the SAGES capstone experience for economics majors, giving students the opportunity to apply their knowledge from previous coursework to conduct economic research in the role of an on-the-job economist. Opportunities to research economic issues on the American economy will be provided in two ways: one through short data analysis projects on various assigned topics and another larger project of original research on a topic of the student’s choosing. For the shorter empirical assignments students will take on the role of an economist, whether it be for a company or in public policy. Students will offer both theoretical and empirical analyses of economic issues, both historical and new, such as wage discrimination, determining damages in a court case, analyzing product data for a firm, and analyzing a firm’s anticompetitive behavior. For their project of original research, students will identify an applied research problem, determine an appropriate model/methodology, gather data, run an economic analysis, and interpret the results. Projects will be presented in writing, orally, and with posters. Counts as SAGES Senior Capstone. Prereq: ECON 326 and Junior or Senior standing.

ECON 397. Honors Research I. 3 Units.
All students admitted to the Honors Program will undertake an independent research project (Senior Thesis) under the guidance of a faculty member (Thesis Advisor). ECON 397 is used to define the topic, review relevant literature, formulate hypotheses, and collect appropriate data toward completing their research project. Students will have the responsibility of providing regular progress reports to their thesis advisor highlighting the work accomplished to date, the immediate challenges confronting them, and a plan to complete the project in the time remaining. Prereq: ECON 102, ECON 103, ECON 326 and ECON 308 or ECON 309; Junior standing and minimum GPA of 3.3 in ECON major and 3.0 overall.

ECON 398. Honors Research II. 3 Units.
This is the second course in a two course sequence to complete the Honors Research Program in Economics. Counts as SAGES Senior Capstone. Prereq: A grade of B or higher in ECON 397.
ECON 399. Individual Readings and Research. 1 - 6 Units.
Intensive examination of a topic selected by the student. A student must receive permission from the program administrator before the start of the term, and permission will only be granted in cases where the student has a clear learning plan and objectives in using the independent readings/research option that cannot be met through available course offerings.

ECON 427. Advanced Econometrics. 3 Units.
This class builds on the foundations of applied regression analysis developed in ECON 326. The goal of the class is to equip students with the tools to conduct a causal analysis of a hypothesis in a variety of settings. Topics will include causality, panel and time series data, instrumental variables and quasi-experiments, semi- and non-parametric methods, and treatment evaluation. Offered as ECON 327 and ECON 427.

ECON 429. Game Theory: The Economics of Thinking Strategically. 3 Units.
The term "game theory" refers to the set of tools economists use to think about strategic interactions among small groups of individuals and firms. The primary purpose of this course is to introduce students to the basic concepts of game theory and its applications. The class will stress the use of game theory as a tool for building models of important economic phenomena. The class will also include a number of experiments designed to illustrate the game theoretic results, and to highlight how reality may depart from the theory. The course will stress the value of thinking strategically and provide students with a framework for thinking strategically in their everyday lives. Rather than approaching each strategic situation they encounter as a unique problem, students will be taught to recognize patterns in the situations they face and to generalize from specific experiences. A paper on an application of game theory will be required for graduate students. Offered as ECON 329 and ECON 429. Prereq: MBAC 512 or MBAP 406.

ECON 431. Economics of Negotiation and Conflict Resolution. 3 Units.
Students frequently enroll in a negotiation class with one thought in mind—negotiating a better job offer from an employer. They soon learn, however, that negotiation skills can do far more than improve a paycheck. Negotiations occur everywhere: in marriages, in divorces, in small work teams, in large organizations, in getting a job, in losing a job, in deal making, in decision making, in board rooms, and in court rooms. The remarkable thing about negotiations is that, wherever they occur, they are governed by similar principles. The current wave of corporate restructuring makes the study of negotiations especially important for M.B.A.s. Mergers, acquisitions, downsizing and joint ventures call into question well established business and employment relationships. Navigating these choppy waters by building new relationships requires the negotiation skills that you will learn in this class. Offered as ECON 431 and ORBH 413.

ECON 438. Law and Economics. 3 Units.
This course examines legal institutions and rules from an economic perspective. Students will learn when and how legal rules can be efficient. Topics will include property law (including intellectual property), tort law, contracts, and crime. Offered as ECON 338 and ECON 438. Prereq: MBAC 512 or MBAP 406.

ECON 468. Environmental Economics. 3 Units.
Economics provides a critically important lens for understanding why environmental problems arise and persist, and the consequences of efforts to mitigate those problems. We will apply economics tools to real-world problems, such as: how can we address climate change without massive job loss? why do markets fail to prevent pollution, and how can government policy do better? Under what circumstances can companies profit by polluting less? What kinds of policies can spur the invention of green technologies? Class sessions will include guest presentations from professionals who are actively working on environmental challenges. Offered as ECON 368 and ECON 468. Prereq: MBAC 512 or MBAP 406.

EDMP Courses

EDMP 611. Theory and Practice of Collective Action. 3 Units.
The ability of autonomous and interdependent parties to coordinate actions, or to act cooperatively, affects a wide range of organizational and social problems. This course addresses the theory and practice of collective action in local, national and global contexts. Case studies of collective action problems, such as environmental protection, community revitalization, and the mobilization of interest groups will be discussed. Offered as DBAP 611 and EDMP 611. Prereq: Must be enrolled in the DM Program.

EDMP 613. Leading Change. 3 Units.
Change is an enigma and yet sustained, desirable change (SDC) drives adaptation, growth and life itself. In this course, we will continuously attempt to answer two questions: What is the process of sustained, desirable change? and What is the role of a leader? Concepts from complexity theory will be used, including understanding the multilevel nature of SDC at the individual, dyad, team, organization, community, country, and global levels. Intentional Change Theory (ICT) will be used as the organizing concept for the changes studied. Leadership and its development will be examined by studying a number of topics and applying them to three major case studies: (1) yourself; (2) practice coaching with compassion; and (3) a major change project. This course will explore questions, such as: Who are effective leaders? How do they think and act? What makes us want to follow them? How are leaders developed? What is the role of emotional and social intelligence? How does a leader’s mind, body, heart, and spirit affect their performance? Offered as DBAP 613 and EDMP 613. Prereq: Must be enrolled in the DM Program.

EDMP 614. Business as an Evolving Complex System. 3 Units.
The goal of this course is to provide a foundation for understanding how business systems evolve, why the business systems in the major advanced countries have evolved differently over the last 100 years or so, and what the underlying driving forces are. The focus is on transformation rather than economic growth. The course examines the evolution of business systems as a result of technological and organizational change. It deals with the role of history, culture and finance in generating business organizations in various countries. The course also studies the emergence of regional innovation systems and industry clusters, as well as how digitization and globalization are changing the "industrial logic." Offered as DBAP 614 and EDMP 614. Prereq: Must be enrolled in the DM Program.
EDMP 616. Global Economic Systems and Issues. 3 Units.
This course provides a framework and analytical tools for understanding globalization and international economic relations in the context of the global political system. It analyzes the economic and political forces that are shaping global cooperation on economic matters, the role and impact of international economic institutions such as the World Bank, the International Monetary Fund, and the World Trade Organization, and evolving forms of regional governance, such as the European Union. It covers national and international policies and development and the causes and cures of international financial crises. The course revolves around concepts of efficiency, equality, power, and institutions in the making of public policy towards globalization of communications and transportation. Offered as DBAP 616 and EDMP 616. Prereq: EDMP 665.

EDMP 617. Technology and Social System Design. 3 Units.
Managers are designers who shape the social and technical world we inhabit. This course explores the process of design and asks how managers can become better designers and interventionists who anticipate and evaluate the social, economic, and political consequences of existing and emerging products, processes, and organizational forms. Offered as DBAP 617 and EDMP 617. Prereq: Must be enrolled in the DM Program.

EDMP 638. Qualitative Inquiry I. 3 Units.
This course explores ways to conceptualize an object of study and facilitates formulation of students’ conceptual work and production of research reports at the end of the first year of the program. The course conveys how to generate research ideas by critically reviewing literature and developing ideas that contribute to a problem or issue of interest by working with theory and extending previous research. The practicality of conducting certain kinds of research is evaluated and length, intensity and ethical constraints of different research efforts are examined. Each student produces a report communicating and supporting a conceptualization of the phenomenon of interest involving independent, mediating and dependent variables. The paper defines a problem of practice, presents, both visually and in narrative form, concepts shaped by field experience and prior writing that promote understanding of the problem, and includes a research proposal describing sample, data collection and data analysis. Offered as DBAP 638 and EDMP 638. Prereq: EDMP 665.

EDMP 640. Social Ethics: Contemporary Issues. 3 Units.
The course draws upon intellectual ancestors and current thinkers in moral philosophy and ethics to assist each student in identifying, analyzing, and discussing social and ethical questions pertaining to the definition and purpose of contemporary life, the need for moral coherence, and the meaning of life in a global society. The unifying theme of the course is Tolstoy’s question, “How then shall we live?” The course does not seek to provide answers to the great questions of life. Rather, it tries to expand each student’s capacity to grapple with such questions. Offered as DBAP 640 and EDMP 640. Prereq: Must be enrolled in the DM Program.

EDMP 641. Qualitative Inquiry II. 3 Units.
This course guides the student in conducting the qualitative research project that was proposed in EDMP 638. Fieldwork and initial analysis is conducted during the summer when data based semi-structured interviews is collected and analysis begins using inductive coding techniques. A summer residency is held in mid-June to assess progress as final data collection and analysis continues. The aim of the fall semester is to prepare a formal research report on that project, which will be submitted to an academic research conference. The final report includes a revision of one’s conceptual model, integrating new understandings and literature arising from the data collection and analysis. Offered as DBAP 641 and EDMP 641. Prereq: EDMP 638.

EDMP 642. Directed Studies Seminar. 0 - 9 Units.
At different times during the Program, EDM students register for Directed Studies courses. The purpose of these courses is to recognize the work the students are doing to conduct and present their individualized research at a high quality level. Activities conducted under the Directed Studies courses are dedicated to the collection of qualitative or quantitative data and the preparation of research reports. Offered as DBAP 642 and EDMP 642. Prereq: Must be enrolled in DM program or PhD in Management: Designing Sustainable Systems track.

EDMP 643. Measuring Business Behaviors and Structures. 3 Units.
This course aims to develop the basic foundations and skills for designing and executing generalizable studies. It focuses on building competence in model building, construct measurement, research design, data collection methodologies, and application of analytical software commonly involved in qualitative inquiry. Covered topics include framing research questions, reliability and validity of measurement, quasi-experimental research design, and fieldwork for data collection. Classes are designed to balance between the theory and practice of quantitative research design, and will be linked to the participant’s own research projects. Offered as DBAP 643 and EDMP 643. Prereq: EDMP 641.

EDMP 644. Integration of Qualitative and Quantitative Inquiry. 3 Units.
Using the mixed method approach developed in previous courses, this course focuses on critically analyzing selected pieces of published applied and policy research to develop a critical appreciation of issues and debates that have wide applicability and relevance. In particular, it offers students ways to integrate and triangulate using a mixed method approach, different forms of evidence, and related evidence. In addition, this course addresses common method choice and justification issues and related challenges of validity and theory formulation that typically arise during the students’ execution of a series of individual research projects. Application of critical analysis and appreciation approach in justifying mixed methods designs to the student’s own research work is encouraged and supported by sharing and discussing common research and methodology themes and problems. Offered as DBAP 645 and EDMP 645. Prereq: Must be enrolled in the DM Program.

EDMP 646. Advanced Analytical Methods for Generalizing Research. 3 Units.
This course addresses advanced topics in regression and structural equation modeling such as latent growth curve models, partial least squares, logit models, tests for various types of invariance, multiple-group analysis, multilevel analysis, and analyzing qualitative/categorical data. These analytical methods are intended to enhance the student’s toolkit as to facilitate a strong bridge to the academic literature and the application to specific data based problems that arise in applied managerial research. Offered as DBAP 646 and EDMP 646. Prereq: Must be enrolled in the DM Program.
EDMP 648. Causal Analysis of Business Problems I. 3 Units.
Model Building & Validation I introduces fundamental concepts in theory-based model building and validation. In this course students will develop, explore, refine and validate a range of models appropriate for addressing their problem of practice including classification models, process models, variance models, and articulating nomological networks. In particular, the course will focus on effective conceptualizations of causation, control, mediation, and moderation. Further, foundational statistical techniques such as tests of assumptions of the data, exploratory factor analysis, and regression and path analysis will be introduced. Offered as DBAP 648 and EDMP 648. Prereq: Must be enrolled in the DM Program.

EDMP 649. Causal Analysis of Business Problems II. 3 Units.
Building upon the first course in Model Building & Validation, this course will guide students through the theoretically-grounded variance models that are required for testing through structural equation modeling (SEM) in the quantitative portion of their research. Fundamental concepts in model testing will be reinforced using path analysis, and will include a deeper exploration of moderation by addressing topics such as moderated mediation and interaction effects. Beyond the analysis the course will emphasize precise and accurate formulation of theoretical models and associated reasoning, as well as careful interpretation of findings. The class will also delve into testing of data assumptions and prepare students for the model testing portion of their capstone assignments. Offered as DBAP 649 and EDMP 649. Prereq: Must be enrolled in the DM Program.

EDMP 664. Knowledge Dissemination to Influence Managerial Practice. 3 Units.
The aim of this course is twofold. First, it supports students organizing and writing their DM thesis overview or their PhD thesis proposal. Also discussed are ways to organize and communicate in scientific genres, their aims and their generic properties. Secondly, students become acquainted with scientific communication and publishing. Effective reviewing, criteria for judging articles and theses, management of review processes, and how to communicate and respond to reviews are topics discussed. The course also addresses publication strategies and ways of managing and communicating scientific and managerial knowledge to different stakeholders. Offered as DBAP 664 and EDMP 664. Prereq: Must be enrolled in the DM Program.

EDMP 665. Introduction to Research Inquiry. 3 Units.
This course begins participants’ three-year research experience. Energized by one’s personal passion and commitment to the topic, we seek for the work to be accomplished at a level that makes it worthy of widespread dissemination and influence as engaged scholars. The goal in this course is to prepare students to develop their minds as scholars by understanding the world of research; develop a research identity by identifying one’s research domain; learn to read academic literature and write in a scholarly style; work with academic literature to identify and digest concepts and theories that inform research on that problem; begin to develop a conceptual model that abstracts how the world may be functioning in that problem domain and points to a research question that can guide the next stage of the research. The final deliverable for this course is to present the research topic with substantiation for its significance, relevance and timeliness in the management field. This would include the research question(s); the literature review; and proposed qualitative methodology and analytical approach(es). Offered as DBAP 665 and EDMP 665. Prereq: Must be enrolled in the DM Program.

EDMP 672. Flourishing Enterprise: Creating Sustainable Value for Business and World Benefit. 3 Units.
This course is designed to galvanize new visions of business and society, as well as organizational leadership. The course is born of a conviction that the future of human society and the natural world is intimately linked to the future of the world economy, business enterprises, and management education. The course presentations, books, dialogues, and interview projects are organized around three themes: (1) the state of the world and the economics possibilities of our time, (2) the business case for understanding business as an agent of world benefit—how business performance can profit from current and future advances in sustainable design and social entrepreneurship; and (3) tools for becoming a change leader—including the methods of Appreciative Inquiry and new insights about “strength-based” change emerging from the science of human strengths. The overarching aim is to provide a powerful introduction to the many facets of sustainable value creation as a complete managerial approach. Offered as DBAP 672 and EDMP 672. Prereq: Must be enrolled in the DM Program.

EDMP 673. Understanding, Designing, Managing Complex Systems. 3 Units.
The purpose of this course is to provide a perspective on systems thinking and complex systems and aid PhD students in expanding the ideas in their research on systems, systems models, and complex systems. The work of the course will develop with increasingly difficult books on the subject of complex systems, a major case study in health care, and individual applications of the concepts to their potential research model and methods. Offered as DBAP 673 and EDMP 673. Prereq: Must be enrolled in the DM Program.

EDMP 677. Designing Sustainable Systems. 3 Units.
Students in teams will recognize and work in practice on a managerial problem that involves dimensions of sustainability and design. They will develop a set of solutions to the problem by generating alternative models and intervention strategies to address the problem. The project results in a short presentation and written communication of the solution in a form of a poster or prototype. The course will also include presentations of intervention and action research approaches and issues of inquiry validation and theory development. Offered as DBAP 677 and EDMP 677. Prereq: Must be enrolled in the DM Program.

EDMP 680. Conflict & Cooperation in the Global Arena. 3 Units.
The global arena is described by some as a realm of perpetual conflict. Others argue that given the right institutions and incentives, international actors can find ways to achieve cooperation, peace and increased global prosperity. Still others suggest that the international political and economic arena is “what you make of it”—emphasizing the role of norms, identities and ideas in shaping international outcomes. This course will examine both theoretical and policy perspectives regarding the question of international conflict and cooperation, with a specific emphasis on drawing on insights from collective action theory and international relations scholarship. Offered as DBAP 680 and EDMP 680. Prereq: Must be enrolled in the DM Program.

This course is set up individually upon conference between the student and a DM Faculty member and is designed in consult with the DM Program Director in order to complete the student’s required coursework and research requirements within the DM Program. Offered as DBAP 699 and EDMP 699. Prereq: EDMP 665.
EMBA Courses

EMBA 417. TEAMS. 0 Unit.
This course enables the formation of E.M.B.A. study groups and classroom learning environment by introducing participants to their adult learning styles, models of group decision-making, theories of team development and rules of engagement for effective learning teams. Prereq: E.M.B.A. students only.

EMBA 430. Health Informatics, Analytics & Decision Making. 2.5 Units.
Increasingly in today's healthcare environment, those aspiring to succeed in leadership positions are expected to know and do more than their primary discipline traditionally required. They are also expected to transform their organizations - whether they are departments or IDS's - to a higher state of quality, effectiveness, efficiency and competitiveness. To meet this expectation they must be able to harness the interrelated power of information, analytics and decision support to plan, evaluate, improve, and control their organization. This course is for executives in healthcare delivery, health planning, regulatory, or accrediting organizations who will be involved with, be responsible for, or oversee: The use and/or management of health or organizational information, and analytic and decision processes; The improvement / innovation of their organization's operations and decision processes; and/or The design, acquisition, implementation, and/or evaluation of health information technologies (HIT). The course is intended to develop competence and confidence in the participant’s ability to understand and manage the complex information, analytics and decision environment. Prereq: E.M.B.A. candidates only.

EMBA 436. Accounting for Business Executives. 2.5 Units.
This course is an introduction to financial and managerial accounting, rather than a course in introductory accounting. This course is designed for the business professional and is intended to prepare the student to use the information prepared by accountants. It will not dwell in detail on the technical aspects of accounting or bookkeeping. In addition, this course is designed to help the student become an effective user of cost information, from the perspective of parties internal to the firm. This aspect of accounting is a compilation of techniques rather than a set of rules. Since the information is for private use, the goal is to create the most meaningful and useful data for use by managers. Assignments will be designed to develop the student's ability to analyze and interpret accounting data and to more effectively utilize accounting data in day to day business decisions. Finally, this course is intended to strengthen abilities to identify problems and opportunities, to search out and analyze desired information leading to a well-reasoned conclusion, and to perform sensitivity analysis around that conclusion, using financial information. Prereq: E.M.B.A. candidates only.

EMBA 437. Economic Analysis for Managers. 2.5 Units.
This course, which is limited to students in the Executive M.B.A. program, explores the basic elements of the economic system which the executive needs to know in order to understand how the firm interacts with the system and how economic factors affect decision making. Prereq: E.M.B.A. candidates only.

EMBA 438A. Business Statistics and Quantitative Analysis. 1.25 Unit.
In this course, students study the use of modern quantitative and business statistics to support the executive decision-making process. With the help of computer software, the models examined assist in describing and analyzing problems and suggesting possible managerial actions. The techniques discussed include tools for decision making under uncertainty including regression analysis. This course is part of a two (2) course sequence. Prereq: E.M.B.A. candidates only.

EMBA 438B. Business Statistics and Quantitative Analysis. 1.25 Unit.
In this course, students study the use of modern quantitative and business statistics to support the executive decision-making process. With the help of computer software, the models examined assist in describing and analyzing problems and suggesting possible managerial actions. The techniques discussed include tools for decision making under uncertainty including regression analysis. This course is part of a two (2) course sequence. Prereq: E.M.B.A. candidates only.

EMBA 439. Corporate Finance. 2.5 Units.
The central organizing principle of this course is to familiarize the class with the basics of valuation. This first course in finance introduces the tools and methods employed in valuation of projects and corporate securities. Valuation involves the determination of (i) cash flows of the firm, project or financial assets and (ii) the discount rates that are used to compute the present values of the cash flows. Asset pricing models provide the underpinnings for the development of the discount rates. The material is synthesized in capital budgeting exercises which are cost-benefit analyses of capital project cash flows to evaluate whether they are value enhancing. Prereq: E.M.B.A. candidates only.

EMBA 441. Leading Change: Self. 2.5 Units.
The primary objective of Leading Change: Self is to learn a method for assessing your knowledge, abilities, values, and interests relevant to leadership and executive management so that you will be able to develop and implement a plan for enhancing your leadership and executive capability throughout your career and life. The enabling objectives are: (a) To systematically identify your current and desired capability (i.e., knowledge, abilities, values, and interests); (b) To develop an individualized learning agenda and plan for the next 3-5 years; and (c) To explore techniques to assist others in doing the same. This course will explore questions, such as: Who are effective leaders? How are they different than managers? How do they think and act? What makes us want to follow them? How are leaders developed? How can people help others become effective leaders? What type of leader do I want to be? And, what can I do to become that type of leader? Prereq: E.M.B.A. candidates only.

EMBA 442. Innovation. 2.5 Units.
Organizations are under continuous pressure to be efficient and productive in order to generate (often short-term) profit. At the same time they must innovate to remain competitive in the long-term. Innovation involves the generation, development, and delivery of new products, processes, or businesses. Intrapreneurs are those who can successfully bring new ideas to fruition in established organizations. Innovation in the context of an established organization requires that intrapreneurs fundamentally understand the dynamics of innovation and innovation management. This course introduces fundamental concepts associated with innovation in the context of an established organization. Prereq: E.M.B.A. candidates only.
EMBA 443. Supply Chain Management. 2.5 Units.
Operations managers, ranging from supervisors to vice presidents, are concerned with the production of goods and services. More specifically, they are responsible for designing, running, controlling and improving the systems that accomplish production. This course is a broad-spectrum course with emphasis on techniques and information that are helpful to the practice of management in general and at any level. We will discuss commonly occurring application problems such as process analysis, inventory control, quality management, just-in-time concepts, etc. The field of operations management was originally concerned with manufacturing systems. But many of the same ideas apply, and the same trade-offs are present, in service organizations like health care, insurance, hotel-management, airlines and government related operations. Several manufacturing and non-manufacturing environments will be discussed explicitly, and the emphasis will be on the fundamentals of the operations function in an organization. Also we will explore the interface of operations management with other functional areas such as marketing, finance, accounting, etc. Prereq: E.M.B.A. candidates only.

EMBA 445. Expanding Boundaries. 2.5 Units.
This course will help you understand the keys to successful corporate development-competitive advantage in every business in which a firm is involved. In particular, the course will help the participants to understand the following: -Corporate development strategy through capabilities and leveragable capabilities -Before venturing into a new business, the firm has to have a clear understanding of the critical capabilities required for success in the new business. -Firms can increase the odds of success if they can leverage (parts of ) existing capabilities to new businesses. -Corporate development strategies-adapting to a market -Analyze the industry environment in order to select the competitive battlefield to increase the odds of success by leveraging some of your existing capabilities - sometimes also known as core competencies. This is a relatively low risk strategy. We will develop methodologies that will allow you to identify markets (segments) where your current capabilities are leveragable. -Shaping a market usually requires developing a completely new set of capabilities - very risky. We will develop concepts to understand techniques to mitigate these risks. -Acquisitions as one of the means for corporate development -Approximately half of the class sessions will be devoted to the specific case of acquisitions as a means to expand the boundaries of a firm. We will explore both how acquisitions contribute to competitive advantage and the selection process and integration of the acquired entity. Less emphasis will be placed on strict financial valuations and negotiations. Prereq: E.M.B.A. candidates only.

EMBA 446. Managing Risk and Real Options. 2.5 Units.
The course seeks to help corporate managers understand how financial design can be used to advance the goals and strategies of the firm. In the Finance course, you concentrated almost exclusively on the firm’s capital expenditure decision. You studied in great detail the discounted cash flow model, NPV, how you get your cash flows, and how you discount according to risk. Now we move to the other side of the balance sheet to look at how the firm can finance these expenditures. The first part of this class provides the basic building blocks of financial engineering which begins with call and put options. The course focuses on using derivatives (calls and puts) to change a firm’s risk profile with respect to equity, interest rate, foreign exchange, credit, and commodity risks. We look at capital structure decisions and securitization issues and discuss what it means to create optimal structures. Almost immediately we will tie this to our financial crisis and obtain an appreciation for financial designs that could be setup so as to enhance firm value, mitigate systemic risks, or accomplish specific sustainable goals in a global economy. The second part of the class is geared towards real options and its relationship to strategic planning. In competitive markets, no one expects to formulate a detailed long-term plan and follow it mindlessly. As soon as we start down the path, we begin learning about business conditions, competitors’ actions, and so forth and we need to respond flexibly to what we learn. Unfortunately, the financial tool most widely relied on to estimate the value of strategy, DCF, assumes that we follow a predetermined plan, regardless of how events unfold. A better approach to valuation would incorporate both the uncertainty inherent in business and the active decision making required for strategy to succeed. Prereq: E.M.B.A. candidates only.

EMBA 449. Contemporary Issues in Management. 2.5 Units.
This course is intended to address the contemporary issues in management to be decided by faculty and student interest. With the current global economic crisis, this year the course will focus on International Finance and Economics. In subsequent years, the topics will evolve as the global business climate changes. Prereq: E.M.B.A. candidates only.

EMBA 450. Managerial Marketing. 2.5 Units.
This course is designed with three overarching objectives. The first is an emphasis on decision making in a broad range of market contexts. The second objective builds on the notion that decision making is dynamic; that is, market situations demand not just one good decision but a series of them as a situation unfolds (providing new and varied information for each subsequent decision). Integrating concepts from a number of the courses that you are taking concurrently into decision-making about markets is a final objective. Prereq: E.M.B.A. candidates only.
EMBA 451. Business Model Design. 2.5 Units.
In most companies the process of designing business models is an ad hoc process and in my opinion an inefficient process. In this course you will learn a systematic but iterative process to do this. We will expose you to some broad categories of business models and internalize the basic logic of how to make money in each of these categories. The first step is to recognize which of these categories is most applicable to your business. The second step is to customize these broad patterns to the specifics of the business at hand. This seems easy because everything is in English and there are no hard formulas to figure out. However, unless you discipline yourself to systematically go through a structured process (there are other equally valid processes than the ones you’ll be exposed to) it is very easy to fall into the ad hoc trap. You will internalize this process by applying it over a wide range of business situations that will give you confidence in its applicability to any business opportunity. After the completion of this course you should be quickly able to draw the outline of a business model for any business opportunity that you’re considering. Prereq: E.M.B.A. candidates only.

EMBA 458. Healthcare Financial Management. 2.5 Units.
This course will consider basic financial concepts, techniques, and strategies for institutions and companies in the U.S. health care delivery system. Note that this may differ from the influences one would find in a different country since the payment system and ownership structures vary widely around the world. These basics include relevant factors in the economic, medical, and financial environment that shape an intelligent financial decision. Therefore, although the course is directed towards financial management decisions in health delivery organizations, it may also be useful for those who supply the industry (equipment, drugs and services), purchase services from it (employers, third party administrators, health plans) or finance these (insurance, banking, investors). Public policy and the structure of the industry also play an important role in the course. However, the general approach is from the point of view of a decision-maker in a health care organizational setting dealing with issues with important economic or financial dimensions. Prereq: E.M.B.A. candidates only.

EMBA 459. Health Economics and Strategy. 2.5 Units.
The central goal of this course is for students to master essential economic concepts and their application to critical issues in the U.S. healthcare economy. After taking this course, students should be able to: 1. Understand basic microeconomic theory as it applies to firm and consumer behavior in healthcare and health insurance markets. 2. Understand the role of market forces (including market failures) and public policy in determining the price and allocation of medical services. 3. Understand the underlying causes of “changing market conditions” and the challenges and opportunities they create for healthcare organizations. 4. Converse fluently and accurately about the economic forces at play in the healthcare economy. Prereq: E.M.B.A. candidates only.

EMBA 464. Legal Environment. 2.5 Units.
This course provides a brief overview of the legal system that managers face, with an emphasis on contracts, corporate law, property rights and the modern regulatory apparatus of government. Contracts include full coverage of the Uniform Commercial Code. Corporate law is the capstone of the consideration of other forms of business organizations such as partnerships. Regulatory areas include employment law and environmental law. Property coverage includes modern struggles over intellectual ownership claims (patents, copyrights, etc.). Prereq: E.M.B.A. candidates only.

EMBA 472. Leading Change: The Organization. 2.5 Units.
Participants in this course will be challenged to enhance their leadership capacity by assessing and analyzing the knowledge, abilities, values and interests relevant to executives. The course will also explore the art of reading and understanding organizations in ways that help us imagine, design, and develop organization excellence. Prereq: E.M.B.A. candidates only.

EMBA 473. Leading Change: Teams. 2.5 Units.
Sustainability of effective leadership is necessary for adaptive, resilient organizations and for the health and functioning of the leader. Chronic stress results in diminished cognitive functioning, as well as poor health and a contagion of negative mood in organizations. The latest advances in social neuroscience and endocrinology will be used to develop an understanding how someone in a leadership position can renew themselves and mitigate the ravages of chronic stress. The short course will focus on how to coach others toward renewal and sustainability. Prereq: E.M.B.A. candidates only.

EMBA 475. Managing in a Global Economy. 3 Units.
This course is designed to present first-hand issues in international management. It accomplishes this by means of readings, a written assignment and, most importantly, an international trip designed to witness different management cultures, styles and environments for business in the international community. Faculty responsibility rests with the Faculty Director of the E.M.B.A. Program as well as a “Resident -Faculty” specific to each field trip. Such faculty are drawn from the Weatherhead community and vary by the design and destination of the trip. In addition, the course is staffed by an administrative assistant from the complement of Dively CMDR staff. Occasionally and where appropriate, there is also “in-tourist” assistance in some of our foreign locations Prereq: E.M.B.A. candidates only.

EMBA 476. Corporate Governance and Dialogues in Healthcare. 2.5 Units.
The course incorporates insights from leaders in a number of dialogue sessions and is grounded in the following themes: -The role of the board of directors; -Leadership in healthcare organizations; -The CEO relationship to the firm’s principal stakeholders (shareholders, board of directors, employees, customers) and the CEO’s responsibility to give back (time and money) to the community; -CEO role in developing and maintaining the organization’s vision, values and corporate culture. Prereq: E.M.B.A. candidates only.

EMBA 478A. Leading Design in Organization. 1.25 Unit.
This course explores the ideas and methods of design as a new approach to management practices that is well suited to the changing environment that organizations face in contemporary culture and the emerging economic environment in the United States and abroad. It is a studio course as well as a seminar, because it is designed around a project that each student brings to the EMBA program, a project that is grounded in the issues and operations of the student’s organization or in the kind of organization that the student wishes to explore. In addition to the yearlong project, the course will also include important readings in management and organizational literature that are relevant to the new direction of strategic thinking. Finally, the course will draw on the expertise of other faculty at the Weatherhead School of Management who will be called upon to share their practical expertise and theoretical knowledge in the development and execution of the student’s management design project, whether in the area of vision and strategy, new product development of goods and services, operations, organizational design and configuration, or related topics. This is the first part of a two semester course. Prereq: E.M.B.A. candidates only.
EMBA 478B. Leading Design in Organizations. 1.25 Unit.
This course explores the ideas and methods of design as a new approach to management practices that is well suited to the changing environment that organizations face in contemporary culture and the emerging economic environment in the United States and abroad. It is a studio course as well as a seminar, because it is designed around a project that each student brings to the EMBA program, a project that is grounded in the issues and operations of the student’s organization or in the kind of organization that the student wishes to explore. In addition to the yearlong project, the course will also include important readings in management and organizational literature that are relevant to the new direction of strategic thinking. Finally, the course will draw on the expertise of other faculty at the Weatherhead School of Management who will be called upon to share their practical expertise and theoretical knowledge in the development and execution of the student’s management design project, whether in the area of vision and strategy, new product development of goods and services, operations, organizational design and configuration, or related topics. This is the second part of a two semester course. Prereq: E.M.B.A. candidates only.

EMBA 479. Leading Change: Society. 2.5 Units.
This course explores a proposition: that business, the motor of our society has the opportunity to be a new creative force on the planet, a force that could contribute to the well being of many. Our exploration and search is for "business as an agent of world benefit" and the questions are many: what does it look like, where is it happening, what are the market, societal and leadership enablers, and what are the results? Prereq: E.M.B.A. candidates only.

ENTP Courses

ENTP 301. Entrepreneurial Strategy. 3 Units.
This course is designed to show students how to identify potential business opportunities, determine what constitutes a good business model, and to strategically implement a business proposal. Topics of focus include an overview of the entrepreneurial process, determinants of venture success in high tech and other business environments, and strategies for industry entry and venture growth. Prereq: At least Sophomore standing.

ENTP 302. Creativity in Design & Business: Sources of Perception, Imagination, & Creative Thinking. 3 Units.
The goal of this course is to develop skills and techniques for creative problem solving. The course is for anyone interested in design, the development of new products and services, and strategies for change in organizations and society. It is useful wherever we face challenging situations that require imagination, new ideas, and innovative approaches in a rapidly changing world. At its core, creativity is an issue of perception. Learning to change one’s perception from what is known, comfortable, and familiar to what is unknown and potentially valuable and rewarding is the challenge of this course. We will explore a wide variety of methods, techniques, and tools for encouraging new perceptions. There will be useful readings, but also exercises and projects for individuals and teams to develop new strategies of creative thinking. Offered as DESN 302 and ENTP 302.

ENTP 308. Business Model Design and Innovation. 3 Units.
This course takes the perspective of entrepreneurs or business unit managers. The three basic questions that all entrepreneurs and entrepeneurs must answer is where to play, how to win and what to do. You have identified a group of customers for your product or service (where to play). Your first challenge is to know what features (Customer Attributes) your target customer will pay for. Innovative business models focus on a set of customer attributes that are usually very different from other industry incumbents that we call Focal Attributes. Your second challenge is to clearly state your profit logic -- how you will make money -- how to win. The concept called Profit Objectives (similar but not the same as KPI and/or SMART objectives) allow you to operationalize the profit logic through specific and measurable deliverables. Your third challenge is building the value chain that can deliver these focal attributes (what to do). At this point, you have a good understanding of all the elements of your business model and in particular, how the focal attributes and the value chain align with the profit objectives. You will learn how to illustrate this alignment through a mapping process. Offered as DESN 308 and ENTP 308. Prereq: Junior standing or higher.

ENTP 310. Entrepreneurial Finance. 3 Units.
This course explores the financing and financial management of entrepreneurial new ventures. The course will focus on issues of financial management of new ventures (forecasting cash flows, cash flow management, valuation, capital structure) and the various financial methods and mechanisms available to entrepreneurs (bootstrapping, angel investors, venture capitalists, IPOs). Offered as ENTP 310 and ECON 312.

ENTP 311. Entrepreneurship and Wealth Creation. 3 Units.
This course explores all aspects of the creation of a new venture from idea through startup, growth, and beyond. Students will learn how to evaluate opportunities, develop strategies, create a business plan and acquire financing for a new venture. In this course students will develop a business plan for a new venture.

ENTP 428. Entrepreneurship and Innovation. 3 Units.
In all companies, new and old, large and small, innovation and entrepreneurship are important ways economic value is created. Whether a person wants to found their own company or work in an existing one, and whether one wants to run a business or simply work in one, it is difficult to go through one’s career without needing to engage in innovation or entrepreneurship. The purpose of this course is to equip students to think about how to manage innovation and entrepreneurship. The course will provide frameworks and tools for understanding four important dimensions of innovation and entrepreneurship: (1) identifying and evaluating opportunities for the new products, processes, ways of organizing, materials, and markets; (2) assessing the needs of customers for new products and services and developing products and services that fulfill those needs; (3) creating strategies to financially benefit from investing in innovation and entrepreneurship; and (4) designing groups and organizations to be innovative and entrepreneurial.
The course will be delivered over four modules: 1) Service Process Blueprints, 2) Managing Capacity in Service Systems, 3) Mapping the Value Stream (current and future state), and 4) Inventory Management in Service Systems. The topics considered are viewed in the context of healthcare management, financial services, insurance firms, call centers, back-office operations, and other applications. Through these topics, the participants will be trained in tools that help them understand customers’ expectations and needs and to identify service system characteristics that can meet these needs. We will learn how to identify errors in service and troubleshoot these problems by identifying the root causes of errors. Subsequently, we will discuss how one can modify the product or service design so as to prevent defects from occurring. Finally, we will establish performance metrics that help evaluate the effectiveness of the Lean system in place. These efforts will result to improved quality.

This course is not oriented toward specialists in service management. Its goal is to introduce you to the environments and help you appreciate the problems that operations managers are confronted with. Then, we will typically discuss some system specifics and emphasize the principles and issues that play key role in their management. Offered as HSMC 412 and OPMT 412. Prereq: MSM Healthcare Students Only.

HSMC 420. Health Finance. 3 Units.
Exploration of economic, medical, financial and payment factors in the U.S. healthcare system sets the framework for the study of decisions by providers, insurers, and purchasers in this course. The mix of students from various programs and professions allows wide discussion from multiple viewpoints. Offered as BAFI 420 and HSMC 420. Prereq: (MBAP 402 or MBAC 502 or ACCT 401H) and for MSM Healthcare students only.

HSMC 421. Health Economics and Strategy. 3 Units.
The purpose of this course is to develop the analytical skills necessary for understanding how the U.S. health care sector operates, how it has evolved, the forces at work behind perceived deficiencies (in quality and cost control), and the impact of alternative policy proposals. Special attention is giving to recent developments in the healthcare marketplace, and the strategic considerations they create for providers and insurers. These issues are addressed through the lens of microeconomic theory. Under this framework, outcomes result from the interaction of decisions made by participants in the healthcare economy (e.g. patients, providers, insurers, government), with those decisions governed by the preferences, incentives and resource constraints facing each decision-maker. Principles of microeconomics will be reviewed as necessary to ensure consistent understanding of basic concepts. The course is designed to appeal to a broad audience, particularly students interested in healthcare management, public health, medical innovation, health law, and public policymaking. Offered as HSMC 421 and MPH 421.

HSMC 425. Dialogues in Health Care Management. 3 Units.
Dialogues in Healthcare Management is designed to serve students in the MSM-Healthcare management program. The course seeks to educate students of the intricacies related to specific management challenges that arise in the context of healthcare delivery. This is accomplished through a process of facilitated dialogs with experienced healthcare management professionals. Drawing on the experiences and deep contextual knowledge of these professionals, the course provides students an opportunity to synthesize and apply their prior coursework to better understand the challenges and opportunities that managers face to improve organizational performance. Prereq: MSM Healthcare Students only.

ENTP 501. Special Problems and Topics. 1 - 18 Units.

HSMC Courses

HSMC 404. Managing People and Organizations. 3 Units.
Examines the behavioral sciences relevant to the effective management of people and the effective design of human resources system, structure and policies. Topics include leadership, change management, motivation and pay systems, team dynamics, staffing, decision making, organizational communications, employee participation, performance appraisal, conflict management, negotiation, work design, organizational design, and organizations culture. A variety of methods, including experiential and interactive learning methods, are used to study these topics. Prereq: MSM Healthcare students only.

HSMC 407. Managerial Marketing. 3 Units.
Through lecture, discussion, cases, projects and/or simulations you will learn theory and practice of how firms develop processes to understand, create and deliver "triple bottom line" value (i.e., economic, social and environmental) to business and/or consumer markets. Specifically in this course, we take the perspective that marketing is a process of creating value for firms, customers, and other stakeholders through mutually desirable exchanges. This is the foundation of a customer orientation and a central theme of market-driven management. Methods for strategic marketing planning, understanding buyer behavior, market analysis, segmentation and devising integrated marketing programs are introduced. Prereq: MSM Healthcare students.

HSMC 411. Identifying Design Opportunities. 3 Units.
Designing is giving form to an idea for a more desirable product, service, process or organization, and refining the idea into something that can be delivered reliably and efficiently. Good design integrates these evolving ideas with the day-to-day realities of a firms’ operations, systems, marketing, economics, finance and human resources. Designing is thus a unique managerial activity that brings together changing technologies, capabilities, relationships, activities and materials to shape an organization's plans and strategies. It combines analysis and synthesis to create opportunities for improvement and means of attaining them. Viewed this way, designing is a core competence of a successful entrepreneur or innovative leader. Design analysis is the systematic review of the four orders of design found in every firm–namely, the firm’s communications, products, interactions and environments--and the creation of opportunities to increase firm value by improving each. Students will identify ill-defined, ill-structured problems within organizations. Such problems are ones for which there are no definitive formulations and for which the formulation chosen affects the solutions available. For such problems, there is no explicit way of knowing when you have reached a solution, and solutions cannot necessarily be considered correct or incorrect. But finding innovative solutions to such problems can provide unique opportunities to create exceptional value. A major outcome of the semester's inquiry is a presentation of the design problem and proposed design solution. Prereq: MSM Healthcare students.

HSMC 412. Lean Services Operations. 3 Units.
This course will be delivered over four modules: 1) Service Process Blueprints, 2) Managing Capacity in Service Systems, 3) Mapping the Value Stream (current and future state), and 4) Inventory Management in Service Systems. The topics considered are viewed in the context of healthcare management, financial services, insurance firms, call centers, back-office operations, and other applications. Through these topics, the participants will be trained in tools that help them understand customers’ expectations and needs and to identify service system characteristics that can meet these needs. We will learn how to identify errors in service and troubleshoot these problems by identifying the root causes of errors. Subsequently, we will discuss how one can modify the product or service design so as to prevent defects from occurring. Finally, we will establish performance metrics that help evaluate the effectiveness of the Lean system in place. These efforts will result to improved quality. This course is not oriented toward specialists in service management. Its goal is to introduce you to the environments and help you appreciate the problems that operations managers are confronted with. Then, we will typically discuss some system specifics and emphasize the principles and issues that play key role in their management. Offered as HSMC 412 and OPMT 412. Prereq: MSM Healthcare Students Only.

HSMC 420. Health Finance. 3 Units.
Exploration of economic, medical, financial and payment factors in the U.S. healthcare system sets the framework for the study of decisions by providers, insurers, and purchasers in this course. The mix of students from various programs and professions allows wide discussion from multiple viewpoints. Offered as BAFI 420 and HSMC 420. Prereq: (MBAP 402 or MBAC 502 or ACCT 401H) and for MSM Healthcare students only.

HSMC 421. Health Economics and Strategy. 3 Units.
The purpose of this course is to develop the analytical skills necessary for understanding how the U.S. health care sector operates, how it has evolved, the forces at work behind perceived deficiencies (in quality and cost control), and the impact of alternative policy proposals. Special attention is giving to recent developments in the healthcare marketplace, and the strategic considerations they create for providers and insurers. These issues are addressed through the lens of microeconomic theory. Under this framework, outcomes result from the interaction of decisions made by participants in the healthcare economy (e.g. patients, providers, insurers, government), with those decisions governed by the preferences, incentives and resource constraints facing each decision-maker. Principles of microeconomics will be reviewed as necessary to ensure consistent understanding of basic concepts. The course is designed to appeal to a broad audience, particularly students interested in healthcare management, public health, medical innovation, health law, and public policymaking. Offered as HSMC 421 and MPH 421.

HSMC 425. Dialogues in Health Care Management. 3 Units.
Dialogues in Healthcare Management is designed to serve students in the MSM-Healthcare management program. The course seeks to educate students of the intricacies related to specific management challenges that arise in the context of healthcare delivery. This is accomplished through a process of facilitated dialogs with experienced healthcare management professionals. Drawing on the experiences and deep contextual knowledge of these professionals, the course provides students an opportunity to synthesize and apply their prior coursework to better understand the challenges and opportunities that managers face to improve organizational performance. Prereq: MSM Healthcare Students only.
HSMC 432. Health Care Information Systems. 3 Units.
This course covers concepts, techniques and technologies for providing information systems to enhance the effectiveness and efficiency of health care organizations. Offered as HSMC 432 and MPH 532.

HSMC 446. Models of Health Care Systems. 1.5 Unit.
This course is for professionals who will pursue their careers in, or associated with, the health care industry; and therefore, need to understand the structure, operations and decision influences in the health care delivery system. The course is intended to develop competence and confidence in the participant’s ability to understand and operate in the industry, the largest and, perhaps, the most complex in the United States. It is applicable to the private and public, profit and not-for-profit sectors. In this course students are introduced to: the different systems of care delivery; their organization and operations; their markets and the nature of the demand for their services; and the dynamics of their interoperation among themselves and with other entities in the industry (e.g., payors/insurers, regulators and accreditors, technology and pharmaceuticals suppliers). Offered as HSMC 446 and IIME 446.

HSMC 447. Regulatory Affairs for the Biosciences. 1.5 Unit.
This mini-course introduces students to the Food and Drug Administration (FDA) and the laws and regulations it enforces. A scientific regulatory agency with far reaching enforcement authority, FDA is the most powerful consumer protection agency in the world. This course will familiarize students with FDA’s mission, philosophy and organizational structure, as well as policy and procedure it uses to ensure the safety and effectiveness of the food, drugs, biologics, cosmetics, medical devices and radiation-emitting products it regulates. Recommended preparation: Enrollment in the MEM Biomedical Entrepreneurship Track. Offered as BIOS 447, HSMC 447, and IIME 447.

HSMC 456. Health Policy and Management Decisions. 3 Units.
This seminar course combines broad health care policy issue analysis with study of the implications for specific management decisions in organizations. This course is intended as an applied, practical course where the policy context is made relevant to the individual manager. Offered as HSMC 456 and MPH 456.

HSMC 457. Health Decision Making & Analytics. 3 Units.
The goals of this course are to: (1) introduce the sources of data healthcare that managers can exploit to improve decision-making in their organizations; (2) examine health decision making styles, approaches and impediments; (3) provide a framework for medical informatics and how information technology can be exploited to pursue organizational goals; and (4) examine the analytic tools necessary for turning "raw data" into actionable information. The course is pragmatic, covering such issues as the current state and emerging trends in medical informatics (MI), information principles, decision models and analytics approaches, as well as the impact of emerging health legislation, information systems and processes on decisions and analytics. Prereq: MSM Healthcare students only.

HSMC 501. Special Problems and Topics. 1 - 18 Units.
This course is offered, with permission, to students undertaking reading in a field of special interest.

MBAC Courses
MBAC 502. Financial Accounting. 3 Units.
This course covers financial accounting: concepts, principles, and analyses. The major emphasis is development of an understanding of accounting information and reporting to enable you to be an effective manager. Although considerable importance is placed on the evaluation, interpretation, and analysis of accounting information for decision making: the fundamentals of accounting measurement and disclosure are also covered. Prereq: Full-time MBA program only.

MBAC 503. Managerial Accounting. 1.5 Unit.
This course focuses on managerial accounting. Upon completion of the course, students should be comfortable with the following: understanding the basics of commonly used costing methods, creating and analyzing a budget, analyzing departmental, divisional and corporate performance, using data to make business decisions using managerial accounting techniques, and understanding the basic concepts of management decision analysis and the related vocabulary. Specifically, the course helps provide some answers to the following questions: -How is management accounting information prepared and reported, and how can it be understood and analyzed? -How can the analysis of management accounting and other data help management better understand the drivers of the company's financial performance, the strengths and weaknesses of the company's operations and management, and the risks and opportunities facing it? -How can the analysis of financial and other management information enable management to make the best decisions to address the risks and opportunities of its operations? The goal of this class is to move you from simply "doing the work and forgetting it" to helping you gain knowledge and a basic skill set that you will be able to apply to real-life opportunities. Prereq: Full-time MBA program and (MBAP 402 or MBAC 502).

MBAC 504. Corporate Finance I. 3 Units.
This is a MBA core finance course. In this course, students are introduced to the basics of corporate finance, including the objectives of and the decisions made by corporate financial managers. Topics covered include time value of money, stock and bond valuation, cost of capital, risk and return, investment decision rules, cash flows and free cash flows, cash flow projections and planning, and capital budgeting. Other topics may be covered from time to time. Prereq: Full-time MBA program only.

MBAC 505. Corporate Finance II. 1.5 Unit.
This is an MBA core finance course. The objective of the course is to strengthen students' conceptual understanding and problem-solving skills in corporate finance. Topics covered include cash flows and valuation, financial planning and ratio analysis, financing using internal and external sources including public offerings, capital budgeting and managerial options, capital structure, payout policy, working capital management, and financial planning and strategy. Topics could change from semester to semester. The course envisages use of case studies, excel spreadsheets, and simulation exercises. Prereq: MBAC 504.
MBAC 506. Marketing Management. 3 Units.
Through lecture, discussion, cases, projects and/or simulations you will learn theory and practice of how firms develop processes to understand, create and deliver “triple bottom line” value (i.e., economic, social and environmental) to business and/or consumer markets. Specifically in this course, we take the perspective that marketing is a process of creating value for firms, customers, and other stakeholders through mutually desirable exchanges. This is the foundation of a customer orientation and a central theme of market-driven management. Methods for strategic marketing planning, understanding buyer behavior, market analysis, segmentation and devising integrated marketing programs are introduced. Prereq: Full-time MBA program only.

MBAC 507. Operations and Supply Chain Management. 3 Units.
Operations and supply chain managers, ranging from supervisors to vice presidents, are concerned with the production of goods and services. More specifically, they are responsible for designing, running, controlling and improving the systems to deliver their goods or services timely and efficiently. This course is a broad-spectrum course with emphasis on techniques and information that are helpful to the practice of management in general and at any level. Through lectures, case discussions, and experiential learning in simulations and educational games, we will discuss commonly occurring application problems such as bottleneck identification, capacity planning, inventory control, bullwhip effect, supply chain design, etc. We will examine operations and supply chain management in a variety of contexts including manufacturing systems, financial companies, hospitals, start-ups, and apparel industries. Also we will explore the interface of operations and supply chain management with other functional areas such as marketing, finance, accounting, etc. This course is not oriented toward specialists in operations and supply chain management. Its goal is to introduce you to the basic concepts, to develop your business intuition about operations and supply chain management, to help you understand the day-to-day challenges in this area, and to provide you with the tools to address these challenges. Prereq: Full-time MBA program only.

MBAC 508. Strategic Issues and Applications. 3 Units.
Strategic management deals fundamentally with the ways firms build and sustain superior competitive positions and profitability. Successful strategy design and implementation requires an understanding of a firm’s external environment, its internal resources and capabilities. It also requires an integrative view of the firm that spans functional areas such as operations, marketing and finance. Strategic analysis draws on a number of academic disciplines including economics, psychology, political and management science. Prereq: Full-time MBA program only.

MBAC 511. Statistics and Decision Modeling. 3 Units.
This course provides the foundations of statistical and operations research methodologies for managerial decision-making. Topics covered include using sample data to (a) estimate quantities of interest and create confidence intervals, (b) perform hypothesis tests, and (c) make forecasts with simple and multiple regression. Decision modeling involves using mathematical models to provide a quantitative approach to analyzing and solving complex decision problems and includes an introduction to linear and integer programming models and applications, queuing models, and simulation models, all solved by appropriate computer software packages. Prereq or Coreq: MBAP 400. Prereq: Full-time MBA program.

MBAC 512. Economics. 3 Units.
This course is designed to give you an overview and a basic understanding of modern economics. The course will cover the microeconomic topics of consumer choice, business decision making, and market equilibrium; as well as the macroeconomic topics of economic growth, inflation, interest rates, and exchange rates. In the process of achieving these specific content objectives, this course is taught in a way that will support the MBA program goals of having students become competent analysts and a critical, creative thinkers. Prereq: Full-time MBA program only.

MBAC 515. Leading People and Organizations. 3 Units.
The primary objective of this course is to develop students’ capability to be effective leaders and life-long learners. Drawing upon the field of organizational behavior, the course examines leadership effectiveness on three levels: developing the leader from the inside out, working effectively with diverse teams and leading effectively in organizations. Topics include resonant leadership, emotional intelligence, coaching relationships, team learning and development, employee engagement, diversity and inclusion and organizational culture. Students will work in diverse learning teams and complete a personal vision, receive 360-degree feedback on their emotional and social competence and create a personalized learning plan to guide their development throughout the MBA program and beyond. Leadership development coaches meet privately with each student twice throughout the semester and students become peer coaches for classmates. Fundamentally, this course is about developing the leader within so that each individual is best positioned to lead and manage others effectively. Prereq: Full-time MBA program only.

MBAC 518. Business Analytics. 3 Units.
Companies, government agencies, and nonprofit organizations can collect prodigious amounts of data with relative ease, but the data become insights only after they are organized, analyzed, and communicated. Substantial evidence exists to indicate that the demand for analytics trained managers outstrips current supply, and will continue to remain strong in the foreseeable future. Using analytics tools to use data to create insights is a prerequisite to effective management. Building on your first course in statistics, in this course you will be introduced to other useful analytical tools (e.g., Predictive Modeling, Data Mining, and Data Visualization). The course will also introduce commonly used software tools. Prereq: MBAC 511.
MBAP Courses

**MBAP 400. Probability, Statistics, and Quantitative Methods. 0 Unit.**
This course is the no-cost, online program that helps students acquire and/or refresh the following probability, statistics, mathematics, and computer skills that are essential for success in the MBA program. Topics include: - Statistics: Descriptive Statistics (summarizing and explaining data). Probability (modelling randomness and variability using probability ideas). Sampling (mean, standard deviation, and the role of the Central Limit Theorem). -Algebra and Math: a self-guided review is provided of functions and their graphical representations, linear equations, and exponentials and logarithms. -Computer Skills: the basic use of SPSS and EXCEL for statistical analysis. This course is designed for incoming MBA students who have not taken a formal course in probability and statistics, have taken such a course long ago and need to refresh this knowledge, or are not confident with basic probability, statistics and mathematics. This course is a required prerequisite for the first-year Statistics course. It is also assumed that you have the knowledge of the material in MBAP 400 for the core courses (especially Finance, Marketing, and Accounting) and is not reviewed in any of those courses. Recommended Preparation: Knowledge of high school mathematics and the basics of using EXCEL (such as writing formulas, copying cells and formulas, and so on). Prereq: Enrolled in the MBA Program.

**MBAP 401. Leadership Assessment and Development. 3 Units.**
This main objective of this course is to help students deepen their self-awareness and to prepare them to be effective leaders and lifelong learners. The course is based on a model of self-directed learning and development, which encourages students to discover and expand their emotional intelligence and leadership potential. Students are encouraged to reflect and learn through a series of activities, assessment exercises, and small and large group discussions. Students will complete a personal vision, receive 360-degree feedback on their emotional and social competence and create a personalized learning plan to guide their development throughout the MBA program. Leadership development coaches will meet with each student twice throughout the semester. Fundamentally, this course is about developing the leader within each person so that he or she can lead and manage others effectively. Prereq: This course is for students in the Part-time Cohort MBA Program.

**MBAP 402. Financial and Managerial Accounting. 3 Units.**
This course will cover the use and application of basic financial statements, the basic cost structures in a firm, and decision making using accounting information. We will discuss usage and analysis of information from the annual report, focusing on the balance sheet, income statement, cash flow statement and related notes. The course will also cover internally generated accounting information about the cost structure of the firm. We will discuss use of this information in decision making. You are expected to be comfortable with definitions of basic accounting terms, and you should be familiar with the accounting structure and the financial statements. Prereq: This course is for students in the Part-time Cohort MBA Program only.

**MBAP 403. Statistics and Decision Modeling. 3 Units.**
This course provides the foundations of statistical and operations research methodologies for managerial decision-making. Business statistics focuses on statistical thinking as one of the fundamentals of effective management. Topics covered include sampling and the normal distribution, making inferences from data via confidence intervals and hypothesis tests, and analyzing relationships between samples. Decision modeling of organizational systems uses mathematical and computer models to provide a quantitative perspective on identifying, analyzing and solving complex decision problems. This course includes an introduction to linear programming models and applications, simulation techniques in decision-making, and project management. Prereq: Students in the Part-time Cohort MBA Program and successful completion of MBAP 400.

**MBAP 404. Managing People and Organizations. 3 Units.**
Examines the behavioral sciences relevant to the effective management of people and the effective design of human resources systems, structure and policies. Topics include leadership, change management, motivation and pay systems, team dynamics, staffing, decision making, organizational communications, employee participation, performance appraisal, conflict management, negotiation, work design, organizational design, and organizations culture. A variety of methods, including experiential and interactive learning methods, are used to study these topics. Prereq: This course is for students in the Part-time Cohort MBA Program.

**MBAP 405. Financial Management I. 3 Units.**
This is a Corporate Finance course that deals with investment theory and financial value. The course materials cover discounted cash flows, bond and stock valuation, capital budgeting, applications of real options in investment analysis, asset's risk and return, cost of capital, market efficiency and capital structure. The tools, problem solving techniques, and ways of thinking that you develop in this course have broad applicability to all areas of business. They also form the basis for sensible personal decisions in the areas of investments, borrowing, and financial planning. Prereq: This course is for students in the Part-time Cohort MBA Program.

**MBAP 406. Economics for Managers. 3 Units.**
This course is designed to give you an overview and a basic understanding of modern economics. The course will cover the microeconomic topics of consumer choice, business decision making, and market equilibrium; as well as the macroeconomic topics of economic growth, inflation, interest rates, and exchange rates. In the process of achieving these specific content objectives, this course is taught in a way that will support the MBA program goals of having students become competent analysts and a critical, creative thinkers. Prereq: This course is for students in the Part-time Cohort MBA Program.

**MBAP 407. Managerial Marketing. 3 Units.**
Through lecture, discussion, cases, projects and/or simulations you will learn theory and practice of how firms develop processes to understand, create and deliver "triple bottom line" value (i.e., economic, social and environmental) to business and/or consumer markets. Specifically in this course, we take the perspective that marketing is a process of creating value for firms, customers, and other stakeholders through mutually desirable exchanges. This is the foundation of a customer orientation and a central theme of market-driven management. Methods for strategic marketing planning, understanding buyer behavior, market analysis, segmentation and devising integrated marketing programs are introduced. Prereq: This course is for students in the Part-time Cohort MBA Program.
MBAP 408. Operations Management. 3 Units.
Operations management deals with the design of products and processes, the acquisition of resources, the conversion of inputs to outputs, and the distribution of goods and services. It is central to a firm's ability to compete effectively. As global competition in both goods and services increases, the management of operations is becoming more and more important. This course provides a broad overview of the managerial issues associated with production and delivery of goods and services. It includes the use of quantitative modeling using computers as a central methodology. Prereq: This course is for students in the Part-time Cohort MBA Program.

MBAP 409. Sustainability and Social Entrepreneurship. 3 Units.
This course creates a foundational platform featuring key models and managerial tools for building sustainable value and "turning the social and global issues of our day into business opportunities." Case studies of leading mainstream companies are used to analyze how business value is created for a range of social and environmental initiatives. Students will look at sustainability business strategies that reduce risks, drive down costs, create new revenue streams, serve new markets, and position companies to take advantage of changing societal expectations. Environmental issues such as climate change are covered along with social issues such as global poverty. Students acquire the competencies required to make effective business decisions based on integrating sustainability into the core of a company's value added activities. Prereq: This course is for students in the Part-time Cohort MBA Program.

MBAP 410. Strategic Issues and Applications. 3 Units.
This course helps students understand the nature of strategic competitiveness and helps them develop the ability to analyze the competitive environment facing any organization, assess the attractiveness of the industry or sector and isolate potential sources of competitive advantage which will aid in developing a positioning strategy for the organization.

MBAP 411. Identifying Design Opportunities. 3 Units.
Designing is giving form to an idea for a more desirable product, service, process or organization, and refining the idea into something that can be delivered reliably and efficiently. Good design integrates these evolving ideas with the day-to-day realities of a firm's operations, systems, marketing, economics, finance and human resources. Designing is thus a unique managerial activity that brings together changing technologies, capabilities, relationships, activities and materials to shape an organization's plans and strategies. It combines analysis and synthesis to create opportunities for improvement and means of attaining them. Viewed this way, designing is a core competence of a successful entrepreneur or innovative leader. Design analysis is the systematic review of the four orders of design found in every firm—namely, the firm's communications, products, interactions and environments—and the creation of opportunities to increase firm value by improving each. Students will identify ill-defined, ill-structured problems within organizations. Such problems are ones for which there are no definitive formulations and for which the formulation chosen affects the solutions available. For such problems, there is no explicit way of knowing when you have reached a solution, and solutions cannot necessarily be considered correct or incorrect. But finding innovative solutions to such problems can provide unique opportunities to create exceptional value. A major outcome of the semester's inquiry is a presentation of the design problem and proposed design solution. Prereq: This course is for students in the Part-time Cohort MBA Program.

MBAP Courses

MGMT 1. Supervised Professional Practicum - Semester 1. 0 Unit.
A professional practicum is a workplace experience, the primary goal of which is the intellectual, personal and professional growth of the student. It occurs under the sponsorship or supervision of a mentor in the workplace who is committed to seeing that it is an educational as well as a work venture. It requires skills appropriate to the student's year in college and provides students with new skills, insights and experiences that are transferable back to the academic setting and/or to a future position in the workplace. (Only available to declared Weatherhead Accounting or Management majors.) Prereq: Junior standing or higher.

MGMT 2. Supervised Professional Practicum - Semester 2. 0 Unit.
A professional practicum is a workplace experience, the primary goal of which is the intellectual, personal and professional growth of the student. It occurs under the sponsorship or supervision of a mentor in the workplace who is committed to seeing that it is an educational as well as a work venture. It requires skills appropriate to the student's year in college and provides students with new skills, insights and experiences that are transferable back to the academic setting and/or to a future position in the workplace. (Only available to declared Weatherhead Accounting or Management majors.) Prereq: Junior standing.

MGMT 201. Contemporary Business and Communication. 3 Units.
This course is designed to survey business topics, issues, and practices. Students will be introduced to each of the functional areas of business, including accounting, finance, marketing, operations, business intelligence, and human resources management. The course is designed to help students appreciate the interrelationship of these business functions and, more generally, the role and context of business in society. Other topics considered include: the economic and legal environment of business, the globalization of markets, workforce diversity, leadership and entrepreneurship. To convey course content, lectures, in-class discussions, exercises, simulations, and guest speakers are used. Weekly discussions and a high level of student interaction amplify the class materials and concepts by focusing on contemporary issues of actual businesses.

MGMT 205. Essentials of Personal Finance. 1 Unit.
This course will provide students of all disciplines with an essential foundation in personal finance. The course will focus on four core areas of personal finance: 1) Budgeting & saving, 2) Investing, 3) Obtaining credit & controlling debt, and 4) Minimizing financial risk through the use of insurance. The course will also cover the essentials of personal taxation, retirement planning, and estate planning. This course will enable students to gain the fundamental knowledge and skills needed to make wise financial decisions as they move forward in life, which in turn will impact their ability to function as productive leaders in the workplace and financially literate citizens. A student may not receive credit for both MGMT 205 and MGMT 395 with the topic "Achieving Personal Financial Security." Prereq: Sophomore standing or higher.
MGMT 206. Personal Financial Management with Digital Technology. 1 Unit.
In the digital era, financial technologies have worked its way into our digital wallets and portfolio. Mobile banking services, budgeting and investing apps are inextricably linked with how we conduct our personal finances. While financial literacy deals with underlying finance concepts such as time value of money, compounding, budgeting and investing, financial technologies dictate how we access tools to carry out day-to-day budgeting, investing and consuming. In the digital era, financial technologies, FinTech, serves as an enabler of financial literacy, FinLit. While technology is not a substitute for literacy, FinTech complements literacy. Technology has created a level playing field and has advanced the access to credit and investments. This course will cover four areas: 1. Comparing banking services and costs 2. Digital banking: Using mobile apps and financial technologies for financial management and decision making 3. Personal finance and digital money 4. Risks in the digital era: Identity protection Offered as BAFI 206 and MGMT 206. Prereq: Sophomore standing or higher.

MGMT 315. International Management Institute. 3 Units.
The course provides undergraduate students with a unique overseas visitation, language orientation, and management subject experiences during periods such as Spring Break, or during interims immediately following the end of the semester. Opportunities for diverse cultural and language experiences which result from the institute are added benefits of these programs.

MGMT 360. Special Topics and Issues in Management. 1 - 9 Units.
This course option is available to qualified students who are undertaking special projects in a management related field.

MGMT 361. Managing in a Global Economy. 3 Units.
Managers need new skills to enable them to manage effectively in what is increasingly a global economy. They need a deeper understanding of cultural differences and how these differences may influence communications with foreign employers, employees, customers, suppliers or partners. They need a better understanding of the economic and political mechanics of the world business system. They need to learn how to find out more about potential opportunities and threats that lie outside the United States. This course is designed to address these needs. Offered as MGMT 361 and MGMT 460.

MGMT 395. Advanced Seminar. 1 Unit.
This seminar, for undergraduate students with junior class standing or above, provides an opportunity to consider topics of importance in the community of ideas and activities related to the professional and managerial world. The development of writing and communication skills and in-depth discussion are expected attributes of seminar activity. The topic and scope of the coverage will be defined by the course instructor as consistent with the seminar approach to learning of the University. Counts as SAGES Departmental Seminar. Prereq: Declared ACCT or MGMT Major and At Least Junior Standing.

MGMT 397. Undergraduate Research Project. 3 - 6 Units.
This course provides a supervisory structure for students completing and a capstone research project in the Weatherhead School of Management. Arrangements should be made by consultation with a faculty member selected and the Senior Capstone Committee of the School of Management. Open to all management and accounting majors and other qualified students with instructor approval. A written report, presentation to the faculty department most closely related to the student’s topic, and an approved public presentation are required. Counts as SAGES Senior Capstone.

MGMT 398. Action Learning. 6 Units.
This is an experiential course built around consulting projects in local organizations. Each project is focused on solving a business problem or pursuing a business opportunity. Each student will work in a team to analyze the current situation and identify related problems/opportunities, conduct research, analyze findings, creatively envision alternatives, and recommend an appropriate course of action and next steps. Throughout the semester students will receive instruction and coaching on the problem solving approach used in the course. Counts as SAGES Senior Capstone. Prereq: (ACCT 100 or ACCT 102) and BAFI 355 and MKMR 201 and Senior standing with a declared Accounting or Management major.

MGMT 418. Curricular Practical Training. 0 Unit.
This course is intended for graduate business students who wish to gain curricular practical training in support of career goals. The experience developed in an internship will complement academic experience gained in Weatherhead classes.

MGMT 456. Beyond Silicon Valley: Growing Entrepreneurship in Transitioning Economies. 3 Units.
The path for entrepreneurs to grow their companies outside of well-developed entrepreneurial ecosystems like Silicon Valley is challenging. Most markets around the world do not look like Silicon Valley, and they never will. But there are other models to support new businesses. In transitioning markets (where entrepreneurs do not have much access to private sector financing), government officials, donors, and business leaders are experimenting with creative approaches to support the growth of entrepreneurs. Cleveland is one such community. This seminar will explore some of these innovative approaches.

MGMT 458. International Institute. 3 Units.
The International Institute involves semester-long study of a particular region, followed by a class trip to an area within that region. The preparatory coursework varies depending on the region selected for that particular semester; however, it typically consists of research about cultural, financial, political, and economic topics. The trip consists of daily research meeting with organizations within the region being studied. Upon return, a summary exercise is required to complete the coursework. The class trip is a mandatory component of the course.

MGMT 460. Managing in a Global Economy. 3 Units.
Managers need new skills to enable them to manage effectively in what is increasingly a global economy. They need a deeper understanding of cultural differences and how these differences may influence communications with foreign employers, employees, customers, suppliers or partners. They need a better understanding of the economic and political mechanics of the world business system. They need to learn how to find out more about potential opportunities and threats that lie outside the United States. This course is designed to address these needs. Offered as MGMT 361 and MGMT 460.

MGMT 464. Business Ethics. 3 Units.
This course is built around two core learning tracks. The first is an extended analyses of case studies, which identifies ethical problems, diagnoses import, and develops strategic programs to address them. The second learning track uses short pieces of fiction to explore issues of ethical character, leadership, and organizational responsibility. Each student keeps an ethics journal over the course of the semester to reflect on ethical issues, both inside and outside the classroom. In addition, small student groups are formed to write case studies focusing on a business ethics problem.
MGMT 465. Perspectives in European Management. 3 Units.
The European Institute provides an introduction to international business through a unique combination of class meetings and an excursion to Europe. While in Europe, students meet with local business people, consulate officials, and university professors to learn the prerequisites for doing business in the region. The trip features site visits to local companies.

MGMT 467. Commercialization and Intellectual Property Management. 3 Units.
This interdisciplinary course covers a variety of topics, including principles of intellectual property and intellectual property management, business strategies and modeling relevant to the creation of start-up companies and exploitation of IP rights as they relate to biomedical-related inventions. The goal of this course is to address issues relating to the commercialization of biomedical-related inventions by exposing law students, MBA students, and Ph.D. candidates (in genetics and proteomics) to the challenges and opportunities encountered when attempting to develop biomedical intellectual property from the point of early discovery to the clinic and market. Specifically, this course seeks to provide students with the ability to value a given technological advance or invention holistically, focusing on issues that extend beyond scientific efficacy and include patient and practitioner value propositions, legal and intellectual property protection, business modeling, potential market impacts, market competition, and ethical, social, and healthcare practitioner acceptance. During this course, law students, MBA students, and Ph.D. candidates in genomics and proteomics will work in teams of five (two law students, two MBA students and one Ph.D. candidate), focusing on issues of commercialization and IP management of biomedical-related inventions. The instructors will be drawn from the law school, business school, and technology-transfer office. Please visit the following website for more information: fusioninnovate.com. Offered as LAWS 5341, MGMT 467, GENE 467, EBME 467 and ECSE 467.

MGMT 495. AMES Business Model. 3 Units.
AMES BUSINESS MODELS is an experiential course designed to explore the challenges that face entrepreneurs and established organizations as they develop new business models. Throughout the course we will address four general questions regarding business models: What are the key elements of any business model? How do those elements work in concert to create value? What challenges do innovators face as they explore new business models? What tools and techniques help innovators reduce their risk and enable growth? At the end of this course students should be able to: Describe the essential elements of a business model and how that model is meant to create value. Assess the potential of any business model and the key assumptions upon which it is built. Design and execute experiments to efficiently validate (or invalidate) those assumptions. Whether students plan to join an existing organization or start their own, these tools will provide a foundation for creating innovative, sustainable businesses. This course will focus Entrepreneurship (creating and testing new business models within an established organization).

MGMT 497. Action Learning Project. 3 Units.
This course allows teams of students to integrate functional, core knowledge and apply analysis and strategic management skills in a real-world setting. Students will be evaluated by the instructor and the project managers at the client organizations. Prereq: Part-time Cohort MBA Students and MSM Healthcare Integrated students only.

MGMT 500. Qualitative Methods for Business. 1 Unit.
This course is offered online and helps students acquire and/or refresh the following probability, statistics, mathematics, and computer skills that are essential for success in the MBA program. Topics include: - Statistics: Descriptive Statistics (summarizing and explaining data). Probability (modelling randomness and variability using probability ideas). Sampling (mean, standard deviation, and the role of the Central Limit Theorem). -Algebra and Math: a self-guided review is provided of functions and their graphical representations, linear equations, and exponentials and logarithms. -Computer Skills: the basic use of SPSS and EXCEL for statistical analysis. This course is designed for non-MBA/non-WOSM students who have not taken a formal course in probability and statistics, have taken such a course long ago and need to refresh this knowledge, or are not confident with basic probability, statistics and mathematics. Recommended Preparation: Knowledge of high school mathematics and the basics of using EXCEL (such as writing formulas, copying cells and formulas, and so on).

MGMT 501. Special Problems and Topics. 1 - 18 Units.
This course is offered, with permission, to students undertaking reading in a field of special interest.

MGMT 502. Independent Study. 1 - 18 Units.
This course is offered, with Dean's Office permission, to students undertaking reading in a field of special interest.

MGMT 560. Theoretical Perspectives in Management. 3 Units.
This seminar exposes students to management theories from a variety of disciplines. The goal of the course is to help students learn to synthesize and contrast theories to develop hypotheses of their own. Prereq: Ph.D. standing or consent of instructor.

MGMT 571. Measurement Theory and Method. 3 Units.
This doctoral seminar focuses on the theoretical and methodological issues involved in social science measurement. Specifically, the course will cover topics in basic principles of measurement including Classical Test Theory, Reliability, Validity, and Item Response Theory, as well as related tools for measurement analysis including Exploratory and Confirmatory Factor analysis. In addition, the course will expose students to analytical methods that model measurement error in simultaneous equations including models with mediation and moderation effects. This course involves extensive use of statistical packages including SPSS, LISREL, and EQS. Prereq: Ph.D. standing.

MGMT 573. Applied Multivariate Data Analysis. 3 Units.
The objectives of the seminar are to provide students with an understanding of the substantive and methodological issues involved in applied multivariate data analysis. The seminar aims to expose students to the assumptions, principles and applications of a selected set of multivariate techniques including Logistic Regression, MANOVA/ Discriminant, Profile, Multilevel and Latent Growth Model analysis. This course involves extensive use of statistical packages including SPSS, LISREL, and EQS. Prereq: Ph.D. standing.

MGMT 602. Advanced Topics. 1 - 18 Units.
This is a course of flexible design to meet advanced theoretical and/or methodological needs of doctoral students. Approval is needed from the instructor, and it requires a letter grade.

MGMT 610. Culture and World Politics. 3 Units.
Religion, ethnicity, and nationalism have assumed major political significance in the post Cold-War and post-9/11 eras. The course examines ideas of political democracy and economic liberalism in relation to different cultural and religious ideas and explores relationships among social values, political structures, and economics. Prereq: Must be enrolled in Ph.D in Management: Designing Sustainable Systems track.
MGMT 611. Theory and Practice of Collective Action. 3 Units.
The ability of autonomous and interdependent parties to coordinate actions, or to act cooperatively, affects a wide range of organizational and social problems. This course addresses the theory and practice of collective action in local, national and global contexts. Case studies of collective action problems, such as environmental protection, community revitalization, and the mobilization of interest groups will be discussed. Prereq: Must be enrolled in Ph.D in Management: Designing Systems track.

MGMT 616. Global Economic Systems and Issues. 3 Units.
This course provides a framework and analytical tools for understanding globalization and international economic relations in the context of the global political system. It analyzes the economic and political forces that are shaping global cooperation on economic matters, the role and impact of international economic institutions such as the World Bank, the International Monetary Fund, and the World Trade Organization, and evolving forms of regional governance, such as the European Union. It covers national and international policies and development and the causes and cures of international financial crises. The course revolves around concepts of efficiency, equality, power and institutions in the making of public policy towards globalization of communications and transportation. Prereq: Must be enrolled in Ph.D in Management: Designing Systems track.

MGMT 617. Technology and Social System Design. 3 Units.
This course explores the process of design to become a better designer and interventionist who anticipates and evaluates the social, economic, and political consequences of existing and emerging products, processes, and organizational forms. Prereq: Must be enrolled in PhD in Management: Designing System Systems track.

MGMT 643. Measuring Bus Behav & Struc. 3 Units.
This course aims to develop the basic foundations and skills for designing and executing generalizable studies that measure business behaviors and structures. It focuses on building competence in building of measurement systems, construct measurement, research design, data collection methodologies, and application of analytical software commonly involved in quantitative inquiry. Covered topics include framing research questions, reliability and validity of measurement, quasi-experimental research design, and fieldwork for data collection. Classes are designed to balance theory and practice through quantitative research design and will be linked to the participant’s own research project. Prereq: Must be enrolled in Ph.D in Management: Designing Sustainable Systems track.

MGMT 645. Integration of Qualitative and Quantitative Inquiry. 3 Units.
Using the mixed method research toolkit developed in previous courses, this course focuses on critically analyzing selected pieces of published applied and policy research to develop a critical appreciation of issues and debates that have wide applicability and relevance. In particular, it offers students ways to integrate and triangulate using a mixed method approach, different forms of evidence, and related evidence. In addition, this course addresses common method choice and justification issues and related challenges of validity and theory formulation that typically arise during the students’ execution of a series of individual research projects. Application of critical analysis and appreciation approach in justifying mixed methods designs to the student’s own research work is encouraged and supported by sharing and discussing common research methodology themes and problems. Prereq: Must be enrolled in Ph.D in Management: Designing Sustainable Systems track.

MGMT 646. Advanced Analytical Methods for Generalizing Research. 3 Units.
This course addresses advanced topics in regression and structural equation modeling such as latent growth curve models, partial least squares, logit models, tests for various types of invariance, multiple-group analysis, multilevel analysis, and analyzing qualitative/categorical data. These analytical methods are intended to enhance the student’s toolkit as to facilitate a strong bridge to the academic literature and the application to specific data based problems that arise in applied managerial research. Prereq: Must be enrolled in Ph.D in Management: Designing Sustainable Systems track.

MGMT 648. Causal Analy of Bus Prob I. 3 Units.
Causal Analysis of Business Problems I introduces fundamental concepts in theory-based model building and validation. In this course students will develop, explore, refine a range of models appropriate for addressing their problem of practice including classification models, process models, variance models, and articulating nomological networks. In particular, the course will focus on effective conceptualizations of causation, control, mediation, and moderation. Further, foundational statistical techniques such as tests of assumptions of the data, exploratory factor analysis, and regression and path analysis will be introduced to analyze concepts of causation, control, mediation and moderation. Prereq: Only for students in PhD in Management: Designing Sustainable Systems, or by permission of the Program Director.
MGMT 664. Knowledge Dissemination to Influence Managerial Practice. 3 Units.
The aim of this course is twofold. First, it supports students organizing and writing their DM thesis overview or their PhD thesis proposal. Also discussed are ways to organize and communicate in scientific genres, their aims and their generic properties. Secondly, students become acquainted with scientific communication and publishing. Effective reviewing, criteria for judging articles and theses, management of review processes, and how to communicate and respond to reviews are topics discussed. The course also addresses communication and ways of managing and communicating scientific and managerial knowledge to different stakeholders. Prereq: Must be enrolled in Ph.D in Management: Designing Sustainable Systems track.

MGMT 672. Flourishing Enterprise: Creating Sustainable Value for Business and World Benefit. 3 Units.
This course is designed to galvanize new visions of business and society, as well as organizational leadership. The course is born of a conviction that the future of human society and the natural world is intimately linked to the future of the world economy, business enterprises, and management education. The course presentations, books, dialogues, and interview projects are organized around three themes: (1) the state of the world and the economics possibilities of our time, (2) the business case for understanding business as an agent of world benefit--how business performance can profit from current and future advances in sustainable design and social entrepreneurship; and (3) tools for becoming a change leader--including the methods of Appreciative Inquiry and new insights about "strength-based" change emerging from the science of human strengths. The overarching aim is to provide a powerful introduction to the many facets of sustainable value creation as a complete managerial approach. Prereq: Must be a student in the PhD in Management: Designing Sustainable Systems track.

MGMT 664. Knowledge Dissemination to Influence Managerial Practice. 3 Units.
The aim of this course is twofold. First, it supports students organizing and writing their DM thesis overview or their PhD thesis proposal. Also discussed are ways to organize and communicate in scientific genres, their aims and their generic properties. Secondly, students become acquainted with scientific communication and publishing. Effective reviewing, criteria for judging articles and theses, management of review processes, and how to communicate and respond to reviews are topics discussed. The course also addresses communication and ways of managing and communicating scientific and managerial knowledge to different stakeholders. Prereq: Must be enrolled in Ph.D in Management: Designing Sustainable Systems track.

MGMT 677. Designing Sustainable Systems. 3 Units.
Students in teams will recognize and work in practice on a managerial problem that involves dimensions of sustainability and design. They will develop a set of solutions to the problem by generating alternative models and intervention strategies to address the problem. The project results in a short presentation and written communication of the solution in a form of a poster or prototype. The course will also include presentations of intervention and action research approaches and issues of inquiry validation and theory development. Prereq: Only for students in PhD in Management: Designing Sustainable Systems.

MGMT 701. Dissertation Ph.D.. 1 - 9 Units.
(Credit as arranged.) Prereq: Must be enrolled in Ph.D in Management: Designing Sustainable Systems and have predoctoral research consent or advanced to Ph.D. candidacy milestone.

MIDS Course
MIDS 301. Introduction to Information: A Systems and Design Approach. 3 Units.
This course is an introduction to the concept of information and the uses of information in organizations and social life. The course is for anyone who is interested in the evolution of digital culture and the influence of design, systems, and management in contemporary life. This will involve readings from a variety of disciplines, including mathematics, the social sciences, management and the humanities. We live in an "information ecology": a system of human activities served by a variety of technologies that are often grounded in local environments and with deep ethical implications. The goal of our course is to understand this system and how information has become a medium of human experience in our lives. There will be useful readings, but also exercises and projects that enable students to test and develop their understanding.

MKMR Courses
MKMR 201. Marketing Management. 3 Units.
This is an introductory marketing course designed to provide students with the concepts and theories necessary for understanding the fundamental principles of marketing and its role in any organization. Students will learn concepts such as marketing orientation, marketing-mix, relationship marketing and service logic, as well as behavioral theories of customer response and strategic frameworks of customer brand management. Students develop capabilities for understanding marketing issues in real world situations and to create and implement basic marketing plans. Prereq: At least Sophomore standing.

MKMR 304. Brand Management. 3 Units.
Successful innovation and management of brands and products creates customer, firm, and societal value. This course is designed to help students understand the principles of product and brand development and management such as understanding evolving customer needs; creating and delivering the right products, services, and experiences; and managing the process to enhance brand equity and customer satisfaction. Through text, cases, and simulation this engaging class will cover the branding process from new brand and product development; brand communication and promotion, and brand equity measurement. The course will also discuss specific topics such as global brands, brand extensions, brand revitalization, and social responsibility. Prereq: ECON 102 and MKMR 201 and (ACCT 100 or ACCT 102).

MKMR 308. Measuring Marketing Performance. 3 Units.
Evaluation and control are important strategic marketing processes and without effective and consistent measurement, these processes cannot be performed adequately. In recent years, marketing budgets have been challenged by top managers as the value of these expenditures to an organization's financial well being is not often clear. Marketing activities such as advertising, sales promotions, sales force allocation, new product development, and pricing all involve upfront investments and making these investments now require increasing scrutiny. This course will be about knowing and understanding what to measure, how to measure, and how to report it so the link between marketing tactics and financial outcomes is clearer. The course will include lecture by the instructor, readings, cases, computer based data exercises, and guest lectures. There will also be a team project requirement. Prereq: (ACCT 100 or ACCT 101) and ECON 102 and MKMR 201.
MKMR 310. Marketing Analytics. 3 Units.
To appreciate, design, and implement data-based marketing studies for extracting valid and useful insights for managerial action that yield attractive ROI, five essential processes are emphasized: (a) making observations about customers, competitors, and markets, (b) recognizing, formulating, and refining meaningful problems as opportunities for managerial action, (c) developing and specifying testable models of marketing phenomenon, (d) designing and implementing research designs for valid data, and (e) rigorous analysis for uncovering and testing patterns and mechanisms from marketing data. Prereq: MKMR 201 and OPRE 207.

MKMR 311. Customer Relationship Management. 3 Units.
Customer Relationship Management (CRM) is the strategic process of building and maintaining profitable, sustainable customer relationships through co-creation of value with customers in both business-to-business (B2B) and business-to-consumer (B2C) markets. This course starts with understanding the relationship between an organization’s strategic goals and the structure and dynamics of organization-customer relationships. Topics include assessing CRM system design, implementation and management; the fundamentals of customer profitability analysis; customer portfolio management; B2B relationship management; sales force management and automation; and designing services programs to optimize customer experiences; and expanding customer relationships through services. Additionally, students will explore how one-to-one marketing and social networks enhance customer relationships. Learning will be accomplished through lecture and discussion, critical discussion of case studies and contemporary marketing issues, and interaction with experienced CRM marketing professionals. Prereq: MKMR 201.

MKMR 312. Selling and Sales Management. 3 Units.
Selling and sales management are keys to implementing an organization's marketing program and customer relationships. This course emphasizes developing an understanding of basic marketing concepts, selling principles, interrelationships among sales force management and other business functions, appropriate strategy for managing a sales force and measurement of sales force productivity. We will use theories of work motivation and explore how individual difference variables influence the choices of sales managers. This course uses a synthesis of sales research and leading practices to focus on both a strategic and a tactical perspective. Strategic issues include: entrepreneurial strategy, the sales force's role in company strategy, customer relationship and strategic account management, sales force size and organization and career paths to sales management. Tactical issues include: effective approaches to selling, finding and retaining top sales talent, motivating and compensating the field force, evaluating performance, and aligning sales territories. Prereq: MKMR 201.

MKMR 348. Strategic Internet Marketing. 3 Units.
This course aims to prepare business students to think strategically and make effective marketing decisions in networked business environments. Given the increasing strategic significance of the internet across a broad spectrum of industries, it is imperative that business students develop a deep understanding of the emerging digital marketplace. The course will focus on the following topics: The emerging digital world; individuals and firms online; network technologies; business models on the internet; online branding; customer relationship management and loyalty in electronic markets; internet's impact on innovation and product management; online retailing; business-to-business e-commerce; multi-channel management; sustainable competitive advantage in the digital marketplace; legal, ethical, and public policy issues related to digital technologies; organizing for online marketing. Prereq: MKMR 201.

MKMR 360. Independent Study. 1 - 3 Units.
This course is offered, with permission, to students undertaking reading and research in an area of their special interest.

MKMR 405. Business Marketing. 3 Units.
This course focuses on concepts and practices of business-to-business marketing of products and services. It also examines how rapid technological change impacts industrial markets. Topics covered include: buyer-seller relationship building, competitive bidding, developing markets for new materials and value-based pricing strategies. Marketing to the government, marketing of intellectual property and marketing-R&D-manufacturing interface issues will also be explored. Prereq: MBAP 407 or MBA 506 or HSMC 407.

MKMR 408. Marketing Metrics. 3 Units.
Evaluation and control are important strategic marketing processes and without effective and consistent measurement, these processes cannot be performed adequately. In recent years, marketing budgets have been challenged by top managers as the value of these expenditures to an organization's financial well being is not often clear. Marketing activities such as advertising, sales promotions, sales force allocation, new product development and pricing all involve up-front investments and making these investments now require increasing scrutiny. This course will be about knowing and understanding what to measure, how to measure and how to report it so the link between marketing tactics and financial outcomes is clearer. The course will include lecture by the instructor, readings (no textbook), cases, and guest lectures. There will also be a team project requirement. Prereq: MBAC 506, MBA 407 or HSMC 407.

MKMR 411. Customer Relationship Management. 3 Units.
Customer Relationship Management (CRM) is the strategic process of building and maintaining profitable customer relationships through co-creation of value with customers. This course starts with understanding the relationship between an organization's strategic goals and customer relationships, including assessing CRM systems, management and implementation, in both B2B and B2C markets. Students will learn the fundamentals of customer profitability analysis, customer portfolio management, B2B relationship/sales force management and automation, designing services to optimize customer experiences, and expanding customer relationships through services. Additionally, students will explore how one-to-one marketing and social networks enhance customer relationships. Learning will be accomplished through critical discussion of case studies and contemporary marketing issues, and interaction with experienced CRM marketing professionals. Prereq: MBA 506 or MBA 407.

MKMR 412. E-Marketing. 3 Units.
Using a combination of lectures, cases, and hands-on projects, the course examines how the Internet influences all the key aspects of marketing, including marketing strategy, pricing, advertising, segmentation, marketing research, retailing, distribution channels, and international marketing. Additionally, the course will cover more Internet specific topics such as privacy, wireless web, sales force automation, and e-commerce models. The course incorporates both business-to-business and business-to-consumer outlooks. Prereq: MBA 506 or MBA 407.
MKMR 421. Marketing Value Creation. 3 Units.
Marketing value creation is the process of creating and managing successful brands through continuous innovation. Successful brand innovation and management requires understanding evolving customer needs; creating and delivering the right products, services, and experiences; and managing the process to enhance brand equity and customer satisfaction. Through text, readings, cases, high-profile guest lectures and team projects, this engaging class will cover the innovation and branding process from discovery of unmet needs, brand and product development, to brand promotion and advertising and brand equity measurement. A sustainability thread will weave through the course, covering topics such as brand’s ecological footprint, product safety, eco-friendly branding, the ethics of advertising, the impact of pricing on consumers and corporate social responsibility. The result of proper sensitivity to customer needs, social concerns and the environment is integral to the process of value creation for customers, companies and society. Prereq: MBAC 506 or MBAP 407.

MKMR 501. Special Problems and Topics. 1 - 18 Units.
This course is offered, with permission, to students undertaking reading or a project in a field of special interest.

MPOD Courses

MPOD 413. Foundations of Positive Organization Development and Change. 3 Units.
This course explores and develops the art of reading and understanding social systems in ways that help us imagine, design and develop organization excellence. First it seeks to show how many of our conventional ideas about organizations are based on discourse and metaphors that lead us to see and understand organizations in partial and often limiting ways. Growing research from the domains of Positive Psychology and Positive Organization Scholarship and the theory and practice of Appreciative Inquiry will be explored to show how we can create new and more positive, strength-based ways of designing and developing social systems. Includes presentations, guest lectures and panel discussions on current topics of interest for the Masters in Positive Organization Development and Change (MPOD) candidates. Led by a faculty member of the Department of Organization Behavior, these dialogues and seminars will be presented in several of the six main residencies of the MPOD program. Reflective essays and integrative papers will enable participants to explore their practice of OD, leadership capacity, application of learnings from the program and deeply held values related to current issues and opportunities in the domain of human systems change and development. Prereq: Open to MPOD candidates only.

MPOD 413B. Foundations of Positive Organization Development and Change. 1 Unit.
This course explores and develops the art of reading and understanding social systems in ways that help us imagine, design and develop organization excellence. First it seeks to show how many of our conventional ideas about organizations are based on discourse and metaphors that lead us to see and understand organizations in partial and often limiting ways. Growing research from the domains of Positive Psychology and Positive Organization Scholarship and the theory and practice of Appreciative Inquiry will be explored to show how we can create new and more positive, strength-based ways of designing and developing social systems. Includes presentations, guest lectures and panel discussions on current topics of interest for the Masters in Positive Organization Development and Change (MPOD) candidates. Led by a faculty member of the Department of Organization Behavior, these dialogues and seminars will be presented in several of the six main residencies of the MPOD program. Reflective essays and integrative papers will enable participants to explore their practice of OD, leadership capacity, application of learnings from the program and deeply held values related to current issues and opportunities in the domain of human systems change and development. Part Two of Two. Prereq: MPOD 413A.

MPOD 414. Organization Design for a Knowledge World. 3 Units.
The objective of this course is to familiarize participants with the theory and technique of organization design and corporate change with particular emphasis on helping leaders understand and implement the latest forms of organizing in a customer-focused, electronically mediated and knowledge-driven world. Frameworks presented will be used to explore the impact of the information revolution on organization design and change, and the evolution of traditional vertically integrated and multi-divisional enterprises toward spider web structures, trans-organizational networks and communities of practice. Prereq: Open to MPOD candidates only.

MPOD 416A. Leadership, Executive Assessment and Development. 2 Units.
Leadership with emotional intelligence will be examined by studying a number of topics and applying them to two major case studies: 1) a CEO; and 2) yourself. In this context, coaching the development of leadership will be a major topic throughout the course. This course will explore questions such as: Who are effective leaders? Are they different from effective managers? How do they think and act? What makes us want to follow them? How are leaders developed? What and how can people (you) help/coach others develop their competencies to become more effective leaders? (Part one of a three-section course.) Prereq: Open to MPOD candidates only.

MPOD 416B. Leadership and Executive Assessment and Development. 1 Unit.
Leadership with emotional intelligence will be examined by studying a number of topics and applying them to two major case studies: 1) a CEO; and 2) yourself. This course will explore questions such as: Who are effective leaders? Are they different from effective managers? How do they think and act? What makes us want to follow them? How are leaders developed? What and how can people (you) help others develop their competencies to become more effective leaders? (Part two of three) Prereq: MPOD 416A.
MPUD 416C. Leadership, Executive Assessment and Development. 1 Unit.
Leadership with emotional intelligence will be examined by studying a number of topics and applying them to two major case studies: 1) a CEO; and 2) yourself. In this context, coaching the development of leadership will be a major topic throughout the course. This course will explore questions such as: Who are effective leaders? Are they different from effective managers? How do they think and act? What makes us want to follow them? How are leaders developed? What and how can people (you) help/coach others develop their competencies to become more effective leaders? (Part three of a three-section course.) Prereq: MPUD 416B.

MPUD 418. Flourishing Enterprise. 2 Units.
Global issues such as climate change and food security, as well as heightened expectations for personal health and well-being in the workplace, are introducing greater levels of complexity into business strategy and operations, with far-reaching implications for customer satisfaction and employee engagement. Effective handling of these issues can lead to new sources of revenue generation and cost efficiency, as well as reputational value, while failure to do so can lead to financial and competitive risk. Prereq: Open to MPUD candidates only.

MPUD 431B. Experiential Learning for Individuals, Teams, and Organizations. 1 Unit.
This course focuses on the theory of experiential learning and its application at the individual, team, and organizational levels of analyses. This course offers the chance for students to gain insight into their individual learning and adaptive styles, and how such styles impact the way they interact and have consequence for team. The course also explores how teams and organizations learn, and the effect that cultural determinants have on learning and adaptability. In addition, the course examines how learning theory can be applied to focused institutional development projects and educational processes. The course uses presentations, lectures, research findings, interactive activities, and class discussion. The current topics of interest are for the Masters in Positive Organization and Change (MPUD) candidates. It is led by a faculty member of the Department of Organization Behavior. Reflective essays and integrative papers will enable participants to explore their learning styles and that of their organizations and teams to strengthen the practice of OD and human systems change and development. Part two of two. Prereq: MPUD 431A.

MPUD 432. Interpersonal Skills Building. 3 Units.
Interpersonal and team dynamics. It will help you build more open and effective relationships among peers and clients by improving your ability to cooperate with and lead others to work effectively in today’s increasingly team-oriented organizations. The emphasis of this course is on learning about oneself in the context of others and using these insights to facilitate learning in the groups you lead. Prereq: Open to MPUD candidates only.

MPUD 432A. Interpersonal Skills Building. 1 Unit.
The objective of this course is to hone the participant’s abilities to use themselves as instruments of change and development in relationships with colleagues and clients. This requires comfort with and practice in intervening in a broad range of interpersonal and group dynamics, and knowledge of how one’s unique personal style and character serve as both strengths and weaknesses in dealing with others in a helping relationship. Participants will explore theories of adult development, interpersonal and group dynamics, diagnose their interpersonal needs and styles, and practice techniques for developing generative relationships with clients across the OD (organization development) cycle and as process consultants in group settings. Prereq: Open to MPUD candidates only.

MPUD 432B. Interpersonal Skills Building. 1 Unit.
The objective of this course is to hone the participant’s abilities to use themselves as instruments of change and development in relationships with colleagues and clients. This requires comfort with and practice in intervening in a broad range of interpersonal and group dynamics, and knowledge of how one’s unique personal style and character serve as both strengths and weaknesses in dealing with others in a helping relationship. Participants will explore theories of adult development, interpersonal and group dynamics, diagnose their interpersonal needs and styles, and practice techniques for developing generative relationships with clients across the OD (organization development) cycle and as process consultants in group settings. (Part two of two.) Prereq: Open to MPUD candidates only.

MPUD 435. Practicum in Appreciative Inquiry and Positive OD. 3 Units.
This course develops participants’ consultative skills. Competence in role entry and development, data collection, intervention and evaluation is gained through class exercises and field projects. The focus is on developing a problem-centered approach to intervening in organizations that minimizes reliance on programmed techniques and maximize collaborative innovation and learning between client and consultant. Prereq: Open to MPUD candidates only.

MPUD 439A. Individual Field Project. 2 Units.
The objective of this course is to plan and execute a significant organization development, change and/or analysis project with an ongoing client or employer. Emphasis is placed on the craft of developing projects that are consistent with one’s current skills, career plans and developmental needs, combined with the needs, opportunities, readiness, and resources of the client organization. This course is limited to candidates for the MPUD program. (Part one of a two section course.) Prereq: Open to MPUD candidates only.

MPUD 439B. Individual Field Project. 2 Units.
The objective of this course is to plan and execute a significant organization development, change and/or analysis project with an ongoing client or employer. Emphasis is placed on the craft of developing projects that are consistent with one’s current skills, career plans and developmental needs, combined with the needs, opportunities, readiness, and resources of the client organization. This course is limited to candidates for the MPUD program. (Part two of a two-section course.) Prereq: MPUD 439A.

MPUD 440A. Inclusive Leadership in a Global Context. 1 Unit.
The purpose of this course is to help you understand the current theories and effective practices of inclusive leadership in a global context, and through this understanding, to help you enhance your own leadership practices and capabilities. We will examine the methods, challenges, trade-offs, and frontiers of inclusive leadership through application of leadership concepts to case studies. Student teams will identify and conduct an at-a-distance project studying a global executive. The course will facilitate the development of personal efficacy for working with and supervising diverse others—those from different nations/cultures, races/ethnicities, genders, age groups, religions and lifestyles who may have different values, perspectives, approaches and abilities. As you gain self-awareness of the impact of your own identity, you will clarify your own approaches and styles and become more authentic as a leader and change agent. You will also develop practical knowledge about enabling team cultures of engagement and inclusion. Part one of three. Prereq: Open to MPUD candidates only.
MPOD 440B. Inclusive Leadership in a Global Context. 1 Unit.
The purpose of this course is to help you understand the current theories and effective practices of inclusive leadership in a global context, and through this understanding, to help you enhance your own leadership practices and capabilities. We will examine the methods, challenges, trade-offs, and frontiers of inclusive leadership through application of leadership concepts to case studies. Student teams will identify and conduct an at-a-distance project studying a global executive. The course will facilitate the development of personal efficacy for working with and supervising diverse others—those from different nations/cultures, races/ethnicities, genders, age groups, religions and lifestyles who may have different values, perspectives, approaches and abilities. As you gain self-awareness of the impact of your own identity, you will clarify your own approaches and styles and become more authentic as a leader and change agent. You will also develop practical knowledge about enabling team cultures of engagement and inclusion. Part two of three. Prereq: Open to MPOD candidates only.

MPOD 440C. Inclusive Leadership in a Global Context. 1 Unit.
The purpose of this course is to help you understand the current theories and effective practices of inclusive leadership in a global context, and through this understanding, to help you enhance your own leadership practices and capabilities. We will examine the methods, challenges, trade-offs, and frontiers of inclusive leadership through application of leadership concepts to case studies. Student teams will identify and conduct an at-a-distance project studying a global executive. The course will facilitate the development of personal efficacy for working with and supervising diverse others—those from different nations/cultures, races/ethnicities, genders, age groups, religions and lifestyles who may have different values, perspectives, approaches and abilities. As you gain self-awareness of the impact of your own identity, you will clarify your own approaches and styles and become more authentic as a leader and change agent. You will also develop practical knowledge about enabling team cultures of engagement and inclusion. Part three of three. Prereq: Open to MPOD candidates only.

MPOD 470A. Leading Change from a Complexity Perspective. 1 Unit.
In this course, we will continuously attempt to answer two questions: (1) What is the process of sustained, desirable change? and (2) What is the role of a leader? Concepts from complexity theory will be used, including understanding the multilevel nature of SDC at the individual, dyad, team, organization, community, country, and global levels. Intentional Change Theory (ICT) will be used as the organizing concept for the changes studied. In this context, coaching the development of leadership will be a major topic throughout the course. Prereq: MPOD candidates only.

MPOD 470B. Leading Change from a Complexity Perspective. 2 Units.
In this course, we will continuously attempt to answer two questions: (1) What is the process of sustained, desirable change? and (2) What is the role of a leader? Concepts form complexity theory will be used, including understanding the multilevel nature of SDC at the individual, dyad, team, organization, community, country, and global levels. Intentional Change Theory (ICT) will be used as the organizing concept for the changes studied. In this context, coaching the development of leadership will be a major topic throughout the course. Prereq: MPOD candidates only.

MPOD 479. Foundations of Strategic Thinking. 3 Units.
This course will define what constitutes strategic change and what does not. Students will be introduced to a variety of strategic interventions and models from which to interpret, understand and achieve positive organizational change. Opportunity will be provided to apply selected models to the student's organization and other cases in order to gain insight and appreciation for financial and non-financial factors that influence fundamental organizational growth and development. Prereq: Open to MPOD candidates only.

MPOD 480. Dynamics of Effective Consulting Strategies. 3 Units.
This course will: 1) highlight the major current trends and changes that affect the nature of managerial work; 2) describe how OD practitioners and consultants need to factor such trends into their consulting strategies; 3) differentiate between types of interventions, the circumstances in which they apply and their unique strengths; 4) provide background theories that explain the challenges inherent in mobilizing positive change; 5) describe ways to bridge the gap between knowing and doing in order to build organization resilience; and 6) introduce a variety of consulting techniques and skills that the students can add to their repertoire. Prereq: Open to MPOD candidates only.

MPOD 498. Global Citizenship and Multi-Cultural OD: International Study Tour. 3 Units.
This course will broaden perspectives and knowledge of how OD principles and technologies are generated and applied in contexts and cultures outside of North America. Selected literature representing global perspectives on the practice of OD and field experiences will provide support and background for personal experience and reflection on cross-cultural issues in organizing. The primary learning context will be an intense, 10-day study tour to some country outside of North America to provide the participants with opportunities for: 1) comparative studies of OD practices in different cultural settings; 2) in-depth experiences with OD practitioners and students in a different national, regional and cultural context; 3) co-inquiry with non-North American students also involved in developing OD knowledge and skills; and 4) on-site organization visits outside of North America to observe and learn about on-going dynamic change efforts. Prereq: Open to MPOD candidates only.

MSBA Courses

MSBA 400. Linear Algebra. 1 Unit.
The objective of this one-credit hour course is to provide a basic working knowledge of material in linear algebra that is relevant to the MSM-OR/SC and MSM-BA programs. This background material includes geometric and algebraic properties of vectors and matrices together with operations that can be performed on them. The use of vectors and matrices in solving systems of linear equations is taught. Offered as MSOR 400 and MSBA 400. Prereq: For MSM-Business Analytics students and MSM-Business Analytics Integrated students only.
MSBA 406A. Operations Management I. 1.5 Unit.
Operations managers, ranging from supervisors to vice presidents, are concerned with the production of goods and services. More specifically, they are responsible for designing, running, controlling and improving the systems that accomplish production. This course is a broad-spectrum course with emphasis on techniques helpful to the practice of management at the analyst level. Its goal is to introduce you to the environments, to help you appreciate the problems that operations managers are confronted with, and provide you with the tools to address these problems. Operations Management spans all value-adding activities of an organization including product and process design, production, service delivery, distribution network and customer order management. As global competition in both goods and services increases, a firm's survival depends upon how well it structures its operations to respond quickly to changing consumer needs. Thus, it is essential for all business managers to acquire an understanding of operations management to maintain their competitive advantage. This course provides students with the basic tools needed to become an analyst in Supply Chain and Operations Management. This course provides an overview of Process analysis, Capacity management, Queuing system and analysis. Prereq: For MSM Business Analytics and MSM Business Analytics Integrated students only.

MSBA 406B. Operations Management II. 1.5 Unit.
Operations managers, ranging from supervisors to vice presidents, are concerned with the production of goods and services. More specifically, they are responsible for designing, running, controlling and improving the systems that accomplish production. This course is a broad-spectrum course with emphasis on techniques helpful to the practice of management at the analyst level. Its goal is to introduce you to the environments, to help you appreciate the problems that operations managers are confronted with, and provide you with the tools to address these problems. Operations Management spans all value-adding activities of an organization including product and process design, production, service delivery, distribution network and customer order management. As global competition in both goods and services increases, a firm's survival depends upon how well it structures its operations to respond quickly to changing consumer needs. Thus, it is essential for all business managers to acquire an understanding of operations management to maintain their competitive advantage. This course provides an overview of Quality management, Material Requirements planning, Inventory management, and Supply Chain management. The emphasis of the course is on both real world applications and technical problem solving. Several manufacturing and non-manufacturing environments will be discussed explicitly, like health care, insurance, hotel-management, airlines and government related operations. Also we will explore the interface of operations management with other functional areas such as marketing, finance, accounting, etc. This coursework includes individual and group assignments, case analyses and experiential learning through simulations and educational games. Prereq: For MSM Business Analytics and MSM Business Analytics Integrated students only and MSBA 406A.

MSBA 407A. Managerial Marketing I. 1.5 Unit.
This course is part one of the Core Marketing Management class, as taught in typical MBA programs, including our own. Marketing management is defined as the 'art and science of choosing target markets and getting, keeping, and growing customers through creating, delivering, and communicating superior customer value' (Kotler and Keller 2012, p. 3). This course addresses the management challenges of developing products and services that profitably deliver value including selecting target markets and designing the best combination of marketing variables to carry out a firm's strategy. Prereq: For MSM Business Analytics and MSM Business Analytics Integrated students only.

MSBA 407B. Managerial Marketing II. 1.5 Unit.
This course is part one of the Core Marketing Management class, as taught in typical MBA programs, including our own. Marketing management is defined as the 'art and science of choosing target markets and getting, keeping, and growing customers through creating, delivering, and communicating superior customer value' (Kotler and Keller 2012, p. 3). This course addresses the management challenges of developing products and services that profitably deliver value including selecting target markets and designing the best combination of marketing variables to carry out a firm's strategy. MSM Business Analytics students and MSM Business Analytics Integrated students only and MSBA 407A.

MSBA 410. Accounting and Financial Management. 3 Units.
This course focuses on learning the language of business, how basic accounting information is reported and analyzed, and how basic financial principles can be applied to understanding how value is created within an enterprise. This course is intended for individuals who have a limited background in accounting, finance and business. Most of the exercises will involve evaluating and building models in Excel. Teaching objectives are fairly straightforward: 1. Provide you with a basic understanding of the key principles of accounting and finance. We will quickly cover material that is typically covered in a three-course sequence (Introductory Accounting and Finance I and II). We will fly at a fairly high level, but we want to make sure you understand the basic concepts. 2. Apply these concepts to real (but straightforward) business situations, to gain a better understanding of how companies utilize accounting and financial information. 3. Time permitting, explore how these concepts can be applied to securities, mergers and acquisitions and leveraged buyout transactions, with a specific emphasis on how these concepts are likely to surface in your role in such transactions. Offered as MSBA 410 and MSOR 410. Prereq: For MSM-Business Analytics students and MSM-Business Analytics Integrated students only.
MSBA 411. Operations Analytics: Deterministic. 3 Units.
The first half of the course provides a practical coverage of linear programming, a special type of mathematical model. The art of formulating linear programs is taught through the use of systematic model-building techniques. The simplex algorithm for solving these models is developed from several points of view: geometric, conceptual, algebraic, and economic. The role and uses of duality theory are also presented. Students learn to obtain and interpret a solution from a computer package and how to use the associated output to answer "What-happens-if..." questions that arise in post-optimality analysis. Specific topics include: problem formulation, geometric and conceptual solution procedures, the simplex algorithm (phase 1 and phase 2), obtaining and interpreting computer output, duality theory, and sensitivity analysis. The second half of this course provide a practical approach to formulating and solving combinatorial optimization problems in the areas of networks, dynamic programming, project management (CPM), integer programming, and nonlinear programming. The art of formulating problems, understanding what is involved in solving them, and obtained and interpreting the solution from a computer package are shown. A comparison with formulating and solving linear programming problems is provided as a way to understand the advantages and disadvantages of some of these problems and solutions procedures. Recommended preparation: Knowledge of Excel, one semester each of undergraduate linear algebra and undergraduate calculus (derivatives); or consent of instructor. Prereq: For MSM-Business Analytics students and MSM-Business Analytics Integrated students only.

MSBA 432. Operations Analytics: Stochastic. 3 Units.
This course covers modeling and analysis of discrete-event dynamical systems using computer simulations. Topics include an introduction to simulation as a modeling tool, with emphasis on understanding the structure of a simulation model and how to build such models, model validation, random number generation, simulation languages, statistical simulation output analysis, design of simulation experiments and selected current research topics. Prereq: For MSM-Business Analytics students and MSM-Business Analytics Integrated students only.

MSBA 433. Foundations of Probability and Statistics. 3 Units.
Data of many kinds are typically available in practice, but the challenge is to use those data to make effective professional decisions. This software-intensive course begins with useful descriptions of data and the probability theory foundation on which statistics rests. It continues to statistics, including the central limit theorem, which explains why data often appear to be normally distributed, and the Palm-Khintchine theorem which explains why data often appear to have a Poisson distribution. The remainder of the course focuses on regression and forecasting, including detecting and overcoming some of the deadly sins of regression, and the surprising flexibility of regression models. Recommended preparation: One semester of undergraduate calculus or consent of instructor. Offered as MSOR 433, OPRE 433 and MSBA 433. Prereq: For MSM Business Analytics and MSM Business Analytics Integrated students only.

MSBA 434. Data Mining & Visualization. 3 Units.
Data Mining is the process of identifying new patterns and insights in data. As the volume of data collected and stored in databases grows, there is a growing need to provide data summarization (e.g., through visualization), identify important patterns and trends, and act upon the findings. Insight derived from data mining can provide tremendous economic value, often crucial to businesses looking for competitive advantages. This course is a survey of data visualization methods, supervised and unsupervised learning techniques, and modern tools for discovering knowledge for business decisions. Prereq: For MSM Business Analytics and MSM Business Analytics Integrated students only.

MSBA 435. Marketing Models & Digital Analytics. 3 Units.
Models & analytics suitable for digital marketing data are the focus of this course. The objective to develop analytical skills for making intelligent decisions about marketing investments that create value and build competitive advantage. In short, to build capabilities for marketing AI-analytics for insights. The course content and assignments are designed to (a) enable student learning by using real-world problems and data, (b) emphasize the Problem-Data-Analytics interdependence for effective problem solving, and (c) engage with thoughtful practitioners of digital data analytics to inform current practices and opportunities. Prereq: For MSM-Business Analytics students and MSM-Business Analytics Integrated students only.

MSBA 444. Predictive Modeling. 3 Units.
Predictive modeling is a set of procedures and tools for hypothesizing, testing and validating a model to explain and predict the probability or likelihood of a future event, or outcome. A wide range of procedures and tools are available for predictable modeling, and this course will cover a select set of topics with wide applicability. Through applications and case studies involving real-life data, the course will emphasize managerial problem solving. To build models is to capture managerial problem formulation, and to test/validate them is to confront managerial hypotheses with empirical observations. Problem solving is a creative act rooted in validated evidence of managerial hypotheses testing. Prereq: For MSM Business Analytics and MSM Business Analytics Integrated students only.

MSBA 445. Advanced Marketing Analytics. 3 Units.
In order to improve decision making in various decision areas of marketing like segmentation, positioning, advertising, promotions, new product development and pricing, use of quantitative data and analysis has become very popular. It is increasingly common for marketing managers to be challenged by top managers, to show the value of marketing expenditures to an organization's financial well-being. This course will introduce a variety of data based decision-aids in the marketing area that will often focus on those metrics. In addition, the course will also introduce SAS to you. SAS is a very popular tool that analysts in business and economics field have been using for decades now, and has the potential to open some doors for you when it comes to internships and jobs. The course will also use R in parallel to re-emphasize what you have already learnt in previous classes. Prereq: For MSM-Business Analytics students and MSM-Business Analytics Integrated students only.

MSBA 446. Machine Learning and Artificial Intelligence in Business Analytics. 3 Units.
Advances in computational analytics including Machine, Deep and Statistical Learning (ML) provide powerful methods for developing mathematical "learning" models that can autonomously parse, learn from, and make predictions from data to improve performance with "experience". In deep learning, large neural networks are leveraged to achieve artificial intelligence (AI), enabling machines to mimic human behavior. This course covers principles, algorithms, and applications of machine learning from a business analytics perspective. Specifically, the course will provide a practical understanding of modern machine learning techniques including regression and classification methods, resampling methods and model selection, regularization, perceptron and artificial neural networks, tree-based methods, support vector machines and kernel methods, and grouping methods. Prereq: MSBA 434 or MSBA 444.
MSFC 428. Financial Strategies and Value Creation. 3 Units.
This course explores the characteristics of financial investments and markets and develops modern techniques of investment analysis and management. The goal is to help students develop a level of analytical skill and institutional knowledge sufficient to make sensible investment decisions. Topics include: an overview of stock, debt and derivative asset markets, practical applications of modern portfolio theory, equilibrium and arbitrage-based approaches to capital market pricing, the debate over market efficiency, the term structure of interest rates, bond portfolio management, and uses of derivative assets in investment portfolios. Prereq: For MSM-Finance students in Shanghai, China

MSFC 429. Portfolio Management and Asset Allocation. 3 Units.
This course explores the characteristics of financial investments and markets and develops modern techniques of investment analysis and management. The goal is to help students develop a level of analytical skill and institutional knowledge sufficient to make sensible investment decisions. Topics include: an overview of stock, debt and derivative asset markets, practical applications of modern portfolio theory, equilibrium and arbitrage-based approaches to capital market pricing, the debate over market efficiency, the term structure of interest rates, bond portfolio management, and uses of derivative assets in investment portfolios. Prereq: For MSM-Finance students in Shanghai, China

MSFC Courses

MSFC 400. MSFC Orientation. 0 Unit.
This will cover introduction to the MSM-Finance program in China, along with discussion of the administrative and curricular rules governing this program. Prereq: For MSM-Finance students in Shanghai, China

MSFC 403. Financial Management. 1.5 Unit.
Serves as a perquisite for several advanced electives in banking and finance. Its purpose is to familiarize the student with the theory and application of models used in financial decision-making by corporations. Issues relating to efficient markets, financing decisions, capital budgeting, risk and return, and securities valuation are among the topics considered. Prereq: For MSM-Finance students in Shanghai, China

MSFC 404. Financial Modeling & Value. 1.5 Unit.
Firms try to create value. In their day-to-day operations, they are faced with numerous challenges: Should we accept trade credit or borrow? Will an acquisition create or destroy value? Should we introduce a new product line even if it cannibalizes an existing one? In each of these situations they try to quantify the impact on the value of their firm. The goal of this course is to develop your skills in financial modeling and valuation, so you can tackle issues like the ones described above. The course is designed to be "hands-on": You will learn to apply the theory and develop spreadsheet modeling skills through homework, case studies and a group project. By the end of the course you will have a good understanding of both the theory and practice of valuation, and possess a set of cutting-edge financial modeling skills. This course is designed for students who aspire to work in a regular company, a bank or a consulting firm in (i) corporate finance (including mergers and acquisitions); (ii) strategy; or (iii) equity analysis. Prereq: For MSM-Finance students in Shanghai, China

MSFC 428. Financial Strategies and Value Creation. 3 Units.
The intersection between the theory of perfect markets and the reality of market imperfections provides the basis for the exploration of value creation in this course. Opportunities in both product and financial markets are explored using case studies to develop a framework for strategic financial decisions. Prereq: For MSM-Finance students in Shanghai, China

MSFC 429. Portfolio Management and Asset Allocation. 3 Units.
This course explores the characteristics of financial investments and markets and develops modern techniques of investment analysis and management. The goal is to help students develop a level of analytical skill and institutional knowledge sufficient to make sensible investment decisions. Topics include: an overview of stock, debt and derivative asset markets, practical applications of modern portfolio theory, equilibrium and arbitrage-based approaches to capital market pricing, the debate over market efficiency, the term structure of interest rates, bond portfolio management, and uses of derivative assets in investment portfolios. Prereq: For MSM-Finance students in Shanghai, China

MSFC 430. Derivatives Markets and Models. 3 Units.
This course is intended to give students an understanding of options and futures markets both in theory and practice. The emphasis is on arbitrage and hedging. The course concentrates on listed common stock and index contracts as well as commodity markets. Various theories for trading strategies are studied. Prereq: For MSM-Finance students in Shanghai, China

MSFC 431. Fixed Income Markets and Models. 1.5 Unit.
This class is concerned with fixed income securities, interest rate risk management, and credit risk. Fixed income securities account for about two thirds of the market value of all outstanding securities, and hence this topic is important. The course covers the basic products of fixed income markets including treasury and LIBOR products, such as interest rate swaps. Risk management and hedging strategies are covered as well as selected topics in credit risk models and mortgage-backed securities. Prereq: For MSM-Finance students in Shanghai, China

MSFC 432. Corporate Risk Management. 1.5 Unit.
This is a unique strategic risk management course aimed at participants who wish to enhance their understanding of the risks faced by corporate firms, both financial and non-financial, learn techniques to identify and measure these risks, and understand how derivatives and risk management solutions can be used to manage these risks, create value, and advance the strategic goals of the firm. The course is designed in a manner such that it would be of use to executives of all corporations, financial and nonfinancial, across all functional areas. Prereq: For MSM-Finance students in Shanghai, China

MSFC 433. Quantitative Risk Modeling. 3 Units.
This course exposes students to state-of-the-art quantitative techniques in risk modeling. The course covers the analytical as well as simulation based implementation of different types of risk models using Excel, including several Value-at-Risk (VaR) models. It also covers volatility modeling, correlation estimation, extreme value theory, back-testing, and stress testing of risk models. This course is for MSFC students in Shanghai, China only. Prereq: For MSM-Finance students in Shanghai, China

MSFC 434. Financial Econometrics. 3 Units.
MSFC 434 represents a rigorous study of the latest developments in the area of financial econometrics. The class assumes no prior knowledge of econometrics. It assumes that you have had a basic statistics class and that you have had regression analysis. It is taught using economic motivations and examples from the financial world. The course concerns modern econometric topics like time-series forecasting, volatility modeling, and panel data analysis. Various concepts and approaches in the course will be subjected to real world data. Students are expected to have basic knowledge of the fundamentals of corporate finance and statistics. The course aims at providing a lasting conceptual framework for model building using modern applied econometric techniques commonly employed in finance. Prereq: For MSM-Finance students in Shanghai, China
MSFC 440. Financial Decisions, Contracting and Value. 1.5 Unit.
This course exposes the students to a more in-depth treatment of some of the topics covered in MSFC 403 and introduces them to new topics. Topics include investment decisions, financing decisions, payout decisions, contracting decisions and performance metrics, internal control systems, risk management, real options, diversification and valuation. Topics covered may vary from semester to semester. Prereq: For MSM-Finance students in Shanghai, China

MSFC 441A. Global Banking and Capital Markets I. 1.5 Unit.
This course will expose students to Banking and Capital Market Structure, Practices, and Regulations. Topics covered include the financial services industry, especially commercial banking and investment banking, regulatory framework, market reactions to various corporate events, understanding risk, the return demanded by investors, activists involvement in target firms, and market reactions to such events. Several case studies are used to expose students to different issues and questions that arise in the day-to-day jobs of financial managers in this industry. Prereq: For MSM-Finance students in Shanghai, China

MSFC 441B. Global Banking and Capital Markets II. 1.5 Unit.
This course will expose students to Banking and Capital Market Structure, Practices, and Regulations. Topics covered include the financial services industry, especially commercial banking and investment banking, regulatory framework, market reactions to various corporate events, understanding risk, the return demanded by investors, activists involvement in target firms, and market reactions to such events. Several case studies are used to expose students to different issues and questions that arise in the day-to-day jobs of financial managers in this industry. Prereq: For MSM-Finance students in Shanghai, China.

MSFC 450. Corporate Valuation and M&A Restructuring. 1.5 Unit.
This course examines the economic rationale and motivation for the different merger and acquisition and recapitalization activity undertaken by firms and individuals in the U.S. market. Emphasis is on the comparable publicly traded proxy company, comparable "change of control" transaction, and discounted cash flow methods of valuing a firm. The class will also review the different types of debt and equity capital employed to fund mergers and acquisitions and recapitalization, how senior lenders and equity investors structure their loans and/or investments, and how investors realize the gains through different exit strategies. The legal and tax ramifications of various forms of M&A activity are also discussed. The course gives the student an excellent understanding of the role that senior commercial banks, insurance companies, pension funds, LBO funds, investment banking firms, and venture/growth capital investors play in mergers and acquisitions and will strengthen the students' ability to value a business enterprise. Prereq: For MSM-Finance students in Shanghai, China

MSFC 455. A Foundation in Basic Concepts of Innovations and Applications for Financial Technology. 1.5 Unit.
Over last few years, field of finance has experienced a burst of technological advances that have disrupted and transformed traditional methods of accessing, allocating, and transferring capital. Understanding the evolution of traditional finance methods is increasingly important for finance students so they can meaningfully distinguish advantages and disadvantages of traditional versus emerging methods and models. Main objective of course is to provide foundation in basic concepts of these innovations and their applications. It is this collective financial technology focus that has garnered the name of FinTech. This course will cover many aspects of FinTech proliferation, from notable successes to current innovations and thoughts about future opportunities. Topics will include FinTech applications, blockchains, cryptocurrencies, crowdfunding, payment systems and trading technology. This list may change from semester to semester, in tune with changing technology and as business models become disrupted. Prereq: For MSM-Finance students in Shanghai, China

MSFC 460. Investment Strategies. 1.5 Unit.
The class describes some of the main strategies used by hedge funds and provides a methodology to analyze them. In class and through exercises, the strategies will be illustrated using real data and students will learn to use "back testing" to evaluate a strategy. Throughout the semester, we will discuss the economics underlying these strategies and we will analyze why certain strategies might work and why others might not. The class also covers institutional issues related to short selling, liquidity, and performance measurement. The class is fairly quantitative. As a result of the advanced techniques used in state-of-the-art hedge funds, the class requires the students to work hard, analyze and manipulate real data, and use mathematical modeling.

MSFC 480. International Finance. 1.5 Unit.
This course introduces students to international finance and foreign exchange risk management by corporations. Topics include foreign exchange markets and international financial institutions; fx contracts; exchange rate risk and corporate risk management; and international aspects of long-term financing. Prereq: For MSM-Finance students in Shanghai, China

MSFI Courses

MSFI 401. Financial Orientation. 1.5 Unit.
This is a mandatory preparatory/refresher course for all entering MSM-Finance students. It will cover several basic topics in statistics, financial accounting and in financial management, so that all students can hit the road running with the other MSM-Finance core courses in the first semester. Prereq: For MSM-Finance students only.

MSFI 403. Corporate Financial Technology. 3 Units.
This course is focused on the many aspects of the development in Financial Technology from recent notable successes to the current edge and thoughts about the future. Topics covered will include "FinTech" Applications, Incubators and Angels, Block Chains, Crypto-currencies, Crowdfunding, and Payment Schemes. Topics can change from semester to semester, in tune with changing technology. Offered as MSFI 403 and BAFI 403. Prereq: For MSM-Finance students only.
MSFI 404. Financial Modeling. 3 Units.
This is a course about financial modeling. It covers a range of topics in the field of financial economics. Each topic is chosen because it lends itself to financial modeling. The primary focus of the course is to relate the theory of finance to practical and usable spreadsheet models that will assist a financial manager with a firm’s investment and financing decisions. Spreadsheet models have been the dominant vehicle for finance professionals to practice their trade. This course will utilize Excel and challenge the student to improve their finance and modeling skills. Students will improve their familiarity with financial data analysis through various exercises that incorporate completed models. In summary, the course is designed to increase your practical understanding of core concepts in finance, help you develop hands-on spreadsheet modeling skills, and strengthen your ability to perform financial data analysis within an Excel model. Prereq: For MSM-Finance students only.

MSFI 421. Corporate Financial Analysis. 3 Units.
This course is designed to lay the analytic foundation for careers in corporate finance, banking, consulting, and investment banking. The objective of the course is to strengthen students’ conceptual understanding and problem-solving skills, and teach them how to think on their feet. Topics covered include Economic cash flows and valuation, Valuation methods, Long term financial planning and ratios analysis, Growth and external financing, Managerial options and valuation, Capital structure, and Payout policy. Topics covered may change from semester to semester. The course envisages use of spreadsheets and case studies, and will emphasize on links to real-world events. Prereq: For MSM-Finance students only.

MSFI 428. Financial Strategy and Value Creation. 3 Units.
The intersection between the theory of perfect markets and the reality of market imperfections provides the basis for the exploration of value creation in this course. Opportunities in both product and financial markets are explored using case studies to develop a framework for strategic financial decisions. Prereq: For MSM-Finance students only.

MSFI 429. Investment Management. 3 Units.
This course explores the characteristics of financial investments and markets and develops modern techniques of investment analysis and management. The goal is to help students develop a level of analytical skill and institutional knowledge sufficient to make sensible investment decisions. Topics include: an overview of stock, debt and derivative asset markets, practical applications of modern portfolio theory, equilibrium and arbitrage-based approaches to capital market pricing, the debate over market efficiency, the term structure of interest rates, bond portfolio management, and uses of derivative assets in investment portfolios. Prereq: For MSM-Finance students only.

MSFI 430. Derivatives and Risk Management. 3 Units.
This course is intended to give students an understanding of options and futures markets both in theory and practice. The emphasis is on arbitrage and hedging. The course concentrates on listed common stock and index contracts as well as commodity markets. Various theories for trading strategies are studied. Prereq: For MSM-Finance students only.

MSFI 431. Fixed Income Markets and Their Derivatives. 3 Units.
This class is concerned with fixed income securities, interest rate risk management, and credit risk. Fixed income securities account for about two thirds of the market value of all outstanding securities, and hence this topic is important. The course covers the basic products of fixed income markets including treasury and LIBOR products, such as interest rate swaps. Risk management and hedging strategies are covered as well as selected topics in credit risk models and mortgage-backed securities. Prereq: For MSM-Finance students only.

MSFI 432. Corporate Risk Management. 3 Units.
This is a risk management course aimed at developing an understanding of the risks faced by financial and nonfinancial firms, learning techniques to identify and measure these risks, and understanding how financial engineering (especially derivatives) can be used to manage these risks and advance the strategic goals of the firm. Main topics include Value-at-Risk (VaR) techniques and implementation of VaR systems (RiskMetrics, Delta-normal, Historical Simulation, Structured Monte-Carlo); financial risk measurement and management using forwards, futures, options, swaps, and exotics; and credit risk management, including implementing various credit risk and credit VaR models, estimating capital at risk, and using credit derivatives for managing credit risk. Several classes are devoted to discussing recent risk management debacles and relating them to theory. Prereq: For MSM-Finance students only.

MSFI 433. Quantitative Risk Modeling. 3 Units.
This course is designed to help students learn quantitative models for estimating risk in various financial settings for different types of financial institutions (banks, hedge funds, and others). It is a very hands-on course where students will become familiar with several state-of-the-art quantitative risk models as well as their detailed implementation procedure in the real world. The course uses several in-class Excel exercises to illustrate the models as well as their practical implementation using real financial data. Offered as BAFI 433 and MSFI 433. Prereq: For MSM-Finance students only.

MSFI 434. Financial Analytics and Banking. 3 Units.
This course will cover empirical and analytical aspects of banking, including loan origination, syndication, sales, stress-testing and securitization; capital adequacy, regulation and supervision; methods of measuring and managing value at risk, credit risk, interest rate risk, liquidity risk, and other risk; credit market information, feedback, and signaling. Offered as BAFI 434 and MSFI 434.

MSFI 435. Empirical Finance. 3 Units.
This course provides an introduction to empirical analysis and research in finance. This involves the management of empirical datasets and the aspects of quantitative applications of finance theory. The goal is to enable the student to deal with the need to analyze complex and large financial and economic datasets that is present in many fields of the financial profession. The scope of the data as well as the quantitative methods used in such analysis often requires familiarity with robust computational environments and statistical packages. As such, another goal of the course is to familiarize the student with at least one such environment. Applications are conducted using real financial and economic data. The course draws on the theoretical aspects of the subjects covered, but mainly focuses on the practical matters required to undertake an empirical analysis of financial topics—e.g., the definition of the research question, the datasets required, the computational needs, and, then, the implementation. The course enables the student to evaluate outstanding financial research as well as to conduct his or her own research. Offered as BAFI 435 and MSFI 435. Prereq: For MSM-Finance students only.
MSFI 436A. Individual, Team and Career Development .75 Unit.
This course is designed to focus on three areas of development critical to students' personal and professional success: 1) Individual; 2) Team; and 3) Career. The individual and team aspects include developing self and other awareness through exploration of learning styles, process skills, and building communication and presentation competencies. Career development includes a focus on strategies for success such as networking, resume building, and learning from executives through intensive and interactive seminars. The course involves use of assessments, group discussions, presentations, and experiential activities. Prereq: For MSM-Finance students only.

MSFI 436B. Individual, Team and Career Development .75 Unit.
This course is designed to focus on three areas of development critical to students' personal and professional success: 1) Individual; 2) Team; and 3) Career. The individual and team aspects include developing self and other awareness through exploration of learning styles, process skills, and building communication and presentation competencies. Career development includes a focus on strategies for success such as networking, resume building, and learning from executives through intensive and interactive seminars. The course involves use of assessments, group discussions, presentations, and experiential activities. Prereq: For MSM-Finance students only.

MSFI 436C. Individual, Team, and Career Development. 0 Unit.
This course is designed to focus on three areas of development critical to a student's personal and professional success: individual, team, and career development. This will be accomplished through a project with a company so that students get a real-life experience related to their field of study. This experience provides students with the opportunity to explore their career interests while applying knowledge learned in the classroom in a real-life setting. The experience also helps students build their professional networks and be part of a team assigned to work on the corporate project.

MSFI 440. Financial Decisions Modeling and Analytics. 3 Units.
The firm is a nexus of contracts among its various stakeholders (e.g., managers, shareholders, debt holders). In this course, we will examine Valuation, Quantitative Analysis of Real Options, Asymmetric Information, Agency Cost, Incentive Contracts and Performance Metrics, Regulation and Reputation. The takeaway learnings from this course are: (a) Understanding how value can be created or destroyed, (b) Measuring/quantifying value using financial big data, (c) Understanding the links between capital structure and asymmetric information, market reactions and signaling, agency and management incentives, taxes and shareholder, bondholder conflicts, (d) Understanding the links between payout policy and informational content, market reaction, stock returns and signaling, and clientele effects, and (e) design of Performance Metrics. We will download corporate financial data (financial big data) from research databases, and conduct empirical analysis to understand the value implications of financial decisions. Excel/SAS will be used. We will analyze case studies and real-world events. Prereq: For MSM-Finance students only.

MSFI 444. Entrepreneurial Finance. 3 Units.
The objective of this course is to introduce students to the issues of financial management and capital formation in new ventures. The course will address issues of estimation of cash requirements, development of pro forma financial plans, firm valuation and the process and tools used in raising debt and equity financing. Bootstrapping, angel investing, venture capital, strategic alliances and initial public offerings will be covered. The emphasis is on the entrepreneur and how he/she can assess financial needs and develop a sensible plan for acquiring financial resources in a manner that is consistent with their financial needs and other strategic goals. Offered as BAFI 444 and MSFI 444. Prereq: For MSM-Finance students only.

MSFI 450. Mergers and Acquisitions. 3 Units.
This course examines the economic rationale and motivation for the different merger and acquisition and recapitalization activity undertaken by firms and individuals in the U.S. market. Emphasis is on the different three (3) methods of valuing a firm, the various forms of debt and equity capital employed to fund mergers and acquisitions and recapitalizations, how lenders and investors structure their loans and/or investments, and how investors realize the gains through different exit strategies. The course gives the student an excellent understanding of the role that senior commercial banks, insurance companies, pensions funds, LBO funds, investment banking firms, and venture/growth capital investors play in mergers and acquisitions. Prereq: For MSM-Finance students only.

MSFI 460. Investment Strategies. 3 Units.
This course provides a broad survey of some of the main strategies used by hedge funds today. Through exercises and projects, the hedge fund strategies will be presented using real data. Students will learn to use a methodology referred to as "back testing" in order to evaluate hedge fund strategies. The course will also cover institutional details related to short selling, liquidity, margin requirements, risk management, and performance measurement. Since hedge funds today use advanced modeling techniques, the course will require students to analyze and manipulate real data using mathematical modeling. The objective of the course is for students to gain practical knowledge about creating, back-testing, and implementing hedge fund trading strategies. Offered as BAFI 460 and MSFI 460. Prereq: For MSM-Finance students only.

MSFI 470. Financial Models Using Big Data. 3 Units.
This course is focused on developing models in investments using financial big data. A strong theoretical base will be developed and relevant empirical analyses using real data will be used for testing models, via individual assignments and group projects. In the projects, groups of students will be immersed in collecting, analyzing, and interpreting financial big data sets. Prereq: For MSM-Finance students only.

MSFI 471. Applications in Financial Big Data. 3 Units.
This course is project-based and focused on solving real-life problems using financial big data. Groups of students will collect/use data, estimate parameters, and conduct appropriate validation tests. Not only do the members have to work together, but they also have to be professional, make interim reports, and communicate effectively with each other. Prereq: For MSM-Finance students only.
MSFI 480. Global Banking & Capital Markets. 3 Units.
This course will expose students to Banking and Capital Market Structure, Practices, and Regulations in North America, Europe, as well as Asia. Students will learn about structure of the financial services industry in different parts of the world, the history and evolution of the regulatory frameworks in this industry, and its consequent impact on financial and economic development as well as risk. Several case studies are used to expose students to different issues and questions that arise in the day-to-day jobs of financial managers in this industry. Offered as BAFI 480 and MSFI 480. Prereq: For MSM-Finance students only.

MSFI 490. Cases in Applied Corporate and Real Estate Valuation. 3 Units.
This course is focused on engaging groups of students in identifying, analyzing and making decisions on real-world corporate financial problems. Teams of students will be assigned to a specific client situation drawn from one of four general areas: (i) mergers and acquisitions (involving corporations and/or leveraged buyout firms), (ii) public equities (IPOs and/or equity research), (iii) corporate financial policies and transactions or (iv) real estate. Learning will include lectures, structured problem solving using live case studies and an in-depth project in which will evaluate an actual current business opportunity and present it to a panel of industry veterans. In addition to learning deeper financial skills, the course will enhance unstructured problem solving, project management, and high level communications skills. Offered as BAFI 490 and MSFI 490. Prereq: For MSM-Finance students only.

MSFI 491. Python Programming w Appl in Finance. 3 Units.
There are two parts to this course. (i) In the first part we learn the basics of Python programming language by solving a sequence of rather simple problems each focusing on broadening your knowledge. At each stage we introduce important commands of Python and slowly learn the structure of object oriented programming with Python. The objective is to make you Python literate. (ii) The second part of the class is for you to tackle significant financial problems either in risk management or in corporate finance using the Python language as the primary tool to do the analysis. You will develop a series of financial models in your track and then tackle two major projects which will utilize all the skills developed. Offered as BAFI 491 and MSFI 491. Prereq: For MSM-Finance students only.

MSFI 493. Blockchains and AI: Applications in Finance and Business. 3 Units.
It behooves today's business leaders to be well acquainted with blockchain technologies and AI (Artificial Intelligence), two seemingly disparate technologies that have the potential to fundamentally disrupt a wide range of businesses. The popularity of blockchain technologies has increased exponentially since the release of bitcoin in 2009. While bitcoins garnered a lot of attention during the initial days, the focus has shifted over time to the underlying technology: blockchain. This wildly innovative technology has made possible tasks that were hitherto deemed implausible: validate ownership in a digital asset, verify the true state of a transaction without relying on a costly intermediary etc. The list of businesses that are impacted by this technology makes for an impressive reading: supply chain, health care, insurance, foreign exchange transfers, real estate, etc. If the emphasis of blockchain technology is on trust, that of Artificial Intelligence is on predictions. Accurate predictions and sound judgements are two critical ingredients of any decision making process. While the jury is still out on whether algorithms can make sound judgements, recent developments in a field called machine learning (and its sub-field, deep learning) have led to dramatic improvements in the accuracy of predictions made by these algorithms. Significantly, this gain in accuracy has been accompanied by a reduction in overall costs. These in turn have spurred the recent interest in AI. Organizations that have enabled AI at the enterprise level appear to be making more informed decisions and innovating new products. In this course, we will unpack these technologies and examine a wide range of relevant business use cases. Our objective is to provide a practical introduction to these key technologies and their business implications. We focus on business perspectives, rather than on the technical dimensions. Fittingly, this course is open to all graduate students of Weatherhead School (MBA and all specialty Masters). Students are not expected to have any specific programming background; however, a basic understanding of statistics is required to better appreciate the discourse on Artificial Intelligence. Offered as BTEC 493 and MSFI 493.
MSFI 494. Artificial Intelligence for Financial Modeling. 3 Units.
Artificial Intelligence for Financial Modeling is a graduate-level finance course aimed at participants who wish to learn more about applying Artificial Intelligence to problems in finance. This is a hands-on course on A.I. where the emphasis is not only on understanding the theoretical underpinnings of various AI models but also on building, evaluating, and critiquing A.I. models as they apply to the finance industry. This course begins with an introduction of Machine Learning models; various key ideas such as bias-variance tradeoff, cross-validation, regularization techniques are introduced with relevant examples from Finance. The course then proceeds to discuss Artificial Neural Networks and its relevance to Deep Learning. Foundational ideas such as back-propagation are discussed in sufficient detail; we also lay a lot of emphasis on evaluating the performance of all these models. A key objective of this course is help students build cutting-edge A.I. models that are ready for prime time, i.e., real-life applications. Fittingly, we work with several real-life datasets and case studies from banking and finance. We will work with three case studies, each of which span multiple sessions. -In the first case study, students use Machine Learning algorithms to understand how imbalanced datasets are handled in real-life. -In the second study, students use time series data and learn not only about the power of regularization techniques but also to highlight the prominence of A.I. in financial markets. -In the third case study, students learn how to use cutting-edge Deep Learning models to extract sentiments from disparate news sources; these are in turn used to generate trading strategies. By contrasting the effort that goes into and the payoff obtained from Machine Learning and Deep Learning models, students gain an intuitive appreciation of both these classes of models. Offered as BTEC 494 or MSFI 494. Prereq: MSFI 493.

MSOR Courses

MSOR 400. Linear Algebra. 1 Unit.
The objective of this one-credit hour course is to provide a basic working knowledge of material in linear algebra that is relevant to the MSM-OR/SC and MSM-BA programs. This background material includes geometric and algebraic properties of vectors and matrices together with operations that can be performed on them. The use of vectors and matrices in solving systems of linear equations is taught. Offered as MSOR 400 and MSBA 400. Prereq: For MSM-Operations Research & Supply Chain students only.

MSOR 402. Stochastic Models with Applications. 1.5 Unit.
This course surveys fundamental methods and models in operations research and operations management that incorporate random elements. Topics discussed will include basic results from the theory of stochastic processes, especially Markov chains; an introduction to stochastic dynamic programming; and models in the control of queues and inventories. Offered as OPRE 402 and MSOR 402. Prereq: For MSM-Operations Research & Supply Chain students only.

MSOR 406. Operations Management. 3 Units.
Operations managers, ranging from supervisors to vice presidents, are concerned with the production of goods and services. More specifically, they are responsible for designing, running, controlling and improving the systems that accomplish production. This course is a broad-spectrum course with emphasis on techniques helpful to the practice of management at the analyst level. Its goal is to introduce you to the environments, to help you appreciate the problems that operations managers are confronted with, and provide you with the tools to address these problems. Operations Management spans all value-adding activities of an organization including product and process design, production, service delivery, distribution network and customer order management. As global competition in both goods and services increases, a firm’s survival depends upon how well it structures its operations to respond quickly to changing consumer needs. Thus, it is essential for all business managers to acquire an understanding of operations management to maintain their competitive advantage. This course provides students with the basic tools needed to become an analyst in Supply Chain and Operations Management. This course provides an overview of Process analysis, Capacity management, Queuing system, analysis, Forecasting, Quality management, Material Requirements planning, Inventory management, and Supply Chain management. The emphasis of the course is on both real world applications and technical problem solving. Several manufacturing and non-manufacturing environments will be discussed explicitly, like health care, insurance, hotel-management, airlines and government related operations. Also we will explore the interface of operations management with other functional areas such as marketing, finance, accounting, etc. This coursework includes individual and group assignments, case analyses and experiential learning through simulations and educational games. Prereq: For MSM-Operations Research & Supply Chain students only.

MSOR 407. Managerial Marketing. 3 Units.
This course will emphasize how to analyze data to support and guide strategic and tactical marketing decisions relevant for supply chain managers for understanding and contributing to marketing decision-making within the firm. Many firms have extensive information, but far fewer have the expertise to act intelligently on such information. Data must be synthesized, analyzed, and interpreted before sound marketing strategies and tactical plans can be developed. The course will emphasize three key themes: (1) Market Opportunity Analysis including competitive analysis, context assessment, and customer analytics (e.g. customer profitability and lifetime value, retention and loyalty), (2) Marketing Mix Analytics including test marketing, pricing, segmentation, and response modeling, and (3) Marketing ROI including the impact of marketing decisions and plans on fundamental financial measures such as return on marketing investment and net contribution to profit. The course uses a combination of lectures, cases, and exercises. Prereq: For MSM-Operations Research & Supply Chain students only.
MSOR 410. Accounting and Financial Management. 3 Units.
This course focuses on learning the language of business, how basic
accounting information is reported and analyzed, and how basic financial
principles can be applied to understanding how value is created within
an enterprise. This course is intended for individuals who have a limited
background in accounting, finance and business. Most of the exercises
will involve evaluating and building models in Excel. Teaching objectives
are fairly straightforward: 1. Provide you with a basic understanding
of the key principles of accounting and finance. We will quickly
cover material that is typically covered in a three-course sequence (Introductory
Accounting and Finance I and II). We will fly at a fairly high level, but
we want to make sure you understand the basic concepts. 2. Apply
these concepts to real (but straightforward) business situations, to
gain a better understanding of how companies utilize accounting and
financial information. 3. Time permitting, explore how these concepts
can be applied to securities, mergers and acquisitions and leveraged
buyout transactions, with a specific emphasis on how these concepts are
likely to surface in your role in such transactions. Offered as MSOR 410
and MSOR 410. Prereq: For MSM-Operations Research & Supply Chain
students only.

MSOR 411. Optimization Modeling. 3 Units.
The first half of the course provides a practical coverage of linear
programming, a special type of mathematical model. The art of
formulating linear programs is taught through the use of systematic
model-building techniques. The simplex algorithm for solving these
models is developed from several points of view: geometric, conceptual,
algebraic, and economic. The role and uses of duality theory are also
presented. Students learn to obtain and interpret a solution from a
computer package and how to use the associated output to answer
"What-happens-if..." questions that arise in post-optimality analysis.
Specific topics include: problem formulation, geometric and conceptual
solution procedures, the simplex algorithm (phase 1 and phase 2),
obtaining and interpreting computer output, duality theory, and sensitivity
analysis. The second half of this course provide a practical approach
to formulating and solving combinatorial optimization problems in the
areas of networks, dynamic programming, project management (CPM),
integer programming, and nonlinear programming. The art of formulating
problems, understanding what is involved in solving them, and obtained
and interpreting the solution from a computer package are shown. A
comparison with formulating and solving linear programming problems
is provided as a way to understand the advantages and disadvantages
of some of these problems and solutions procedures. Recommended
preparation: Knowledge of Excel, one semester each of undergraduate
linear algebra and undergraduate calculus (derivatives); or consent
of instructor. Offered as MSOR 411 and OPRE 411. Prereq: For MSM-
Operations Research & Supply Chain students only.

MSOR 420. Six Sigma and Quality Management. 3 Units.
The Six Sigma process is the standard for quality improvement in
organizations around the globe. In this course, we study the details of
the five steps in the Six Sigma process: DEFINE, MEASURE, ANALYZE,
IMPROVE, and CONTROL (DMAIC). Many tools, concepts, and processes
that are often an integral part of Six Sigma projects in companies are
included in the course content. They range from the very basic tools
of quality (such as cause-and-effect diagrams for brainstorming) to
complete processes (such as benchmarking, quality function deployment,
failure mode and effects analysis-FMEA). Statistical concepts with
software applications that are central to Six Sigma including statistical
process control and introduction to design of experiments are also
included. Once the Six Sigma process and its various components are
understood, we study quality management including quality control,
quality planning, quality improvement, strategic quality management, and
quality strategy. A major requirement of the course is an action learning
component in which the students are assigned in groups to work on
unpaid real projects of Six Sigma in local industries. Students meeting
the required standards of performance will earn a Green Belt Certification
in Six Sigma and Quality Management from the Weatherhead School of
Management. Offered as MSOR 420 and OPMT 420. Prereq; MSOR 406
and MSOR 433 and enrolled in MSM-Operations Research & Supply Chain
program or requisites not met permission.

MSOR 422. Lean Operations. 3 Units.
In this course, students will be taught how to identify inefficiencies
associated with overproduction, waiting, transport, extra processing,
inventory, motion and defects. One-by-one, areas of inefficiencies are
to be identified and improved while educating the workforce towards
continual improvement. Similarly, participants will be trained to reduce
lead times in areas such as engineering design, order entry, purchasing,
order fulfillment, receiving, production, packaging, shipping, invoicing
and collection. The above improvements will lead to cost reductions.
Students will be trained in cost techniques, target pricing, and cost
maintenance. The course will be delivered along the following themes:
1) Mapping the Value Stream (current and future state) 2) Workplace
Organization: SS & Safety, 3) Defect Reduction and Error Proofing,
4) Quick Changeover, 5) Standard Operations, 6) Total Productive
Maintenance, 7) Visual management, 8) One-piece flow, 9) Lean Metrics.
This course is not oriented toward specialists in operations management.
Its goal is to introduce you to the environments and help you appreciate
the problems that operations managers are confronted with and the
key issues in their management. Offered as MSOR 422 and OPMT 422.
Prereq: For MSM-Operations Research & Supply Chain students only.

MSOR 432. Computer Simulation. 3 Units.
Computer Simulation is a process of designing and creating a
computerized model that mimics an existing or proposed system so
as to better understand the behavior of the system. Many studies have
shown that in industry, simulation is most frequently used Operations
Research tool due to its ability to deal with complex systems. The
first half of this course is designed to give students a basic idea of
simulation methodology with the aid of population simulation software.
The emphasis of the course is in simulating business processes, however,
the versatility of the technique will be demonstrated with applications
from finance, health care, etc. The second half of the course covers the
statistical design and analysis of simulation models. The topics include
random number generation, input data analysis, statistical analysis
of simulation outputs, variance reduction techniques, and design of
simulation experiments. Offered as OPRE 332, OPRE 432, and MSOR 432.
Prereq: For MSM-Operations Research & Supply Chain students only.
MSOR 433. Foundations of Probability and Statistics. 3 Units.
Data of many kinds are typically available in practice, but the challenge is to use those data to make effective professional decisions. This software-intensive course begins with useful descriptions of data and the probability theory foundation on which statistics rests. It continues to statistics, including the central limit theorem, which explains why data often appear to be normally distributed, and the Palm-Khintchine theorem which explains why data often appear to have a Poisson distribution. The remainder of the course focuses on regression and forecasting, including detecting and overcoming some of the deadly sins of regression, and the surprising flexibility of regression models. Recommended preparation: One semester of undergraduate calculus or consent of instructor. Offered as MSOR 433, OPRE 433 and MSBA 433. Prereq: For MSM-Operations Research & Supply Chain students only.

MSOR 435B. Integrated Problem Solving in OR and SC. 1.5 Unit.
This project-oriented course uses a variety of software to involve the student in the complete problem-solving process in OR and OM. This process includes problem definition and formulation, data collection, and storage in a database, connecting the database to the solution algorithm, designing and implementing an appropriate user interface, and presenting the final solution. Offered as OPRE 435B and MSOR 435B. Prereq: For MSM-Operations Research & Supply Chain students only.

MSOR 450. Project Management. 3 Units.
Project management is concerned with the management and control of a group of interrelated tasks required to be completed in an efficient and timely manner for the successful accomplishment of the objectives of the project. Since each project is usually unique in terms of task structure, risk characteristics and objectives, the management of projects is significantly different from the management of repetitive processes designed to produce a series of similar products or outputs. Large-scale projects are characterized by a significant commitment of organizational and economic resources coupled with a high degree of uncertainty. The objective of this course is to enhance the ability of participants to respond to the challenges of large-scale projects so that they can be more effective as project managers. We study in detail up-to-date concepts, models, and techniques useful for the evaluation, analysis, management, and control of projects. Offered as MSOR 450, OPMT 350 and OPMT 450. Coreq: MSOR 433 or Requisites Not Met permission.

MSOR 451. Project Quality Management. 3 Units.
This course examines various methods used to ensure the project meets the stakeholder needs for which it was undertaken, including quality planning, quality assurance, and quality control. The coursework integrates the project requirements with the project plan, the reporting of its performance, and marking its closure. The Project Planning Process clarifies the project’s objectives and plans as well as all of the activities necessary in order to meet the project’s objectives and scope. It includes the Change Management Plan, Communications Management Plan, Configuration Management Plan, Cost Management Plan, Human Resource Plan such as roles charts, how resources will be acquired, time when each resource will be needed and any specialized training requirements. Project assurance includes the processes that ensure continual project improvement and learning throughout the organization. It includes the steps for analyzing processes with the purpose of improving the process by setting boundaries, process configuration, process metrics and targets for improved performance. Continuous improvement in projects requires determining Relationship Management, Requirements Management, Risk Management and Scope Management Plans. By having a customer management plan you and your customer can have a proven approach to the relationship. Requirements and Risk management plans are necessary to ensure project success as changes take place during the project lifetime. And Scope Management Plans are needs to align scope expectations with project success. The Project Control Group includes the processes to ensure that the project is managed and executed according to the Project Plan. Project Controlling includes tracking, reviewing and managing the progress and performance of the project along with managing changes when required. The use of Project Status Reports and Root Cause Analysis help identify and resolve problems during project execution. Upon project completion, the Project Closing Process group consists of the processes to formally closeout the project. Once the closing process is completed the project manager receives acceptance from the project sponsor, conducts a post project review, documents the lessons learned and archives all project related documents. A Post-project Review provides a 30,000 feet view of the projects; actual versus planned performance and is meaningful input to future projects. Offered as OPMT 451 and MSOR 451.

MSOR 475. Supply Chain Logistics. 3 Units.
The focus of this course is on the effective management of a firm’s downstream processes in the supply chain that deliver goods and services to customers. Concepts, methods, and strategies are presented that can lower supply chain costs while maintaining or improving customer service. In addition, ideas for using the supply chain for competitive advantage leading to revenue enhancement are discussed. Adding value for customers is the objective. Key topics include transportation planning, inventory management, network design, and customer service goal setting. Offered as MSOR 475 and OPMT 475. Prereq: MSOR 406 and MSOR 433 and enrolled in MSM-Operations Research & Supply Chain program or Requisites Not Met permission.

MSOR 476. Strategic Sourcing. 3 Units.
The primary purpose of the course is to provide a comprehensive introduction to supply issues in manufacturing and service organizations. Procurement and supply management has evolved as a strategic function across various industries. Recent volatility in commodity prices has further enhanced the challenges in procurement. This course explores sourcing strategies in global supply chains to reduce cost and enhance the competitiveness of the firm. This course will provide you with a framework for thinking about strategic sourcing and tools to procure commodities and services efficiently. Offered as MSOR 476 and OPMT 476. Prereq: For MSM-Operations Research & Supply Chain students only.
MSOR 485B. Team Development. 1.5 Unit.
This course is unique in the sense that its primary focus is on the student working in teams. In this course the student will assess their team interaction based on team assignments simulated and action learning type projects, presenting to the class as a team, engaging in various experiential activities, participating one team coaching session, working with a team, and expanding their knowledge of team leadership and membership skills and abilities. They are also expected to engage with projects external to the university (similar to an action learning project). Offered as: MSOR 485B and MSBA 485B. Prereq: For MSM-Operations Research & Supply Chain program or Requisites Not Met permission.

MSOR 487. Operational Excellence. 3 Units.
This course focuses on the essence, principles, and practices of total quality management (TQM) and Operational Excellence. Students learn management issues of identifying, analyzing, and implementing improvement projects in organizations. Topics are mostly non-quantitative with a focus on challenging aspects of quality management that students need to know beyond green belt certification such as learning to see processes better, defining quality ethically, analyzing side effects of change, and leading Kaizen, benchmarking, and brainstorming sessions. The course involves a rigorous real-world project of continuous improvement. Students will also have an opportunity to visit a local plant to get hands on experience with a real Kaizen event. Several guest talks are also scheduled to invite Black Belt professionals to discuss their experiences with quality management in Supply Chain. Offered as MSOR 478 and OPMT 478. Prereq: For MSM-Operations Research & Supply Chain students only.

MSOR 485B. Team Development. 1.5 Unit.
This course is unique in the sense that its primary focus is on the student working in teams. In this course the student will assess their team interaction based on team assignments simulated and action learning type projects, presenting to the class as a team, engaging in various experiential activities, participating one team coaching session, working with a team, and expanding their knowledge of team leadership and membership skills and abilities. They are also expected to engage with projects external to the university (similar to an action learning project). Offered as: MSOR 485B and MSBA 485B. Prereq: For MSM-Operations Research & Supply Chain program or Requisites Not Met permission.

MSOR 492. Python Progr w Appl in Supply Chain. 1.5 Unit.
Python is an object-oriented programming language that can interact with the world wide web as well as Excel and other programming languages like VBA. As such, Python has gained popularity and is becoming an industry standard in many areas, including OR/SC. In addition to assignment, if/then, and for/while statements, in this course you will learn about object-oriented programming and how to implement those ideas with appropriate data structures. You will also learn how to use libraries that others have created, such as Numpy for numerical calculations (like working with vectors, matrices, and solving systems of linear equations). In addition to individual homeworks, you will solve an assigned project in groups and make a final presentation to the class with PowerPoint. Being able to communicate your model and results is part of learning to work effectively with others in an organization, which is a goal of the MSM-OR/SC Program. All of this is designed to enable you to build and solve models that help organizations make good decisions, which is another objective of the MSM-OR/SC Program. Prereq: For MSM-Operations Research and Supply Chain and MSM-Business Analytics students.

OPMT Courses
OPMT 350. Project Management. 3 Units.
Project management is concerned with the management and control of a group of interrelated tasks required to be completed in an efficient and timely manner for the successful accomplishment of the objectives of the project. Since each project is usually unique in terms of task structure, risk characteristics and objectives, the management of projects is significantly different from the management of repetitive processes designed to produce a series of similar products or outputs. Large-scale projects are characterized by a significant commitment of organizational and economic resources coupled with a high degree of uncertainty. The objective of this course is to enhance the ability of participants to respond to the challenges of large-scale projects so that they can be more effective as project managers. We study in detail up-to-date concepts, models, and techniques useful for the evaluation, analysis, management, and control of projects. Offered as MSOR 450, OPMT 350 and OPMT 450. Prereq: OPRE 301.

OPMT 377. Enterprise Resource Planning in the Supply Chain. 3 Units.
Enterprise resource planning is the dominant system by which companies translate the needs from their customers into the detailed plans that the company must perform to meet the customer needs, and the resulting support the company will need from its suppliers. As such, it is a central player in the process of supply chain management. In this course, we study both the quantitative and qualitative concepts and techniques to help manage a company’s operations to perform these important translation and planning tasks in order to help the company be successful. A major emphasis during the course is the design of processes and procedures (algorithms) for solving very complex (wicked) problems as a part of both class discussions and while working on case studies, as well as critiquing the designs so as to clearly understand their limitations. Offered as MSOR 477, OPMT 377 and OPMT 477. Prereq: OPRE 207 and OPRE 301.
OPMT 412. Lean Services Operations. 3 Units.
The course will be delivered over four modules: 1) Service Process Blueprints, 2) Managing Capacity in Service Systems, 3) Mapping the Value Stream (current and future state), and 4) Inventory Management in Service Systems. Its goal is to introduce you to the environments and help you appreciate the problems that operations managers are confronted with. Then, we will typically discuss some system specifics and emphasize the principles and issues that play key role in their management. Offered as HSMC 412 and OPMT 412.

OPMT 420. Six Sigma and Quality Management. 3 Units.
The Six Sigma process is the standard for quality improvement in organizations around the globe. In this course, we study the details of the five steps in the Six Sigma process: DEFINE, MEASURE, ANALYZE, IMPROVE, and CONTROL (DMAIC). Many tools, concepts, and processes that are often an integral part of Six Sigma projects in companies are included in the course content. They range from the very basic tools of quality (such as cause-and-effect diagrams for brainstorming) to complete processes (such as benchmarking, quality function deployment, failure mode and effects analysis-FMEA). Statistical concepts with software applications that are central to Six Sigma including statistical process control and introduction to design of experiments are also included. Once the Six Sigma process and its various components are understood, we study quality management including quality control, quality planning, quality improvement, strategic quality management, and quality strategy. A major requirement of the course is an action learning component in which the students are assigned in groups to work on unpaid real projects of Six Sigma in local industries. Students meeting the required standards of performance will earn a Green Belt Certification in Six Sigma and Quality Management from the Weatherhead School of Management. Offered as MSOR 420 and OPMT 420. Prereq: (MSOR 433 or OPRE 433 or MBAC 511 or MBAP 403 or HSMC 457). Prereq or Coreq: (MSOR 406 or MBAP 408 or MBAC 507 or HSMC 412) or Requisites Not Met permission.

OPMT 422. Lean Operations. 3 Units.
In this course, students will be taught how to identify inefficiencies associated with overproduction, waiting, transport, extra processing, inventory, motion and defects. One-by-one, areas of inefficiencies are to be identified and improved while educating the workforce towards continual improvement. Similarly, participants will be trained to reduce lead times in areas such as engineering design, order entry, purchasing, order fulfillment, receiving, production, packaging, shipping, invoicing and collection. The above improvements will lead to cost reductions. Students will be trained in costing techniques, target pricing, and cost maintenance. The course will be delivered along the following themes: 1) Mapping the Value Stream (current and future state) 2) Workplace Organization: 5S & Safety, 3) Defect Reduction and Error Proofing, 4) Quick Changeover, 5) Standard Operations, 6) Total Productive Maintenance, 7) Visual management, 8) One-piece flow, 9) Lean Metrics. This course is not oriented toward specialists in operations management. Its goal is to introduce you to the environments and help you appreciate the problems that operations managers are confronted with and the key issues in their management. Offered as MSOR 422 and OPMT 422. Prereq: Not available to ORSC-MSM students.

OPMT 450. Project Management. 3 Units.
Project management is concerned with the management and control of a group of interrelated tasks required to be completed in an efficient and timely manner for the successful accomplishment of the objectives of the project. Since each project is usually unique in terms of task structure, risk characteristics and objectives, the management of projects is significantly different from the management of repetitive processes designed to produce a series of similar products or outputs. Large-scale projects are characterized by a significant commitment of organizational and economic resources coupled with a high degree of uncertainty. The objective of this course is to enhance the ability of participants to respond to the challenges of large-scale projects so that they can be more effective as project managers. We study in detail up-to-date concepts, models, and techniques useful for the evaluation, analysis, management, and control of projects. Offered as MSOR 450, OPMT 350 and OPMT 450. Prereq: MBAC 511 or MBAP 403 or HSMC 457 or HSMC 412 or Requisites Not Met permission.
OPMT 451. Project Quality Management. 3 Units.
This course examines various methods used to ensure the project meets the stakeholder needs for which it was undertaken, including quality planning, quality assurance, and quality control. The coursework integrates the project requirements with the project plan, the reporting of its performance, and marking its closure. The Project Planning Process clarifies the project’s objectives and plans as well as all of the activities necessary in order to meet the project’s objectives and scope. It includes the Change Management Plan, Communications Management Plan, Configuration Management Plan, Cost Management Plan, Human Resource Plan such as roles charts, how resources will be acquired, time when each resource will be needed and any specialized training requirements. Project assurance includes the processes that ensure continual project improvement and learning throughout the organization. It includes the steps for analyzing processes with the purpose of improving the process by setting boundaries, process configuration, process metrics and targets for improved performance. Continuous improvement in projects requires determining Relationship Management, Requirements Management, Risk Management and Scope Management Plans. By having a customer management plan you and your customer can have a proven approach to the relationship. Requirements and Risk management plans are necessary to ensure project success as changes take place during the project lifetime. And Scope Management Plans are needs to align scope expectations with project success. The Project Control Group includes the processes to ensure that the project is managed and executed according to the Project Plan. Project Controlling includes tracking, reviewing and managing the progress and performance of the project along with managing changes when required. The use of Project Status Reports and Root Cause Analysis help identify and resolve problems during project execution. Upon project completion, the Project Closing Process group consists of the processes to formally closeout the project. Once the closing process is completed the project manager receives acceptance from the project sponsor, conducts a post project review, documents the lessons learned and archives all project related documents. A Post-project Review provides a 30,000 feet view of the projects; actual versus planned performance and is meaningful input to future projects. Offered as OPMT 451 and MSOR 451.

OPMT 475. Supply Chain Logistics. 3 Units.
The focus of this course is on the effective management of a firm's downstream processes in the supply chain that deliver goods and services to customers. Concepts, methods, and strategies are presented that can lower supply chain costs while maintaining or improving customer service. In addition, ideas for using the supply chain for competitive advantage leading to revenue enhancement are discussed. Adding value for customers is the objective. Key topics include transportation planning, inventory management, network design, and customer service goal setting. Offered as MSOR 475 and OPMT 475. Prereq: (MBAP 408 or MBAC 507) and (MBAC 511 or MBAP 403) or Requisites Not Met permission.

OPMT 477. Enterprise Resource Planning in the Supply Chain. 3 Units.
Enterprise resource planning is the dominant system by which companies translate the needs from their customers into the detailed plans that the company must perform to meet the customer needs, and the resulting support the company will need from its suppliers. As such, it is a central player in the process of supply chain management. In this course, we study both the quantitative and qualitative concepts and techniques to help manage a company's operations to perform these important translation and planning tasks in order to help the company be successful. A major emphasis during the course is the design of processes and procedures (algorithms) for solving very complex (wicked) problems as a part of both class discussions and while working on case studies, as well as critiquing the designs so as to clearly understand their limitations. Offered as MSOR 477, OPMT 377 and OPMT 477. Prereq: MBAC 511 or MBAP 403 or requisites not met permission.

OPMT 478. Operational Excellence. 3 Units.
This course focuses on the essence, principles, and practices of total quality management (TQM) and Operational Excellence. Students learn management issues of identifying, analyzing, and implementing improvement projects in organizations. Topics are mostly non-quantitative with a focus on challenging aspects of quality management that students need to know beyond green belt certification such as learning to see processes better, defining quality ethically, analyzing side effects of change, and leading Kaizen, benchmarking, and brainstorming sessions. The course involves a rigorous real-world project of continuous improvement. Students will also have an opportunity to visit a local plant to get hands on experience with a real Kaizen event. Several guest talks are also scheduled to invite Black Belt professionals to discuss their experiences with quality management in Supply Chain. Offered as MSOR 478 and OPMT 478.

OPMT 490. Independent Study in Operations Management. 1 - 15 Units.
This course is offered, with permission, to students undertaking reading in a field of special interest.

OPMT 501. Special Problems and Topics. 1 - 18 Units.
This course is offered, with permission, to students undertaking reading in a field of special interest.

OPRE Courses

OPRE 207. Statistics for Business and Management Science I. 3 Units.

OPRE 301. Operations Research and Supply Chain Management. 3 Units.
Operations research (OR) or management science, is the discipline of applying advanced quantitative methods to make better decisions. Techniques covered include linear programming, queuing models and simulation. The second part of the course focuses on how OR tools are used in managing various aspects of Supply Chain. Topics covered include demand forecasting, design of distribution systems, capacity planning, and inventory management. Recommended preparation: one semester of statistics or consent of instructor. Prereq: OPRE 207.
OPRE 332. Computer Simulation. 3 Units.
Computer Simulation is a process of designing and creating a computerized model that mimics an existing or proposed system so as to better understand the behavior of the system. Many studies have shown that in industry, simulation is most frequently used Operations Research tool due to its ability to deal with complex systems. The first half of this course is designed to give students a basic idea of simulation methodology with the aid of population simulation software. The emphasis of the course is in simulating business processes, however, the versatility of the technique will be demonstrated with applications from finance, health care, etc. The second half of the course covers the statistical design and analysis of simulation models. The topics include random number generation, input data analysis, statistical analysis of simulation outputs, variance reduction techniques, and design of simulation experiments. Offered as OPRE 332, OPRE 432, and MSOR 432. Prereq: OPRE 301.

OPRE 402. Stochastic Models with Applications. 1.5 Unit.
This course surveys fundamental methods and models in operations research and operations management that incorporate random elements. Topics discussed will include basic results from the theory of stochastic processes, especially Markov chains; an introduction to stochastic dynamic programming; and models in the control of queues and inventories. Offered as OPRE 402 and MSOR 402. Prereq: OPRE 433 and not available to MSM-Operations Research & Supply Chain students.

OPRE 406B. Operations Management Part 2. 1.5 Unit.
Operations managers, ranging from supervisors to vice presidents, are concerned with the production of goods and services. More specifically, they are responsible for designing, running, controlling and improving the systems that accomplish production. This course is a broad-spectrum course with emphasis on techniques helpful to the practice of management at the analyst level. Its goal is to introduce you to the environments, to help you appreciate the problems that operations managers are confronted with, and provide you with the tools to address these problems. Operations Management spans all value-adding activities of an organization including product and process design, production, service delivery, distribution network and customer order management. As global competition in both goods and services increases, a firm's survival depends upon how well it structures its operations to respond quickly to changing consumer needs. Thus, it is essential for all business managers to acquire an understanding of operations management to maintain their competitive advantage. This course provides an overview of Quality management, Material Requirements planning, inventory management, and Supply Chain management. The emphasis of the course is on both real world applications and technical problem solving. Several manufacturing and non-manufacturing environments will be discussed explicitly, like health care, insurance, hotel-management, airlines and government related operations. Also we will explore the interface of operations management with other functional areas such as marketing, finance, accounting, etc. This coursework includes individual and group assignments, case analyses and experiential learning through simulations and educational games. Prereq: MSBA 406A.

OPRE 411. Optimization Modeling. 3 Units.
The first half of the course provides a practical coverage of linear programming, a special type of mathematical model. The art of formulating linear programs is taught through the use of systematic model-building techniques. The simplex algorithm for solving these models is developed from several points of view: geometric, conceptual, algebraic, and economic. The role and uses of duality theory are also presented. Students learn to obtain and interpret a solution from a computer package and how to use the associated output to answer "What-happens-if...?" questions that arise in post-optimality analysis. Specific topics include: problem formulation, geometric and conceptual solution procedures, the simplex algorithm (phase 1 and phase 2), obtaining and interpreting computer output, duality theory, and sensitivity analysis. The second half of this course provides a practical approach to formulating and solving combinatorial optimization problems in the areas of networks, dynamic programming, project management (CPM), integer programming, and nonlinear programming. The art of formulating problems, understanding what is involved in solving them, and obtaining and interpreting the solution from a computer package are shown. A comparison with formulating and solving linear programming problems is provided as a way to understand the advantages and disadvantages of some of these problems and solutions procedures. Recommended preparation: Knowledge of Excel, one semester each of undergraduate linear algebra and undergraduate calculus (derivatives); or consent of instructor. Offered as MSOR 411 and OPRE 411.

OPRE 427. Convexity and Optimization. 3 Units.
Introduction to the theory of convex sets and functions and to the extremes in problems in areas of mathematics where convexity plays a role. Among the topics discussed are basic properties of convex sets (extreme points, facial structure of polytopes), separation theorems, duality and polars, properties of convex functions, minima and maxima of convex functions over convex set, various optimization problems. Offered as MATH 327, MATH 427, and OPRE 427. Prereq: MATH 223 or consent of instructor.

OPRE 432. Computer Simulation. 3 Units.
Computer Simulation is a process of designing and creating a computerized model that mimics an existing or proposed system so as to better understand the behavior of the system. Many studies have shown that in Industry, simulation is most frequently used Operations Research tool due to its ability to deal with complex systems. The first half of this course is designed to give students a basic idea of simulation methodology with the aid of population simulation software. The emphasis of the course is in simulating business processes, however, the versatility of the technique will be demonstrated with applications from finance, health care, etc. The second half of the course covers the statistical design and analysis of simulation models. The topics include random number generation, input data analysis, statistical analysis of simulation outputs, variance reduction techniques, and design of simulation experiments. Offered as OPRE 332, OPRE 432, and MSOR 432. Prereq: Enrollment in a program other than MSM Operations Research.
OPRE 433. Foundations of Probability and Statistics. 3 Units.
Data of many kinds are typically available in practice, but the challenge is to use those data to make effective professional decisions. This software-intensive course begins with useful descriptions of data and the probability theory foundation on which statistics rests. It continues to statistics, including the central limit theorem, which explains why data often appear to be normally distributed, and the Palm-Khintchine theorem which explains why data often appear to have a Poisson distribution. The remainder of the course focuses on regression and forecasting, including detecting and overcoming some of the deadly sins of regression, and the surprising flexibility of regression models. Recommended preparation: One semester of undergraduate calculus or consent of instructor. Offered as MSOR 433, OPRE 433 and MSBA 433.

OPRE 435B. Integrated Problem Solving in OR and SC. 1.5 Unit.
This project-oriented course uses a variety of software to involve the student in the complete problem-solving process in OR and OM. This process includes problem definition and formulation, data collection, and storage in a database, connecting the database to the solution algorithm, designing and implementing an appropriate user interface, and presenting the final solution. Offered as OPRE 435B and MSOR 435B. Prereq or Coreq: OPRE 411 or requisites not met permission.

OPRE 454. Analysis of Algorithms. 3 Units.
This course covers fundamental topics in algorithm design and analysis in depth. Amortized analysis, NP-completeness and reductions, dynamic programming, advanced graph algorithms, string algorithms, geometric algorithms, local search heuristics. Offered as CSDS 410 and OPRE 454. Prereq: OPRE 435A and OPRE 435C.

This course is offered, with permission, to students undertaking reading in a field of special interest.

OPRE 501. Special Problems and Topics. 1 - 36 Units.
This course is offered, with permission, to students undertaking reading in a field of special interest.

ORBH Courses
ORBH 250. Leading People (LEAD I). 3 Units.
The principal goals of this course are to help students learn about the context in which managers and leaders function, gain self-awareness of their own leadership vision and values, understand the options they have for careers in management based on their own aptitudes, orientations and expertise, and develop the fundamental skills needed for success in a chosen career. Through a series of experiential activities, assessment exercises, group discussions, and peer coaching, based on a model of self-directed learning and life-long development, the course helps students understand and formulate their own career and life vision, assess their skills and abilities, and design a development plan to reach their objectives. The course enables students to see how the effective leadership of people contributes to organizational performance and the production of value, and how for many organizations, the effective leadership of people is the driver of competitive advantage. Credit for at most one of ORBH 250 and ORBH 396 can be applied to hours required for graduation. Prereq: At least sophomore standing.

ORBH 251. Leading Organizations (LEAD II). 3 Units.
The principal goal of this course is to help students enhance their leadership skills by understanding how organizations function through the lenses of structure, culture, and power/politics. The course enables students to discern how leaders function effectively as they integrate goals, resources, and people within these constraints. Students learn about these organizational lenses while developing their own leadership and professional skills. Prereq: ORBH 250 or ORBH 396 and at least Sophomore standing.

ORBH 303. Leading Teams through Interpersonal Relationships. 3 Units.
This course is designed for students who want to increase their understanding of interpersonal and team dynamics. It is designed to help you to build more open and effective relationships and to improve your ability to cooperate with and lead others to work effectively in today’s increasingly team-oriented organizations. The emphasis of this course is on learning about oneself in the context of others based on the here-and-now experience of the group. Prereq: At least sophomore standing.

This course is designed to help you develop your leadership skills and capabilities aimed at flourishing, defined as “to grow well, to prosper, to thrive, to live life to the fullest.” It emphasizes the growing desire by people everywhere for greater purpose and well-being through practices that cultivate the self. The goal is changing who leaders are being, not only what they are doing, through daily practices that increase their awareness of how their actions impact others and the world. Through the course, students will learn mindfulness-type practices in an action learning process that allows them to experience a greater connection to self, others, and nature. Recent research shows that such direct-intuitive practices support personal well-being, team collaboration, and organizational resilience as part of an upward spiral in leadership effectiveness and life satisfaction. The most exciting aspect of this class is encouraging students to see themselves as positive change agents, with the ability to make a positive impact on the world through living their most fulfilling and flourishing selves. Offered as ORBH 330 and ORBH 430.

ORBH 360. Independent Study. 1 - 6 Units.
This course is set up individually upon conference between student and Organizational Behavior faculty member designed in consult with the student’s advisor if necessary in order to engage and challenge student with topics in organizational behavior.

ORBH 370. Navigating Gender in Organizations. 3 Units.
The purpose of this course is to prepare students to succeed in the workforce by understanding and exploring the opportunities and challenges of work across the lifespan and developing necessary skills to be effective. The course broadens understanding of gender dynamics and gendered structures in the workplace, intersections of gender with other identities, and the leadership and managerial issues affecting women and men in work organizations. The course helps students create a personal framework for how to develop a successful, happy and integrated work life in the global economy. Offered as ORBH 370 and WGST 370. Counts for CAS Global & Cultural Diversity Requirement.
ORBH 380. Managing Negotiations. 3 Units.
Negotiation is the art and science of securing agreements between two or more interdependent parties. Negotiation skills are critical to influencing others and thus to effective leadership. The good news is that negotiation is a skill that can be developed. In this interactive course, you will learn how to be a more effective negotiator by learning about the theory and processes of negotiation, participating in negotiation simulations, reflecting on your own and others' negotiation experiences and completing assignments designed to help you hone your negotiation skills. This will be done through a variety of means, including: understanding the theory and processes of negotiation, participating in negotiation simulations, reflecting on your own and others' negotiation experiences and completing assignments designed to help you hone your negotiation skills. Prereq: At least sophomore standing.

ORBH 391. Leadership in Diversity and Inclusion: Towards a Globally Inclusive Workplace. 3 Units.
This course addresses workforce diversity issues from individual, group, and organizational perspectives. The focus is on innovative ways of utilizing today's culturally expanding workforce. Emphasis is on the "what and how" for managers in developing a corporate culture that embraces diversity, helping them in learning to work with, supervise and tap the talent of diverse employees within their organizations. Included are methods for modifying systems to attract, retain, develop, and capitalize on benefits of the new workforce demographics. Counts for CAS Global & Cultural Diversity Requirement.

ORBH 396. Professional Development for Engineers. 3 Units.
The overall objective of this course is essentially to help you to learn, grow and change personally and professionally. The course is designed to develop your self-awareness, leadership capability, relationship and collaboration skills. Specific learning objectives are: 1. Develop greater self-awareness around your core values, personal vision, career aspirations, strengths and emotional intelligence. Deepening your self-knowledge and self-awareness on these dimensions is important for setting up your personal path to success. 2. Learn how people develop and grow through a process of intentional change. You will personally apply this insight and create a plan to achieve your learning and development goals. 3. Learn about and experience the impact of personal and peer coaching. Being able to develop, nurture and sustain positive developmental relationships at work is a hallmark of highly effective professionals. 4. Expand your capability to work effectively with a range of people in groups and teams. Understanding and practicing effective communication, giving and receiving feedback and appreciating differences in others are key factors in working well with others. Credit for at most one of ORBH 250 and ORBH 396 can be applied to hours required for graduation. Prereq: Case School of Engineering majors only.

ORBH 403. Developing Interpersonal Skills for Managers. 3 Units.
This course is intended to sharpen students' skills in the art of relating successfully to other individuals and groups. The course uses an intensive group experience to make students more aware of how their actions affect others, more capable of giving and receiving interpersonal feedback, and more cognizant of processes through which groups work. Several Saturday classes.

ORBH 413. Economics of Negotiation and Conflict Resolution. 3 Units.
Students frequently enroll in a negotiation class with one thought in mind—negotiating a better job offer from an employer. They soon learn, however, that negotiation skills can do far more than improve a paycheck. Negotiations occur everywhere: in marriages, in divorces, in small work teams, in large organizations, in getting a job, in losing a job, in deal making, in decision making, in board rooms, and in court rooms. The remarkable thing about negotiations is that, wherever they occur, they are governed by similar principles. The current wave of corporate restructuring makes the study of negotiations especially important for M.B.A.s. Mergers, acquisitions, downsizing and joint ventures call into question well established business and employment relationships. Navigating these choppy waters by building new relationships requires the negotiation skills that you will learn in this class. Offered as ECON 431 and ORBH 413.

ORBH 430. Quantum Leadership: Creating Value for You, Business, and the World. 3 Units.
This course is designed to help you develop your leadership skills and capabilities aimed at flourishing, defined as "to grow well, to prosper, to thrive, to live life to the fullest." It emphasizes the growing desire by people everywhere for greater purpose and well-being through practices that cultivate the self. The goal is changing who leaders are being, not only what they are doing, through daily practices that increase their awareness of how their actions impact others and the world. Through the course, students will learn mindfulness-type practices in an action learning process that allows them to experience a greater connection to self, others, and nature. Recent research shows that such direct-intuitive practices support personal well-being, team collaboration, and organizational resilience as part of an upward spiral in leadership effectiveness and life satisfaction. The most exciting aspect of this class is encouraging students to see themselves as positive change agents, with the ability to make a positive impact on the world through living their most fulfilling and flourishing selves. Offered as ORBH 330 and ORBH 430.

ORBH 450. Executive Leadership. 3 Units.
This course explores answers to questions such as: Who are leaders? Are they different than managers, heroes and heroines? How do the effective ones think and act? What situations create leaders, foster their emergence or provide opportunities? What makes us want to follow them? What are the personal pits of being a leader (i.e., sex, drugs, alcohol, insomnia, ulcers, etc.)? How are leaders developed? Case studies, self-study and at-work projects will be the primary methods used in the course.

ORBH 451. Alternative Dispute Resolution. 3 Units.
Students will examine the processes of alternative dispute resolution (ADR) through reading materials, videotapes, guest lectures, and simulation exercises. Particular emphasis will be given to the interaction of lawyers and clients in business negotiations and in litigation. Negotiation, arbitration, mediation, and the mini-trial will be examined. The class will also cover impediments to ADR, such as lack of understanding or hostility on the part of clients or lawyers.
ORBH 460. Women in Organizations. 3 Units.
This course addresses important leadership and management issues concerning women in organizations. The course provides complex understandings of issues pertinent to professional women and work such as sex role typing, sex-based discrimination, equal pay, sexual harassment, work-family balance, women's leadership and women's career issues and development. The course helps students increase self-knowledge about their own values and practices as well as enhance their capabilities as leaders and managers. We will examine the opportunities, challenges, trade-offs, and organizational dynamics experienced by women in work settings, as well as the interpersonal, organizational, and societal structures and processes impacting women in organizations. Through a variety of course methods, students gain greater awareness of the gendered nature of work and organizations and learn effective strategies for women's career progress and effective participation in organizations.

ORBH 491. Leadership in Diversity and Inclusion: Towards a Globally Inclusive Workplace. 3 Units.
This dynamic course addresses how to enhance diversity, equity and inclusion in the global workplace from individual, group, and organizational perspectives. Using highly interactive and experiential methods, the focus is on innovative ways of recognizing, understanding, and maximizing the potential of today's culturally expanding workforce. The course emphasizes how emerging professionals and managers in organizations can foster a workplace culture that embraces diversity and inclusion, helping them in learning how to most effectively work with, lead, tap the talent of diverse employees within their organizations, and design systems to attract, retain, develop, and capitalize on the benefits of changing global workforce demographics.

ORBH 501. Special Problems and Topics. 1 - 18 Units.
This course is offered, with permission, to students undertaking reading in a field of special interest.

ORBH 510. Organizational Behavior Department Seminar. 1.5 Unit.
The OB Department Seminar is organized and managed by the first year PhD students. Seminar sessions will alternate between first year meetings and gatherings of the ORBH community of students, faculty and friends. Community sessions will be organized around research presentations of PhD Qualifying Papers, Dissertation Proposals and Dissertation Defense. Seminar Objectives: 1. To create and sustain an appreciative, intellectually nourishing learning space for the ORBH community that will support, inspire and empower us to explore the frontiers of scholarship in our field; 2. To provide a forum for sharing the ongoing research and scholarship of the department; 3. To develop productive collaborative research relationships; 4. To increase our collective knowledge of the current state of the art in OB and to develop productive collaborative research relationships; 4. To increase our collective knowledge of the current state of the art in OB and related fields.

ORBH 511. Micro Organizational Behavior. 1.5 Unit.
Examines the field of micro-organizational behavior. Specifically, the study of individuals and groups within an organizational context and the study of internal processes and practices as they affect individuals and groups. Major topics include individual characteristics such as beliefs, values and personality. Individual processes such as motivation, emotions, commitment, group and team processes, such as decision-making; organizational processes and practices such as goal setting, performance appraisal and rewards, and the influence of all of these on such individual, group and organizational outcomes as performance, job satisfaction, citizenship behaviors, turnover, justice, absenteeism and employee engagement.

ORBH 513. Appreciative Inquiry and Strength-Based Change. 1.5 Unit.
This course explores and develops the art of understanding social systems in ways that help us imagine, design and develop organization excellence. It seeks to show how many of our conventional ideas about organizations are based on discourse and metaphors that lead us to see and understand organizations in partial and often limiting ways. Growing research from the domains of Positive Psychology and Positive Organization Scholarship and the theory and practice of Appreciative Inquiry will be explored to show how we can create new and more positive, strength-based ways of designing and developing social systems.

ORBH 516. The Scholarship of Coaching. 1.5 Unit.
Coaching is a helping relationship in which one person assists another with change with respect to a person's behavior, attitudes, mental models, dreams of the future, etc. The popularity of the practice of coaching began to dramatically increase at least 20 years before scholars designed studies to test its efficacy. In this course, we will examine scholarly work in the coaching domain that has emerged. Prereq: Limited to ORBH PhD students only.

ORBH 520. Group and Interpersonal Analysis. 1.5 Unit.
This course is a review of major concepts and research in group dynamics and interpersonal relations. Topics concern face-to-face social interaction such as communication patterns, power, hierarchy, leadership, norms, goals, productivity, social theories of personality, and personal change through group methods. The course combines cognitive emphasis and personal experience-based learning.

ORBH 523. Design for Sustainable Value. 1.5 Unit.
The relationship between business and society—and the search for mutually beneficial advances between industry and the world's most pressing global issues—has become one of the defining issues of the 21st century. Throughout the world, immense entrepreneurial energy is finding expression, energy whose converging force is in direct proportion to the turbulence, crises, and the call of our times. Factories and buildings are being designed in ways that, surprisingly, give back more clean energy to the world than they use. Bottom-of-the-pyramid strategies and micro-enterprise models are demonstrating how business can eradicate poverty through profitability. Companies are designing products that leave behind no waste—only "food" that becomes input into their biological or technological cycles. And macroeconomics—everything from telepresence to megacommunity—is rebooting our capacity for human cooperation and global action. Prereq: Limited to ORBH PhD students only.

ORBH 525. Leading Change from a Complexity Perspective. 1.5 Unit.
Change is an enigma and yet sustained, desirable change (SDC) drivers adaptation, growth and life itself. In this course, we will continuously attempt to answer two questions: (1) What is the process of sustained, desirable change? and (2) What is the role of a leader, including their emotional and social intelligence? Concepts from complexity theory will be used, as well as case studies and longitudinal studies including understanding the multilevel nature of SDC at the individual, dyad, team, organization (including family business), community, country, and global levels. Intentional Change Theory (ICT) will be used as the organizing concept for the changes studied. Prereq: Limited to ORBH PhD students only.
ORBH 528. The Dynamics of Managing Effective Change. 1.5 Unit.
This course explores and develops an understanding of how individuals actually effect positive change and outcomes within an organization without the requisite authority or decision making power to do so. It seeks to show how managing a change process appears to follow a path of cumulative activities that in time produce a punctuated equilibrium—one that triggers a step up in performance. Such activities seem to be small episodes or learning cycles geared at converting inert knowledge into action; increasing awareness; reinforcing accountability, and/or attaining results. These findings will be compared and contrasted to existing change models and theories. Prereq: Limited to ORBH PhD students only.

ORBH 533. The Practice Turn in Organizational Research. 1.5 Unit.
In this course, doctoral students will develop an understanding of the role of practice and performativity in organizing. This involves exploring the link between doing and thinking by and between individuals in an effort to address larger issues of group- and organizational-level behavior. Students will examine elements of human behavior in organizational endeavors such as embodied cognition, and the enactment of structures and routines. Methods of "capturing" practice in organizing will also be discussed. By the end of the course, students will be expected to articulate how the practice perspective relates to their own research interests and future projects. Prereq: Limited to ORBH PhD students only.

ORBH 538. Research and Theory on Dynamical Behavior in Groups. 1.5 Unit.
This seminar exposes student to a variety of conversations in the study of group dynamics. Major topics include work on commons dilemmas, communal and exchange relationships, social facilitation, social loafing, social combination, and social creativity drawing deeply on our historical roots. It will also focus on current topical issues such as demographic faultlines, transactional memory, and issues of time and transition. Prereq: Limited to ORBH PhD students only.

ORBH 540. Social Exchange, Social Networks, and Social Capital in Organizations. 1.5 Unit.
In this course we will examine the nature of social exchange relationships in organizations. We will explore how individual perceptions regarding the quality of the relationship they have with their immediate supervisor, their work group, and the organization as an entity can impact their workplace attitudes and behaviors. Additionally, we will learn how the examination of networks of relationships can enhance our understanding of how individuals experience organizational life. The course will also provide a brief introduction to the theory, methods and procedures of social network analysis with an emphasis on applications to individual and organizational social capital.

ORBH 541. Organizational Systems. 1.5 Unit.
This course covers the use of general systems theory as a conceptual base for examining organizations from the macro-perspective. The course examines organizational structure and technology, organizations and interorganizational networks in interaction with their societal environments, and large-scale problems of organizational and social power, conflict and change. It is designed to present a large-scale perspective on organization theory and behavior that is complementary to the micro-perspective of organizational behavior.

ORBH 560. Research Methods I. 3 Units.
This course concerns itself with issues associated with the conduct of social research. The primary focus is on learning the "craft" of research and its associated technologies. Among the topics that are addressed are: scientific method; research terminology and definitions; search design; laboratory experiments; simulations; field experiments; field studies; measurement, reliability and validity; and sampling. This course is intended to help students acquire the skills necessary in undertaking dissertation-related research.

ORBH 565. Research in Gender and Diversity in Organizations. 1.5 Unit.
This course will provide a full range of feminist research methods exploring relationships between feminism and methodology involving a plurality of perspectives for conducting research and creating knowledge with an emphasis on collecting and interpreting qualitative materials. Particular attention is paid to understanding gender and diversity related phenomenon that occurs in the workplace. Classic feminist research from a variety of historical, societal, economic, interpersonal and organizational paradigms are incorporated. Coreq: ORBH doctoral students only.

ORBH 570. Learning and Development. 1.5 Unit.
This course provides an exploration of the learning and development paradigm underlying the human potential development approach to human resource development. The origins of this approach in the naturalist epistemologies John Dewey's pragmatism, Kurt Lewin's gestalt psychology, the work of James, Follett, Emerson, Piaget, Maslow, Rogers, and others and current research in adult development, biology and brain/ mind research, artificial intelligence, epistemology, moral philosophy and adult learning will be considered. The course will focus on applications of these ideas to current issues in human resource development such as adult learning in higher education, advanced professional development, and large system learning and development. Coreq: ORBH doctoral students only.

ORBH 601. Special Problems and Topics. 1 - 18 Units.
This course is offered, with permission, to candidates undertaking reading in a field of special interest.

ORBH 701. Dissertation Ph.D.. 1 - 9 Units.
(Credit as arranged.) Prereq: Predoctoral research consent or advanced to Ph.D. candidacy milestone.

PLCY Courses

PLCY 399. Business Policy. 3 Units.
This course uses case analysis to develop perspective and judgment on business problems through the integration of functional areas. Formulation, development, and implementation of organization goals and policies, the development of strategy in relation to the competitive environment, and applications of quantitative and behavioral decision-making techniques are examined. Prereq: Senior standing.

PLCY 501. Special Problems and Topics. 1 - 18 Units.
This course is offered, with permission, to students undertaking reading in a field of special interest.

QUMM Course

QUMM 501. Special Problems and Topics. 1 - 18 Units.
This course is offered, with permission, to students undertaking reading in a field of special interest.
BIOS (BIOS)

BIOS 447. Regulatory Affairs for the Biosciences. 1.5 Unit.
This mini-course introduces students to the Food and Drug Administration (FDA) and the laws and regulations it enforces. A scientific regulatory agency with far reaching enforcement authority, FDA is the most powerful consumer protection agency in the world. This course will familiarize students with FDA’s mission, philosophy and organizational structure, as well as policy and procedure it uses to ensure the safety and effectiveness of the food, drugs, biologics, cosmetics, medical devices and radiation-emitting products it regulates. Recommended preparation: Enrollment in the MEM Biomedical Entrepreneurship Track. Offered as BIOS 447, HSMC 447, and IIME 447.

IPOD (IPOD)

IPOD 440. Inclusive Leadership in the Global Context. 3 Units.
The purpose of this course is to help you understand the current theories and effective practices of inclusive leadership in a global context, and through this understanding, to help you enhance your own leadership practices and capabilities. We will examine the methods, challenges, trade-offs, and frontiers of inclusive leadership through application of leadership concepts to case studies. Student teams will identify and conduct an at-a-distance project studying a global executive. The course will facilitate the development of personal efficacy for working with and supervising diverse others those from different nations/cultures, races/ethnicities, genders, age groups, religions and lifestyles who may have different values, perspectives, approaches and abilities. As you gain self-awareness of the impact of your own identity, you will clarify your own approaches and styles and become more authentic as a leader and change agent. You will also develop practical knowledge about enabling team cultures of engagement and inclusion. Prereq: Open to MPOD in India (IPOD) students only.