

## Mechanical Engineering - Enterprise Enrollment Guidelines – March 2012

Enterprise project work (ENT3950/3960/4950/4960) and other Enterprise Concentration requirements (ENT2961-Teaming, ENT2962-Communication Contexts, and Enterprise Modules) are required for students completing the BSME-Enterprise Concentration as shown on the **BSME-Enterprise Concentration flowchart**. Students may enroll in enterprise project work (e.g., ENT2950) and participate on an enterprise team prior to declaring the Enterprise Concentration. If the student decides not to pursue the Enterprise Concentration, any enterprise project credits can be used as free electives in the BSME. ENT2961 and/or ENT2962 can be used as HASS Distribution general education credit from the HASS Supplemental list provided that the three-credit maximum from that sub-list has not already been met. If the student chooses to pursue the Enterprise Concentration, he/she must complete and sign a Curriculum Add/Drop form with an ME academic advisor to add the Enterprise Concentration.

Suggested enterprise teams for mechanical engineering undergraduate students are shown below. It is possible for an ME student to participate on other enterprise teams provided the student's planned project work for ENT4950 and ENT4960 meets the capstone requirements dictated by the ME-EM department to satisfy ABET (accreditation) requirements.

The minimum enterprise team participation for ME students completing the BSME-Enterprise Concentration is four project semesters (ENT 3950/3960/4950/4960) with the same enterprise team. Three one-credit Enterprise Modules are also required. ENT 2961 (Teaming) and ENT 2962 (Communication Contexts) are required and count for three credits of Supplemental HASS General Education Distribution. Students may substitute HU 3120 or CM 3410 for ENT2961/2 by contacting the ME Advising Center. HU3120 and CM3410 are also on the HASS supplemental list. Refer to the **BSME-Enterprise Concentration flowchart notes (reverse/page 2 of flowchart)** for more details. All required forms and templates are shown in the appendix of this document and are available on the wall outside the ME Advising Center (204/205 ME-EM) and at [www.me.mtu.edu/advising](http://www.me.mtu.edu/advising).

**ME-EM faculty advised or ME-focused Enterprises** (i.e., should have projects available that meet ME enterprise capstone criteria)

**Advanced Metalworks (AME, L01)** – Advisor: Dr. Paul Sanders, M&M 603, [sanders@mtu.edu](mailto:sanders@mtu.edu)

<http://ame.enterprise.mtu.edu/> Component design/modeling, fabrication (machining, casting, wrought processing), and performance characterization (microstructure, mechanical properties). We primarily work on industry-sponsored projects related to machining, casting, and wrought processing of metals and metallic components. We fabricate patterns for sand molding, permanent molds, dies for die-casting, and specialized testing equipment for our sponsors and other enterprises on campus.

*Registration:* Instructor (enterprise advisor) approval. Submit a signed Mechanical Engineering Undergraduate Enterprise Enrollment (Enterprise Advisor) Approval form to register for each project semester course.

**Aerospace (L21)** – Advisor: Dr. Brad King, MEEM 1014, [lbking@mtu.edu](mailto:lbking@mtu.edu)

<http://www.aerospace.mtu.edu/> Invent and build spacecraft and gliders with an emphasis on systems engineering in the areas of avionics, propulsion, rocket design, and aerodynamics. Combination of competition and industry-sponsored projects.

*Registration:* Register for appropriate section. No instructor (enterprise advisor) approval required.

**Baja SAE (Blizzard Baja, L06)** – Advisor: Dr. Brett Hamlin, Dillman 104C, [bhhamlin@mtu.edu](mailto:bhhamlin@mtu.edu)

<http://baja.eit.mtu.edu/> Design and fabricate an off-road vehicle for competition with a focus on frame, chassis, and suspension improvements. Competition based on performance, manufacturability, cost, and ergonomics.

*Registration:* To join the enterprise for the first time, submit a resume and a personal statement (why you want to join Baja and description of your intended contribution to the team) to the enterprise advisor. If approved by the enterprise executive board, contact the instructor to sign the Mechanical Engineering Undergraduate Enterprise Enrollment (Enterprise Advisor) Approval form to register for each project semester course. Student must be in good academic standing (i.e. not on academic probation) to be registered for project credit.

**Blue Marble Security (L02)** – Advisor: Mr. Glen Archer, EERC 629, [gearcher@mtu.edu](mailto:gearcher@mtu.edu)

<http://www.bluemarblesecurity.com/> Working to develop security solutions for people in their homes, for local governments to protect their communities, for industries to protect their workers and their infrastructure, and for international markets. Additionally, developing initiatives in counter-surveillance, imaging solutions, environmental monitoring, and industrial process control.

*Registration:* Instructor (enterprise advisor) approval. Submit a signed Mechanical Engineering Undergraduate Enterprise Enrollment (Enterprise Advisor) Approval form to register for each project semester course.

**Board Sport Technologies (BST, L11)** – Advisor: Dr. Ibrahim Miskioglu, MEEM 1009, imiski@mtu.edu

<http://www.enterprise.mtu.edu/boardsports/> Invent innovative boarding designs, materials, and processes in the construction of boards and associated structures/products for a variety of board sports such as snowboarding, wakeboarding, and skateboarding. Work on industry-sponsored innovation projects. Also design terrain park obstacles and grooming equipment for board sports.  
*Registration:* To join the enterprise for the first time, submit a resume and a personal statement (why you want to join BST and description of your intended contribution to the team) to the enterprise advisor. If approved by the enterprise executive board, contact the instructor to sign the Mechanical Engineering Undergraduate Enterprise Enrollment (Enterprise Advisor) Approval form to register for each project semester course. Student must be in good academic standing (i.e. not on academic probation) to be registered for project credit.

**SAE Clean Snowmobile Challenge (L07)** – Advisor: Dr. Jason Blough, MEEM 1020A, jrblough@mtu.edu

<http://www.enterprise.mtu.edu/csc/> Design and modify a snowmobile to achieve reduction in emissions and noise levels while maintaining high performance and fuel efficiency. Compete in both reduced and zero emission (all-electric) divisions.  
*Registration:* To join the enterprise for the first time, submit a resume and a personal statement (why you want to join Clean Snow and description of your intended contribution to the team) to the enterprise advisor. If approved by the enterprise executive board, contact the instructor to sign the Mechanical Engineering Undergraduate Enterprise Enrollment (Enterprise Advisor) Approval form to register for each project semester course. Student must be in good academic standing (i.e. not on academic probation) to be registered for project credit.

**Formula SAE Racing Team (FSAE, L05)** – Advisor: Dr. Jim DeClerck, MEEM 825, jdeclerck@mtu.edu

<http://www.fsae.mtu.edu/> Design and build an Indy-style race car for competition with a focus on optimization of chassis, frame, wheel, and engine design. Competition includes both racing performance and design components.  
*Registration:* To join the enterprise for the first time, submit a resume and a personal statement (why you want to join FSAE and description of your intended contribution to the team) to the enterprise advisor. If approved by the enterprise executive board, contact the instructor to sign the Mechanical Engineering Undergraduate Enterprise Enrollment (Enterprise Advisor) Approval form to register for each project semester course. Student must be in good academic standing (i.e. not on academic probation) to be registered for project credit.

**Hybrid Electric Vehicle (HEV, L04)**

Co-coordinator: Mr. Bob Page, MEEM 604A, rwpag@mtu.edu; Co-coordinator: Mr. John Lukowski, EERC 233, jtlukows@mtu.edu  
<http://hev.enterprise.mtu.edu/> HEV Enterprise is a multidisciplinary team that will design and build an advanced technology hybrid electric vehicle. Design objective is to modify the powertrain to achieve over 60 mpg fuel economy while preserving vehicle functionality, safety, and performance. Program involves modification of a donated production General Motors vehicle and focuses on maintaining vehicle marketability while achieving environmental impact goals. Vehicle performance will be demonstrated to a select group of industry professionals in a "Chief Engineer's Challenge". **HEV students must declare and pursue the Certificate in Hybrid Electric Drive Vehicle Engineering (CHEV).** Please see Marlene Lappeus (certificate advisor) for more information. Marlene is located in the main ME-EM dept office on the 8<sup>th</sup> floor of the MEEM building.

*Registration:* To join the enterprise for the first time, submit a resume and a personal statement (why you want to join HEV and description of your intended contribution to the team) to the enterprise advisor. If approved by the enterprise executive board, contact the instructor to sign the Mechanical Engineering Undergraduate Enterprise Enrollment (Enterprise Advisor) Approval form to register for each project semester course. Student must be in good academic standing (i.e. not on academic probation) to be registered for project credit.

**SAE Supermileage Systems (L13)** – Advisor: Mr. Rick Berkey, M&M 722, rjberkey@mtu.edu

<http://www.enterprise.mtu.edu/SSE/> Development and construction of a single-person, fuel-efficient vehicle for the SAE Supermileage competition, powered by a small four-cycle engine. Supermileage is a multidisciplinary student-led organization where team members gain valuable experience in leadership, project management, and vehicle development including body/chassis, powertrain, and electrical/controls.

*Registration:* To join the enterprise for the first time, submit a resume and a personal statement (why you want to join Supermileage and description of your intended contribution to the team) to the enterprise advisor. If approved by the enterprise executive board, contact the instructor to sign the Mechanical Engineering Undergraduate Enterprise Enrollment (Enterprise Advisor) Approval form to register for each project semester course. Student must be in good academic standing (i.e. not on academic probation) to be registered for project credit.

**Velovations (L31)** – Advisor: Dr. John Gershenson, MEEM 1022, jkgershe@mtu.edu

<http://www.enterprise.mtu.edu/velovations/> Collaborating with the bicycle industry working on sponsored projects to develop new products and processes. Focus on product development from customer need, through product/process design and testing, manufacturing, supply chain management, marketing, and distribution.

*Registration:* Instructor (enterprise advisor) approval. Submit a signed Mechanical Engineering Undergraduate Enterprise Enrollment (Enterprise Advisor) Approval form to register for each project semester course.

### **Additional Suggested Enterprise teams (Abbreviation, Home Department) – Verify that ME project work is/will be available**

- Alternative Fuels Group (AFG, Chemical Engineering)
- Consumer Product Manufacturing (CPM, Chemical Engineering)
- International Business Ventures (IBV, Institute for Interdisciplinary Studies)
- Nanotech Innovations (Physics)
- FIRST Robotic Systems (School of Technology)
- Transportation (Civil & Environmental Engineering)
- Wireless Communication (WCE, Electrical & Computer Engineering)

Other enterprise teams may have acceptable capstone project work for ME students, but students must verify this prior to starting ENT3950 with the enterprise advisor. Consultation with the ME-EM department for evaluation of possible projects is highly recommended.

Team web pages available through <http://www.mtu.edu/enterprise/>

### **Declaring the Enterprise Concentration**

Students must declare the BSME-Enterprise Concentration with an ME academic advisor using the Curriculum Add/Drop form. This will ensure that the BSME-Enterprise Concentration audit is used to verify graduation requirements. The original form will be filed with the Registrar and input into the student database. A copy will be retained in the student's file in the ME Advising Center and a copy can be given to the student. Curricular changes will be reflected in BanWeb for the current semester if the form is filed by Wednesday of week 2 of that semester, otherwise it will be reflected in the following semester. The change will be reflected immediately in the Degree Audit Reporting System (DARS).

## **Project Credit Courses**

### **Getting Started**

- ENT 1960 – Project work (first semester of team-specific enterprise participation) – 1 credit. Intended for second semester of the first year. Only applies to BSME degree as free elective (does not apply to BSME-Enterprise Concentration requirements). May be required to meet team-specific criteria prior to enrollment.

### **Project semesters not required for BSME Enterprise concentration (>2 year minimum commitment to team)**

- ENT 2950 – Project work – 1 credit. Intended for first semester of the second year and/or when a student has six semesters remaining until graduation. May be used as an Enterprise Module. May be required to meet team-specific criteria prior to enrollment.
- ENT 2960 – Project work – 1 credit. Intended for second semester of the second year and/or when a student has five semesters remaining until graduation. May be used as an Enterprise Module. May be required to meet team-specific criteria prior to enrollment.
- ENT 3980 – Project work – 1 credit. Pre-capstone project semester. Intended for students that have completed ENT3950 and ENT3960 with the same enterprise team, but lack the required pre-reqs to enroll in ENT4950. May be used as an Enterprise Module. May be required to meet team-specific criteria prior to enrollment.

### **Project semesters required for the BSME-Enterprise Concentration (must be with the same Enterprise team)**

- ENT 3950 – Project work – 1 credit. Intended for first semester of the third year and/or when a student has four semesters remaining until graduation. May be required to meet team-specific criteria prior to enrollment.
- ENT 3960 – Project work – 1 credit. Intended for second semester of third year and/or with three semesters remaining until graduation. Students must register for MEEM 3900 when registering ENT 3960 (if not already completed), and register for or be set up for other capstone design readiness requirements required for ENT4950 (see below and flow chart).
- ENT 4950 – Project work – 2 credits. **The following are required prior to be registered in ENT4950.**
  1. **Satisfy pre-requisite requirements: MEEM3900, MEEM3000 (concurrent pre-requisite), MEEM3502 (concurrent pre-requisite), and ENT3950/ENT3960 in same enterprise.**
  2. **Fully approved Verification of Senior Design Objectives through Enterprise Experience form (see appendix).**
- ENT 4960 – Project work – 2 credits. The above project submission will also define the second senior design project semester, although separate enterprise advisor approval may be required for ENT4960 registration.

- **NOTES:**

- **The four required project semesters are not necessarily required to be completed in consecutive semesters.** Any semesters of non-participation due to co-op, study abroad, etc. should be coordinated by the student with the enterprise advisor.
- Amended Verification of Senior Design Objectives through Enterprise Experience forms should be prepared and submitted to the ME Advising Center as appropriate if major changes to the approved scope or deliverables of the project are made during either senior design project semester. These changes will also require ME-EM department review and approval. The final Verification of Senior Design Objectives through Enterprise Experience form on file at the conclusion of the senior design project semesters must represent the project and deliverables as completed by the student.
- All Mechanical Engineering Undergraduate Enterprise Enrollment (Enterprise Advisor) Approval forms required for registration into a given project semester must be fully and accurately completed by the student (M number, name, course number, CRN and lab section number for specific team section for requested semester, enterprise name, and semester) before submission to the ME Advising Center for registration. An enterprise advisor may send an ME academic advisor an email in place of the signed enrollment form as long as the appropriate student and section information is included. Certain enterprises may require good academic standing for enrollment, as noted above. Academic advisors will confirm academic standing before registration in project semester courses, where necessary.

### *Enterprise Modules*

- 1 credit each
- 3 credits required
- Modules may be restricted by class standing, may require instructor approval for registration, may have pre-requisites, and/or may only be offered in one semester per academic year. Please see the Undergraduate Catalog online (<http://www.mtu.edu/catalog/>) for course descriptions and these restrictions.
- See notes on BSME-Enterprise Concentration flowchart for approved modules.

### *Required General Education (specific to Enterprise Concentration)*

- Two required courses, ENT 2961 and ENT 2962 (total of 3 credits) can be double-listed for 3 credits of HASS General Education Distribution credit from the Supplemental list if maximum of 3 credits allowed from Supplemental list has not already been met.
  - ENT 2961 - Teaming in the Enterprise (2 credits)
    - Develops group problem-solving skills. Stresses interpersonal skills and skill assessment, communication, group process and teamwork, and action planning. Uses active, hands-on learning. Only offered fall semesters. May not have freshman class standing.
  - ENT 2962 - Communication Contexts (1 credit)
    - An introduction to the demands of technical and professional communication in workplace settings, through analyzing project design team experiences. Only offered spring semesters. May not have freshman class standing. UN 1002 or UN 1003 are required as pre-requisites.
- Students may consider substitution of HU 3120 or CM 3410 (3 credits each - HASS Supplemental list courses) for ENT 2961 and 2962. Students should register for one of these alternate courses and file a petition with an ME academic advisor.

This set of guidelines should answer many student questions regarding participation in the Enterprise program and incorporating that participation into a BSME curriculum. Students must take responsibility for planning ahead and having a good understanding of both their current status and progress. The ME academic advisors are available for assistance.

Ryan Towles  
Academic Advisor  
Mechanical Engineering - Engineering Mechanics  
204A (203) R.L. Smith Building (MEEM)  
[ratowles@mtu.edu](mailto:ratowles@mtu.edu)  
906.487.2564

Danise Jarvey  
Senior Engineering Academic Advisor  
Mechanical Engineering-Engineering Mechanics  
205A (203) R.L. Smith ME-EM Bldg. (MEEM)  
[dnjarvey@mtu.edu](mailto:dnjarvey@mtu.edu)  
906.487.2564

# APPENDIX



Instructions for completion and submission of this form on the next page.

## ENT4950 Registration Permission Form Verification of Senior Design Objectives through Enterprise Experience

Major: MECHANICAL ENGINEERING

Date: \_\_\_\_\_

Part A: To be completed by student.

Identify semester/year/CRN for appropriate section of ENT4950:

Student: \_\_\_\_\_

ID#: M \_\_\_\_\_

Primary major: \_\_\_\_\_ 2<sup>nd</sup> major/deg: \_\_\_\_\_

Course: Semester/Year: CRN:

e-mail: \_\_\_\_\_@mtu.edu

ENT4950

\_\_\_\_\_

\_\_\_\_\_

Enterprise : \_\_\_\_\_

ENT 4960

\_\_\_\_\_

\_\_\_\_\_

Enterprise Advisor: \_\_\_\_\_

Check if applicable:

ENT concentration (EMEE Declared

Enterprise Minor

Part B. To be completed by student and enterprise advisor. Form must be approved by your academic department prior to enrolling in ENT4950.

\_\_\_ ENT 3950 (same team) \_\_\_ MEEM 3900 \_\_\_ MEEM 3502

Senior Design Ready: \_\_\_\_\_ (to be initialed by academic advisor) \_\_\_ ENT 3960 (same team) \_\_\_ MEEM 3000

Project Title: \_\_\_\_\_

Abstract: Outline the project scope and deliverables assigned to this student (attach additional pages as needed).

Preliminary Project Abstract

Final Project Abstract

ABET Criteria Enterprise Advisor should check whether student will:

- 3 (a) Apply knowledge of mathematics, science and engineering.
- 3 (b) Design and conduct experiments, as well as to analyze and interpret data.
- 3 (c) Design a system, component, or process to meet desired needs.
- 3 (d) Function on multi-disciplinary team(s) as demonstrated by the execution of a team project that is too large, complex, or diverse for a single person. Partition a project into tasks and lay out a project plan. Execute the project and produce the required deliverables.
- 3 (e) Identify, formulate and solve engineering problems.
- 3 (f) Demonstrate understanding of professional and ethical responsibility.
- 3 (g) Communicate effectively.
- 3 (h) Gain understanding of the impact of engineering solutions in a global, economic, environmental and societal context.
- 3 (i) Recognize the need for, and an ability to engage in life-long learning.
- 3 (j) Gain knowledge of contemporary issues.
- 3 (k) Use the techniques, skills and modern engineering tools necessary for the practice of engineering.
- Program specific criteria (please describe on back of this form)

Approved by: \_\_\_\_\_  
Enterprise Faculty Advisor Date

Approved by: \_\_\_\_\_  
Academic Department Date

Approved by: \_\_\_\_\_  
2<sup>nd</sup> Major/Deg Academic Department Date

Return completed form to Enterprise Program Office, IIS, 722 M&M.

Enterprise Design Verification, Rev 4  
Feb -12

## **Mechanical Engineering – Verification of Senior Design Objectives through Enterprise Experience**

The Verification of Senior Design Objectives through Enterprise Experience form must be completed by each BSME – Enterprise concentration student prior to registering for ENT4950. The purpose is to ensure that the student's participation in the Enterprise program represents a senior-design equivalent capstone design experience as required by ABET. The basic template to be followed by ME students is provided on the reverse side of these instructions.

Students should consult with their enterprise team advisor when defining the capstone-equivalent project they will be participating in. The completed form must be approved by the enterprise team advisor and the ME-EM Associate Chair and Director of Undergraduate Studies. After the enterprise team advisor has signed the form, the student must submit the form to an ME academic advisor for verification of pre-requisites. The advisor will then submit the form to the ME-EM Associate Chair and Director of Undergraduate Studies for review.

The following are required prior to enrollment in ENT4950.

- 1. Satisfy pre-requisite requirements: MEEM3900, MEEM3000 (concurrent pre-requisite), MEEM3502 (concurrent pre-requisite), and ENT3950/ENT3960 in same enterprise.**
- 2. Approved Verification of Senior Design Objectives through Enterprise Experience form.**

After the above items have been completed, an ME academic advisor will enroll the student in ENT4950. A copy of the approved form will be retained in the ME Advising Center and the original will be submitted to the Enterprise program office. It is recommended that this form be completed during the semester prior to taking ENT4950 in order to facilitate the registration process. The form should definitely be submitted by the end of the first week of classes of the semester in which ENT4950 is to be completed.

Recognizing that it may not be possible to fully identify the intended design project in this timeframe, or that design project scope and/or deliverables may change over the course of the semester, amended Verification of Senior Design Objectives through Enterprise Experience forms must be prepared and submitted to the ME-EM department via an academic advisor if any major changes are made to the originally approved project parameters. **The final form on file with the Enterprise program office at the conclusion of the Enterprise project course sequence must represent the project and deliverables as completed by the student.**

Questions can be directed to the ME Advising Center in 204/205 ME-EM.

# Abstract Template for Verification of Senior Design Objectives through Enterprise Experience Form

- This format must be followed for ME students submitting the above project form for approval, regardless of enterprise team.
- This template is available for download at:

<http://www.mtu.edu/mechanical/undergraduate/advising/docs/ent4950-abstract-template.docx>

*Michigan Tech Enterprise Project Brief for MEEM Capstone*

## Topic

**Project Topic Here**

### Objective:

One sentence project objective

### Background

concise background of problem domain ...

What is driving the need...?

Include photo

### Project Scope

basic project scope here, maybe bullets of goals, specifics, etc.

rough definition of design space...

desired skill sets on team – curricula involved, grad student support needed?..

describe focus of team

### Project Goals

- bullet 1 with sub-bullets:
  - desired outcome
  - design for X
  - performance goals
  - etc...
- some analysis deliverables along with design prototype, etc....
- goal 3
- goal 4
- etc.....
- 

### Sponsor Can Provide:

- any special information, background, hardware, specialized testing eqpmt. etc.
- anything in existence that may support project goals
- bullet 2
- bullet 3
- etc....

### Timing

Project Start: Thursday of Week 1 (Semester I)

Project Completion: Finals of Week (Semester II)

*Michigan Tech Enterprise Project Brief for MEEM Capstone*

Preliminary project milestones for ENT4950	
Week 1	Begin semester
Week 2	Initial contact with advisor and sponsor
Week 6	Draft project plan complete
Week 7	Project plan approved
Week 11	Mid-semester design review, concepts review
Week 12	Concept selection complete
Exam week	Panel Review

Preliminary project milestones for ENT4960	
Week 1 - Monday	Begin semester
Week 4	Alpha proto near completion, begin evaluation
Week 8	Alpha proto complete, some testing and revision
Week 14	Final documentation and presentation

**ME Enterprise Enrollment Form for Enterprise Team Project Semester Registration**

- Fill out completely with M number, course number, CRN and lab section number, enterprise name, semester, and enterprise advisor signature.
- May be replaced with an email from the enterprise faculty advisor that includes information all the information on the form.
- Academic advisors will confirm academic standing before registration in project semester courses, when required.

***Michigan Tech Mechanical Engineering Undergraduate Enterprise Enrollment (Enterprise Advisor) Approval***

**Personal Information**

<b>M Number</b>		<b>Name (please print)</b>	
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**Course Information**

<b>Semester / Year</b>		<b>Course Number (ENT XXXX)</b>	
<b>CRN # (5-digit)</b>		<b>Section Number (LXX)</b>	
<b>Enterprise Name</b>			

**Reference ME Enterprise Enrollment Guidelines for correct course number to be enrolled.**

**Good Academic Standing required for enrollment in Formula SAE, Clean Snowmobile Challenge, BoardSport Technologies, Mini (Blizzard) Baja, and Supermileage Systems, HPV**

\_\_\_\_\_ **Enterprise Advisor Approval Signature**

\_\_\_\_\_ **Date**

**Return this form to the ME Advising Center by Friday of 1<sup>st</sup> week (late-add form required after this date). Academic Advisors will enroll the above student with this signed approval form.**

**Student in Good Academic Standing: YES NO N/A \_\_\_\_\_ (Initials, Academic Advisor)**

# Curriculum Add/Drop Form

- Used to declare the Enterprise Concentration within the BSME curriculum (form is available from an academic advisor)



Registrar's Office  
487-2319

## Undergraduate Curriculum Add/Drop Form

Curriculum changes must be submitted to the Registrar's Office before Wednesday of the second week of instruction to be effective for that semester.  
Curriculum changes received after that time will be effective for the following semester.  
Changes to catalog year only will be effective for the current semester.

### CURRENT INFORMATION:

Name (please print): \_\_\_\_\_ Student ID: M \_\_\_\_\_  
Last First Middle  
MTU Email \_\_\_\_\_@mtu.edu Phone number (optional): \_\_\_\_\_  
Primary Major: \_\_\_\_\_ Concentration: \_\_\_\_\_  
Minor: \_\_\_\_\_ Certificate: \_\_\_\_\_  
Double Major: \_\_\_\_\_ Concentration: \_\_\_\_\_  
Second Degree with Major/Concentration: \_\_\_\_\_

### CHANGE CATALOG YEAR ONLY

New catalog year to use:  2006-07  2007-08  2008-09  2009-10  Other \_\_\_\_\_  
For the current:  Primary Major  Double Major  Minor  Certificate  Second Degree

Student Signature \_\_\_\_\_ Date \_\_\_\_\_ Academic Advisor (associated with the selected curriculum) \_\_\_\_\_ Date \_\_\_\_\_  
Print advisor name: \_\_\_\_\_

**ADD** OR  **CHANGE** (to current information listed above)  
 Primary Major \_\_\_\_\_  Concentration \_\_\_\_\_  
(within primary curriculum)  
 Minor \_\_\_\_\_  Certificate \_\_\_\_\_  
 Double Major\* \_\_\_\_\_  Concentration \_\_\_\_\_  
(within double major)  
 Second Degree\* with Major/Concentration \_\_\_\_\_

\*Note: A double major is not the same as a second degree. If you wish to pursue a second degree, you must complete a degree audit with the academic advisor in the second degree department

Catalog Year to use for new curriculum:  2006-07  2007-08  2008-09  2009-10  Other \_\_\_\_\_

Student Signature \_\_\_\_\_ Date \_\_\_\_\_ Academic Advisor (associated with the selected curriculum) \_\_\_\_\_ Date \_\_\_\_\_  
Print advisor name: \_\_\_\_\_

**DROP** (from current information listed above)  
 Primary Major \_\_\_\_\_  Concentration \_\_\_\_\_  
(within primary curriculum)  
 Minor \_\_\_\_\_  Certificate \_\_\_\_\_  
 Double Major \_\_\_\_\_  Concentration \_\_\_\_\_  
(within double major)  
 Second Degree with Major/Concentration \_\_\_\_\_

Advisor signature is **not** required for dropped curriculum.

Student Signature \_\_\_\_\_ Date \_\_\_\_\_