

# Requirements for MBA Students



*Alec Cohen (MSE-IOE '13), Daniel Djerf (MSCM '12), and Jessica Skinner (MBA '13) work on plotting the developmental tasks in a design structure matrix (DSM) to advance the Idea-to-Market product development process for their 2012 Amway team project in Ada, Michigan. Photographer D. Cendrowski.*

## 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 Concentration, prepares students to assume leadership positions in operations or consulting functions and to move toward general management positions. 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 a 14-week paid team project during the summer following the 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.

##### LeadershipAdvantage<sup>SM</sup> Program

Outside the classroom modules during Fall and Winter Terms, prior to the team project.

##### Facility Tours

All students are required to complete four facility tours prior to the team project.

##### 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.

#### 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 | 3 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.
- Revenue Management | TO 649 | 2.25 hrs.
- Special Topics in Supply Chain Management | TO 735 | 1.5 hrs.

#### Engineering Elective Courses

- Tauber MBA students must complete five and no more than 10 hours of College of Engineering electives.
- 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 Requirements

FIRST YEAR—FALL TERM COURSES		FIRST YEAR—WINTER TERM COURSES	
FALL–A	FALL–B	WINTER–A	WINTER–B
<b>ACC 502</b> Principals of Financial Accounting 2.25 hrs.	<b>FIN 503</b> Financial Management 2.25 hrs.	<b>ACC 552</b> Management Accounting 2.25 hrs.	<b>BA 553</b> Multidisciplinary Action Project 2.25 hrs.
<b>BE 502</b> Applied Microeconomics 2.25 hrs.	<b>MKT 503</b> Marketing Management 2.25 hrs.	<b>Tauber Required Class TO 703<sup>b</sup></b> 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<sup>d</sup></b> 1.5–2.5 hrs.	
<b>TO 502</b> Applied Business Statistics 2.25 hrs.	<b>TO 605<sup>a</sup></b> Manufacturing and Supply Operations 3 hrs.		
<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<sup>b</sup></b> Tauber Team Project   1.5 hrs.	<b>ELECTIVE</b>	<b>Tauber ENGINEERING ELECTIVE<sup>d</sup></b>   2–3 hrs.	
<b>Tauber TO Elective<sup>c</sup></b>		<b>ELECTIVE</b>	
<b>Tauber ENGINEERING ELECTIVE<sup>d</sup></b>   2–3 hrs.		<b>ELECTIVE</b>	
<b>ELECTIVE</b>		<b>ELECTIVE</b>	
<b>ELECTIVE</b>		<b>ELECTIVE</b>	

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

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

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

<sup>d</sup> 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 Institute Approved Engineering Electives for MBAs

### Any graduate level engineering course

(with the exception of the five courses listed below which significantly overlap Business School core courses) can count toward the Tauber engineering elective requirement. Please be aware that some of the courses listed on the next page may have prerequisites which must be fulfilled. Prerequisites will not be counted toward the Tauber requirement. Also, the Tauber institute cannot guarantee every course listed will be offered every year.

### Prohibited Engineering Electives

Students are discouraged from taking any of the five graduate courses listed on the right since they significantly overlap with Business School core courses.

NUMBER	COURSE NAME
IOE 422	Entrepreneurship
IOE 424	Practicum in Production and Service Systems
IOE 440   MFG 440	Operations Analysis and Management
IOE 441   MFG 441	Production and Inventory Control
IOE 452   MFG 455	Corporate Finance



Kelly Bayer (MBA '13) and Zack Moscot (BFA '13) of the "Streets of the D" Chainring by Motor City Cycles 2012 IPD team. Photographer: P. Dattilo

“ Tauber does an amazing job working with project sponsors to define significant projects, with executive exposure, that make a real business impact. As a result, the Tauber internship put me in a different class among my Ross classmates and truly helped differentiate my resume. ”

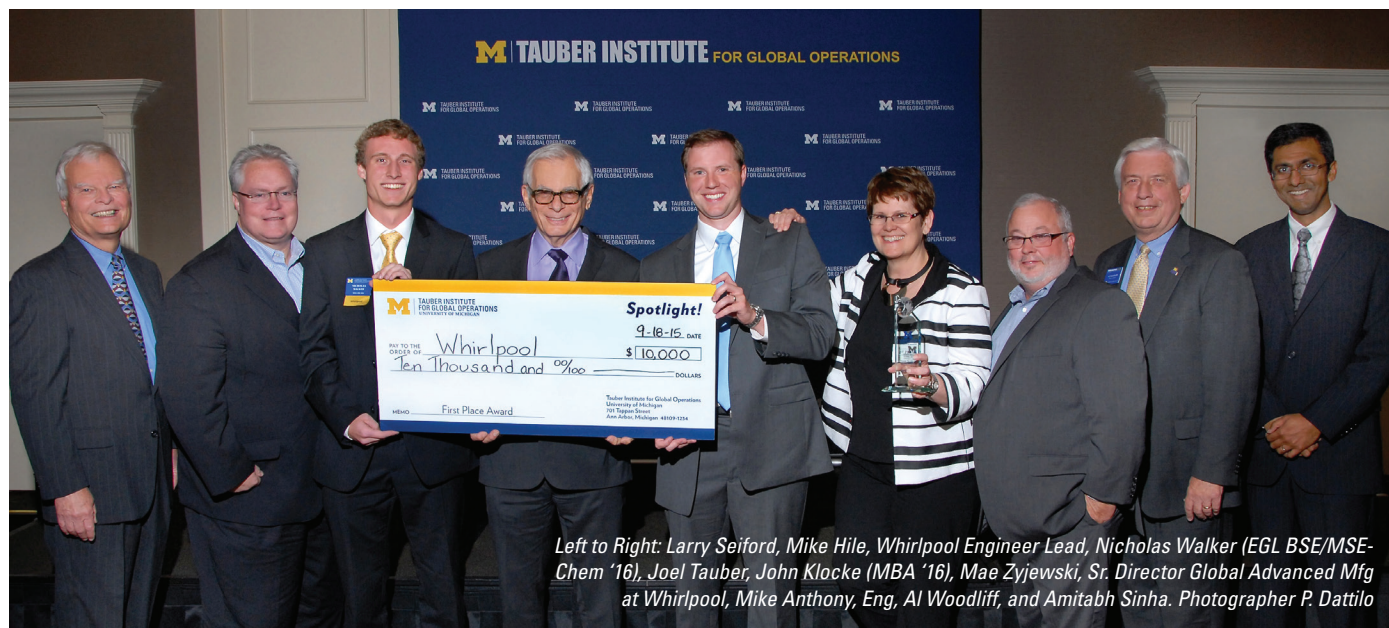
Michael Cooper, MBA '15,  
2014 *Spotlight!* 2nd Place Recipient, Amazon

Michael Cooper (MBA '15) and Nikki Haven (EGL BSE-IOE/MSE-IOE '15).  
Photographer: N. Haven





## Recommended Engineering Electives



Left to Right: Larry Seiford, Mike Hile, Whirlpool Engineer Lead, Nicholas Walker (EGL BSE/MSE-Chem '16), Joel Tauber, John Klocke (MBA '16), Mae Zyjewski, Sr. Director Global Advanced Mfg at Whirlpool, Mike Anthony, Eng, Al Woodliff, and Amitabh Sinha. Photographer P. Dattilo

The following courses are recommended by the Tauber Institute to the student looking for a broader understanding of current operations, supply chain, or manufacturing topics.

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

<sup>1</sup> Students should register for both TO548 (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.