## Requirements for MBA Students





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# Become a leader in today's highly competitive world of Operations

Administered by the Stephen M. Ross School of Business, the two-year MBA degree, coupled with the Tauber Institute's Global Operations, prepares students to assume leadership positions in operations or consulting functions of a wide range of industries such as high-tech, energy, consumer products, or healthcare. Students generally complete the 57 graduate hour MBA requirements in four terms of full-time study and have the flexibility to complete their Tauber requirements by choosing from a variety of electives. Students participate in an actionbased 14-week paid multidisciplinary, collaborative project during the summer following their first year of study.

#### **Academic Requirements**

#### **MBA Core**

**Topics in Global Operations** 

TO 701 | 1.5 hours | Fall A Term

#### **Manufacturing and Supply Operations**

TO 605 | 3 hours | Fall B & Winter A Terms; Taken in place of the required 2.25 hour core Operations course | TO 552.

#### **Tauber Team Project**

TO 703 | 3 hours | Fall B & Winter A Terms; Register for 1.5 hours in Winter Term and 1.5 hours in the subsequent Fall Term.

#### LeadershipAdvantage<sup>™</sup> Program

Outside the classroom modules during Fall and Winter Terms, prior to the team project. Designed to increase workplace performance, specialized modules develop leaders through project management certification, professional skills assessment, team dynamics, and coaching, as well as lectures that include leveraging effective business relationships, communication skills, and change management.

#### **Facility Tours**

All students complete facility tours prior to the team project that provide an insider's perspective into diverse operations.

#### 3 hours from the following courses:

- Integrated Product Development | TO 548 | 6 hrs.
- Innovation in Global Health Delivery | TO 563 | 1.5 hrs.
- Action Learning Projects | TO 582 | can count 3 hrs. toward Tauber requirements.
- Project Management | TO 616 | 1.5 hrs.
- Supply Chain Analytics | TO 618 | 3 hrs.
- Global Supply Chain Management | TO 620 | 2.25 hrs.
- Logistics | TO 621 | 2.25 hrs.
- Information Technology Strategy in Supply Chain and Logistics | TO 623 | 1.5 hrs.
- Strategic Sourcing | TO 624 | 2.25 hrs.
- Advanced Big Data Analytics | TO 628 | 2.25 hrs.
- Big Data Management: Tools and Techniques | TO 640 | 2.25 hrs.
- Special Topics in Supply Chain Management | TO 735 | 1.5 hrs.

#### **Engineering Elective Courses**

- Tauber MBA students select five, and no more than 10, hours of College of Engineering electives to enhance education experiences.
- Waivers will be granted to students who have taken graduate level courses in topic areas covered by engineering electives, pending approval by the Tauber Institute co-directors.



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### Day MBA Template with Tauber Curriculum

FIRST YEAR—FALL TERM COURSES		FIRST YEAR—WINTER TERM COURSES		
FALL-A	-A FALL-B WINTER		WINTER-B	
ACC 502 Principals of Financial Accounting 2.25 hrs.	FIN 503 Financial Management 2.25 hrs.	ACC 552 Management Accounting 1.5 hrs.	<b>BA 553</b> Multidisciplinary Action Project 7.5 hrs.	
<b>BE 502</b> Applied Microeconomics 2.25 hrs.	MKT 503 Marketing Management 2.25 hrs.	<b>Tauber Required Class TO 703</b> <sup>b</sup> Tauber Team Project 1.5 hrs.		
<b>STRATEGY 502</b> Corporate Strategy 2.25 hrs.	<b>MO 503</b> Leading People and Organizations 2.25 hrs.	<b>Optional Elective</b> <sup>d</sup> 1.5–2.5 hrs.		
<b>TO 502</b> Applied Business Statistics 2.25 hrs.	<b>TO 605</b> ° Manufacturing and Supply Operations 3 hrs.	5		
<b>Tauber Required Class TO 701</b> Topics in Global Operations 1.5 hrs.				

SECOND YEAR—FALL TERM COURSES		SECOND YEAR—WINTER TERM COURSES		
FALL-A	FALL-B	WINTER-A	WINTER-B	
<b>Tauber Required Class TO 703</b> <sup>b</sup> Tauber Team Project   1.5 hrs.	ELECTIVE	Tauber ENGINEERING ELECTIVE <sup>d</sup>   2–3 hrs.		
Tauber TO Elective <sup>c</sup>		ELECTIVE		
Tauber ENGINEERING ELECTIVE <sup>d</sup>   2–3 hrs.		ELECTIVE		
ELECTIVE		ELECTIVE		
ELECTIVE		ELECTIVE		

a Tauber students waive the 2.25 hour Technology Operations core class and take the 3 hour Manufacturing and Supply Operations (required) instead.

b Completed during the summer; register for 1.5 hours in the Winter Term and 1.5 hours in the subsequent Fall Term.

c Three hours from among these classes is required for Tauber students: T0 548, T0 563, T0 582, T0 616, T0 618, T0 620, T0 621, T0 624, or T0 735.

d Students must complete at least five and no more than 10 hours of College of Engineering electives.

NOTES

1. Law/Ethics students must elect either an Ethics or Business Law course at some time during the MBA program.

- 2. Communications Requirement: MBA students must fulfill a Communication Requirement.
- 3. STRATEGY 503—World Economy (1.5 hours) must be completed at some time during the MBA program.

4. MBA students may broaden their experience by electing up to 10 hours of graduate study in other units of the University of Michigan. For Tauber MBA students, CoE elective courses count toward this 10-hour limit.

## **Tauber Team Projects**

The capstone to the Tauber Institute for Global Operations, this 14-week consulting-style internship gives a team of engineering and business students the opportunity to deliver high impact results to an industry-leading company.

Team projects are highly visible operations-related challenges with both engineering and business components. A successful project results in a significant return on a sponsoring company's investment. The projects have historically delivered significant financial savings as well as improvements in areas such as CO2 emissions, energy consumption, throughput time, and supply chain risk.

#### **Quick Facts**

- Executive level support and dedicated team of faculty, and expert communication and team dynamics coaches
- · Multidisciplinary business/engineering team-based experience
- High placement rates with companies
- · Competitive salaries

## **Recommended Engineering Electives**



#### **Make A Big Impact!**

Companies value our students and give them important challenges. Students analyze problems, propose solutions, and in most cases, implement their recommendations.

2019 1st place Spotligtht! team, Ford Motor Company, Charlie Manzoni (MBA) and Hiroki Tanaka (MBA). The 2019 Tauber team worked with the Advanced Manufacturing Center out of Ford's new Redford facility to develop an artificial intelligence-enabled tool that will automate and optimize the allocation planning process.

Any graduate level engineering course can count toward the Tauber engineering elective. The following courses are recommended by the Tauber Institute to the student looking for broader understanding of current operations, supply chain or manufacturing topics. Some courses may have prerequisites.

NUMBER	COURSE NAME	HOURS	SEMESTER
IOE 413	Optimization Modeling in Health Care	3.0	Fall
IOE 416	Queuing Systems	2.0	Winter
IOE 425	Manufacturing Strategies ("Lean Manufacturing")	2.0	Fall, Winter
IOE 447   MFG 447	Facility Planning	3.0	Fall
IOE 449	Material Handling Systems	2.0	Winter
ME 455	Analytical Product Design	3.0	Fall
IOE 461	Quality Engineering Principles & Analysis ("Six Sigma")	3.0	Fall
IOE 522	Theories of Administration	3.0	Winter
IOE 524	Integrative Technology Management	3.0	Winter
IOE 539	Safety Engineering Methods	3.0	Fall
IOE 543	Scheduling	3.0	Winter
IOE 548   TO 548	Integrated Product Development <sup>1</sup>	6.0	Fall
IOE 549	Plant Flow Systems	3.0	Winter
ME 401   MFG 402	Statistical Quality Control & Design	3.0	Winter
ME 558   MFG 558	Discrete Design Optimization	3.0	Winter
ME 581	Global Product Development	3.0	Fall
ME 587	Reconfigurable Manufacturing for Market Responsiveness	3.0	Winter
ME 589	Sustainable Design, Technology, and Environmental Systems	3.0	Fall
ME 599	Management for Sustainable Manufacturing	3.0	Fall

1 Students should register for both T0548 (3 hours) and IOE 548 (3 hours) and will receive 6 hours for the course; 3 hours count toward the Tauber engineering elective requirement and 3 hours toward the business elective requirements.

NOTE: A maximum of 6 hours of 400-level graduate courses are allowed toward the MBA. All other graduate courses must be 500-level or above.



## **Frequently Asked Questions**

#### Q: Why should I choose the Stephen M. Ross School of Business over other schools with Operations/Supply Chain/ Manufacturing programs?

A: The Ross difference is action-based learning. It's an approach to business education that requires us to continuously create relevant, challenging ways to connect our students with the world of practice. Many of our students choose Ross and Tauber because of the flexibility of the program and degree options that are not available with other programs, as well as the caliber of the people they meet here (students, faculty, practitioners, company sponsors). Many employers state that the paid team projects are unmatched in guality and results and those students are superbly prepared for these internships. Students choose Ross because it is a clear leader in terms of fit, curriculum, and its emphasis on the real world application of their business education.

#### Q: Will it take longer to get my MBA degree if I join the Tauber Institute because of additional course requirements?

A: No. Since the Tauber Institute program is an overlay to the MBA degree, you use some of your 30 credit hours of free electives to fulfill our program requirements and graduate in four semesters.

# Q: Do I need to have an undergraduate degree in engineering to apply to the Tauber Institute?

A: No. Although the majority of Tauber students have a quantitative undergraduate degree, many have backgrounds in business, science, or other fields. A common thread among all students is a desire to be leaders in Operations, General Management, or Operations/IT related consulting.

#### Q: Are there two admission decisions made on Tauber applicants—one from the Stephen M. Ross School of Business and one from the Tauber Institute?

A: Yes, there are two admission decisions. However, a student not admitted to Tauber may still be admitted to Ross.

#### Q: What is the difference between the MBA with Tauber Institute for Global Operations and a dual MBA/MEM or MBA/MEng?

- A: The Tauber Institute for Global Operations provides for a deep understanding of operations, including supply chain, quality, and operations strategy. The dual degree programs award two degrees and require fulfilling requirements of both, which typically means a deeper dive into engineering disciplines. The dual degree programs are still arranged so that they can be finished in two years.
- Q: In addition to the Stephen M. Ross School of Business application, do I need to submit a separate application or essay directly to the Tauber Institute?
- A: Not if you are applying in conjunction with your MBA application (that is, you've checked the "Tauber Institute box" on the first page of the Ross application). You should utilize your Ross essays to communicate your interest in the Tauber Institute.

If you've already applied and/or been admitted to the Ross program and did not check the Tauber Institute box on the application, then you do need to fill out a Tauber application (under the Prospective Students section at www.tauber.umich.edu) and e-mail (tauberinstitute@umich.edu) or fax to our office (734-647-1334) along with a copy of your resume and essay. We will request a copy of your application from Ross.

## Q: Is an interview required for the Tauber Institute admissions process?

A: Yes, an interview with the Tauber Institute is required as part of the admissions process. Interviews are conducted in-person and by Skype. Interviews are by invitation only.

#### 2019 Employers

A.T. Kearney Amazon **Bain & Company** Bank of America **Boeing Company Boston Consulting Group** Brunswick Cargill Strategy and M&A Dell Inc. Deloitte **DTE Energy** Google Huron Consulting Group IDEX Invenergy JP Morgan Chase Kraft Heinz LPixel Inc. McKinsey & Co. Medtronic **Microsoft Corporation** National Renewable Energy Lab Nike Northrop Grumman Corporation PA Consulting Safran USA Shift Sigma SkySpecs Stanley Black & Decker Stoneridge Inc. Target **Tata Consultancy Services Uber Technologies** Varsity Tutors Walmart **ZS** Associates

Base Salaries Tauber Institute Class of 2019 Graduate MBA Students

FUNCTION		BASE		SIGNING BONUS		
	Average	Median	Min	Max	%	Median
MBA 26 of 32 responding						
Consulting	\$157,600	\$158,000	\$150,000	\$165,000	100%	\$25,000
General Management	\$123,583	\$125,000	\$115,000	\$130,000	100%	\$22,000
Operations/Supply Chain Management	\$110,833	\$119,000	\$85,000	\$130,000	33%	\$10,000
Other	\$96,667	\$90,000	\$80,000	\$120,000	33%	\$30,000



