

Scheduled appointments have priority over walk-ins. See above website for advisor hours.

Judy Burl, [eceadvise@mtu.edu](mailto:eceadvise@mtu.edu) and [jmburl@mtu.edu](mailto:jmburl@mtu.edu)

Call (906) **487-2550** to schedule an advising appointment, or stop in the ECE Office, **EERC 121**.

**Learning Center Locations:**

Chemistry ( <b>CH</b> ): Chem-Sci 208	Computer Science ( <b>CS</b> ): Rekhi 114
Electrical & Computer Engineering ( <b>EE</b> ): EERC 123	Engineering Fundamentals ( <b>ENG</b> ): Dillman 208
Mathematics ( <b>MA</b> ): Fisher 234	Physics ( <b>PH</b> ): Fisher 128
Multiliteracies: Walker 107 (help w/ writing and communication assignments for <b>all</b> courses)	

The Admin Building first floor Student Services Center includes the Registrar's Office, Financial Aid, the Wahtera Center for Student Success, and the Dean of Students offices.

**Important Dates for Fall semester 2019:**

Tuesday, Sept. 3 – Classes begin.

Friday, Sept. 6 – Last day to **add** a full semester course – first-year students use orange add/drop form, obtain signatures well before 5pm. Last day to drop a track A course (PE, MA2321&MA3521, EE1110). Refund only if dropping below 12 credits.

Wednesday Sept 11 – Last day to **add/drop** courses and attain full time status with a minimum of 12 credits, for financial aid. Last day to **drop** full semester courses online. Refund only if dropping below 12 cr.  
After Sept. 7, *all drops must be done in Student Services*. First-year students need orange form to add/drop.

Friday Sept 20, by 5pm– Last day to **drop** a full-semester course without a grade. No refund.

Wednesday Sept. 27 – Career Fair! All students should attend. <http://www.mtu.edu/career/fair/students/>

Monday Oct. 21 – **Mid-term grades** available online for first-year students.

Monday Oct. 21 – **Track B** courses begin this week.

Sunday Oct 27 – Registration for **spring 2020 classes** begins. See Registration Priority Schedule at <http://www.mtu.edu/registrar/students/registration/prepare/>

**Friday Nov 8**, before 5pm– *Last day to drop* full-semester courses with a grade of “W”. No refund. No drops allowed after Nov 8. *Mark your calendars*.

Nov 25 – 29 – Thanksgiving Break.

Dec 16 – 20 – Final Exams



**ECE Department Enterprises:** Sections L02, L03 and L15

**BMSE (L02)** – Blue Marble Security, EERC 637 Advisor: Dr. Glen Archer, EERC 629

**WCE (L03)** – Wireless Communication, EERC 621 Advisor: Mr. Kit Cischke, EERC 520

**RSE (L15)** – Robotic Systems Advisor: Dr. Jeremy Bos, EERC 623

- Teams of undergraduate students working on projects across many industries and applications.
- Joining an enterprise is optional.
- See the enterprise list online for information about all the enterprises at Tech.
- You may obtain a concentration in Enterprise or a minor in Enterprise with your major.
- You may complete your engineering design requirements in the enterprise program (blue lines below)
- You may switch enterprises between semesters except in your last two semesters.
- Optional one-credit enterprise modules supplement the enterprise program. See ‘ENT’ courses online.
- See your academic advisor to find out how enterprise (ENT) credits may apply to your degree.

Enterprise Program director and Enterprise Minor advisor: Mr. Rick Berkey, M&M 722

**To REGISTER** for enterprise project work, print the approval/waiver form, meet with the enterprise faculty advisor for approval signature. List *section number and CRN* that pertain to the enterprise you are joining. Bring completed waiver forms to the Student Services Center(Registrar’s Office-Admin Bldg). If you are uncertain which course number to use, *see the guide below and then if needed, ask your academic advisor! Don’t guess.*

**\*Before ENT4950, complete engineering design pre-requisites to be “Senior Design Ready”**

EE3131, Electronics, and EE3901, Design Fundamentals, must be complete in order to enroll in ENT4950.

EE3171(EE’s) or EE3173(CpE’s) must be complete with or prior to ENT4950.

**Enterprise course codes:** *with recommendation of when to join based on expected graduation semester.*

# Semesters remaining at MTU:	Register in Course # for Project work	Register in Your Enterprise Section #	Look up the section number and CRN that pertains to the enterprise you wish to register in, in the Schedule of Classes.
8			Wait one semester. Explore enterprises and choose.
7	ENT 1960		Optional; along with Calculus II
6	ENT 2950		Optional; same semester as EE2111 or Diff Eq.
5	ENT 2960		Optional; same semester as EE2112 or 5 semesters to go
4	*ENT 3950		Begin Engineering Design sequence when you have 4 semesters remaining at Tech
3	*ENT 3960		
Optional 3	ENT 3980		Use if not yet “senior design ready”; cannot apply to engineering design
2	*ENT 4950		ENT4950 Permission/Design Verification form and Project Summary form are required; EE3901,EE3131 completed; co-req or pre-req: EE3171 or EE3173
1	*ENT 4960		
Another 1	ENT 4961		Optional super senior semester

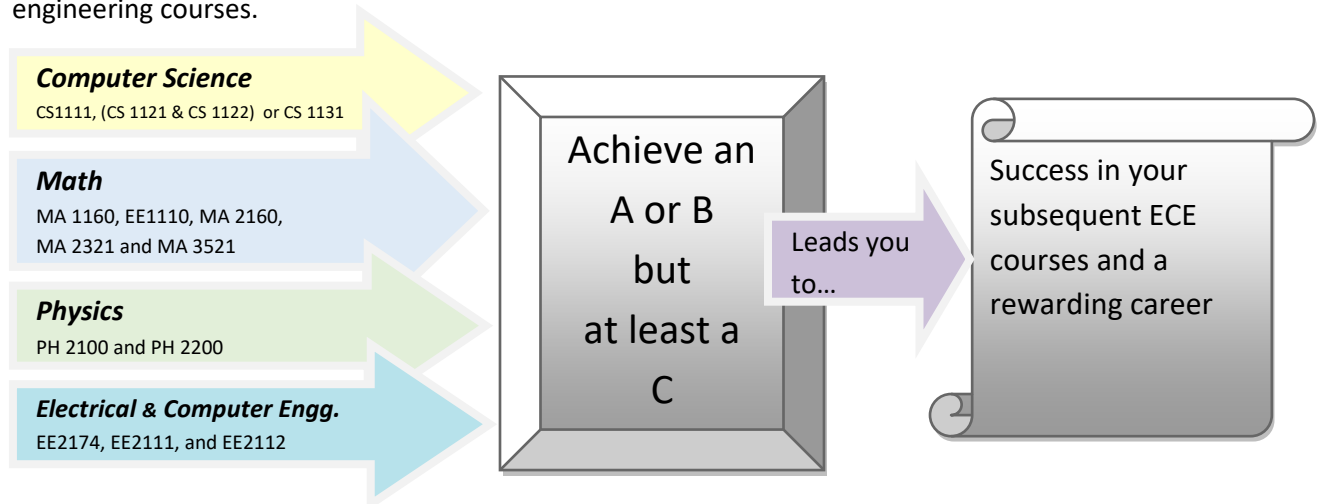
**\*Required course numbers** to meet the engineering design requirements using enterprise project work. Applies to Electrical Engineers and Computer Engineers.

*Most enterprises require signature approval from the enterprise advisor (instructor) using Waiver form.*

# What can I do to best prepare myself to succeed in the electrical or computer engineering program at Michigan Tech?

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Success in your freshmen and sophomore core classes is critical to your continued success in the ECE engineering courses.



*If you receive a CD or D in any of the computer science, math, physics, or EE classes listed above, we strongly encourage you to retake the class BEFORE continuing on in the next class in the sequence. Math skills are significant keys to success in future ECE core classes (EExxxx).*

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## ***Information on Retaking Classes***

You may retake a class in which you receive a CD, D, or F (no more than 3 attempts per class).

A repeated course grade always replaces the prior grade. If you retake a class and receive a higher grade, this will improve your cumulative GPA. However, you could retake a class and get a lower grade. For example if you have a D (a passing grade) and retake a course and earn an F (a failing grade), you now have a failing grade in the course and would have to take the class a third time.

You may take a class up to three times. You must receive permission from the Dean of Students Office and your academic advisor to register for a class the third and final attempt. If the class that you are retaking is a required for your program, and you do not pass the class during the third attempt then you may no longer continue in the program. A 'W'(withdraw) grade does not count as an attempt.

Below is the link to the Registrar's Office policy on retaking classes.

<http://www.mtu.edu/registrar/students/registration/policies/repeat-course/>

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**Need help? Contact the ECE Advising Office, EERC 131, (906) 487-2550**

Judy Burl – [ecceadvise@mtu.edu](mailto:ecceadvise@mtu.edu) 487-2232

## **Wish I Knew . . . . . Things I wish I knew when I was a freshman**

### **Homework:**

Do **ALL** OF YOUR HOMEWORK !!! Don't procrastinate – it only snowballs from there. If you get behind in homework, you will have a difficult time getting caught up and your grades will suffer. The work is not like it was in High School. You need to study 2 – 3 hours outside of class for every credit hour in class. Seek help early on if needed.

### **Just Getting By**

### **EERC 123: Excellent Coaching Services**

If you memorize all your notes, that's not enough. Do the problems multiple times until you have mastered them. Don't try to get by with just memorizing and doing the minimum to pass an exam. It's not worth it, and puts you in danger of failing a future class. This messes up your graduation plans. Learn the processes, learn what you came here to learn, learn how to solve problems and learn the why's. See the instructor if you don't understand how to do a problem. You got this far – it's all worth doing well.

### **Missing class**

Go to all of your classes. You will not do well on quizzes and tests if you miss classes. Really hurts your GPA.

### **GPA**

GPA is very important when it comes time to co-op, study abroad, job-hunt or apply to grad school. Once your GPA goes down, it is very hard to get it back up. It's up to you.

Get yourself into a good routine of studying and make sure you learn the material. Set your priorities in order to be successful, there will be time to relax and have fun too. 3.00 is the minimum cumulative GPA used by many companies for job interviews.

### **8:00 A.M. Class ?**

It's only 14 weeks, with breaks, so just deal with it. Read 'Missing class' above.

### **Elective Courses**

Start looking at advanced classes early on. Some of the coolest classes require planning of prerequisites several semesters in advance. Make sure you get the pre-requisites done on time to take the electives you want. Co-op and study abroad can limit your choices of electives. Plan ahead. Talk with faculty about 'focus areas'. Meet with the advisor and attend advising meetings for help with planning.

### **Instructors**

Get to know your instructors. They're awesome people!! They enjoy teaching the topics they are experts in. Instructors are a great resource for you - they can give references and award nominations if they know you. They are the gateway to undergraduate research opportunities.

### **Friends**

Find EE / CpE friends and take classes with them. When you move off campus having your housemates as study partners is incredibly convenient. Keep tabs on your personal priorities.

### **Rumors**

Do not listen to advice from friends or that you 'heard from somewhere' when it comes to degree requirements. Review your degree audit, course descriptions, and see or e-mail the advisor if you have a question.

# General Education: Core & Humanities, Arts and Social Sciences (HASS)

24 credits required: 12 credits from Core & 12 credits from HASS

2019-2020

## Core Courses: 12 credits required

UN1015 Composition: 3 credits	UN1025 Global Issues: 3 credits or 3000-level or higher Modern Language course: 3 credits
<b>Critical and Creative Thinking: 3 credits</b> <ul style="list-style-type: none"> <li>Select one course</li> </ul> FA2330 Art Appreciation FA2520 Music Appreciation FA2720 Sound in Art and Science FA2820 Theatre Appreciation HU2130 Introduction to Rhetoric HU2324 Introduction to Film HU2501 American Experience in Literature HU2503 Introduction to Literature HU2538 British Experience in Literature HU2700 Introduction to Philosophy HU2820 Communication and Culture HU2910 Language and Mind SS2300 Environment and Society TA2XX4 Critical & Creative Thinking Core <i>(Transfer Agreement credit only)</i>	<b>Social Responsibility &amp; Ethical Reasoning: 3 credits</b> <ul style="list-style-type: none"> <li>Select one course</li> </ul> EC2001 Principles of Economics ED2000 Issues in American Education PSY2000 Introduction to Psychology SS2100 Introduction to Cultural Anthropology SS2200 Introduction to Archaeology SS2400 Introduction to Human Geography SS2500 United States History to 1877 SS2501 US History Since 1877 SS2502 European History to 1650 SS2503 European History Since 1650 SS2504 World History to 1500 SS2505 World History Since 1500 SS2600 American Government and Politics SS2610 Introduction to Law and Society SS2700 Introduction to Sociology TA2XX8 Social Responsibility & Ethical Reasoning Core <i>(Transfer Agreement credit only)</i>

## Humanities, Arts, and Social Sciences (HASS): 12 credits required

Students must take a minimum of 12 credits in HASS following these requirements:

- 6 credits must be upper level (3000-4999) courses
  - UN1015 **AND** (UN1025 **or** Modern Language – 3000 level or higher) are prerequisites to all upper level **non-language** HASS courses
  - Prerequisites for upper level language courses are appropriate placement score **OR** required lower level language course
- 3 credits are required from each of the following lists:
  - Communication and Composition
  - Humanities and Fine Arts (HU/FA)
  - Social and Behavioral Sciences (EC/PSY/SS)
- No more than 3 credits from the Restricted HASS list may be counted toward the HASS requirement
- Some courses are on more than one HASS list, on a HASS list and a Core list, or on the HASS list and the STEM list, but each course can satisfy only one requirement

### Communication and Composition

- Minimum of 3 credits required

HU2810	Research & Writing in Communication	3
HU2830	Public Speaking & Multimedia	3
HU3015	Advanced Composition	3
HU3120	Technical and Professional Communication	3
HU3130	Rhetoric of Science and Technology	3
HU3151	The Rhetoric of Everyday Texts	3
HU3621	Introduction to Journalism	3
HU3693	Science Writing	3
HU3694	Grant Writing	3
HU3832	Advanced Digital Presentation	3
HU4625	Risk Communication	3
HU4628	Usability and Instructions Writing	3
HU1XX5	HASS Communication/Comp <i>(transfer credit only)</i>	3
HU2XX5	HASS Communication/Comp <i>(transfer credit only)</i>	3
HU3XX5	HASS Communication/Comp <i>(transfer credit only)</i>	3
HU4XX5	HASS Communication/Comp <i>(transfer credit only)</i>	3
TA1XX5	Communication Elective <i>(Transfer Agreement credit only)</i>	var
TA3XX5	Communication Elective <i>(Transfer Agreement credit only)</i>	var

**Humanities and Fine Arts (HU/FA)**

- Minimum of 3 credits required

FA2050	Drawing I	3
FA2123	World Music	3
FA2150	Creative Drawing Processes	3
FA2160	Creative Practices: A Studio Course in Making Visual Art	3
FA2190	Art and Nature	3
FA2222	Film Music	3
FA2300	Art and Design Studio	3
FA2305	Ceramics I	3
FA2315	Beginning Wheel Throwing	3
FA2330	Art Appreciation	3
FA2520	Music Appreciation	3
FA2600	Beginning Acting	3
FA2720	Sound in Art and Science	3
FA2820	Theatre Appreciation	3
FA3133	Contemporary Music: The Search for New Sounds	3
FA3305	Creative Ceramics	3
FA3330	Art History-Prehistory to Renaissance	3
FA3333	Contemporary Sculpture Studio	3
FA3335	Traditional Sculpture Studio	3
FA3340	Art History-Renaissance to Today	3
FA3550	History of Jazz	3
FA3560	Music History	3
FA3600	Advanced Acting	3
FA3625	History of Rock	3
FA3630	Beatles and Beach Boys	3
FA3810	Theatre History I	3
FA3821	Theatre History II	3
FA3860	Costume History	3
FA4620	Musical Theatre Performance	3
FA1XXX	HASS Elective ( <i>transfer credit only</i> )	3
FA2XXX	HASS Elective ( <i>transfer credit only</i> )	3
FA3XXX	HASS Elective ( <i>transfer credit only</i> )	3
FA4XXX	HASS Elective ( <i>transfer credit only</i> )	3
HU2130	Introduction to Rhetoric	3
HU2241	Level I-A Less Commonly Taught Languages ( <i>transfer or study abroad credit only</i> )	var
HU2242	Level I-B Less Commonly Taught Languages ( <i>transfer or study abroad credit only</i> )	var
HU2271	Level I-A French Language & Culture	3
HU2272	Level I-B French Language & Culture	3
HU2273	Transitional Level I French Language & Culture	3
HU2281	Level I-A German Language & Culture	3
HU2282	Level I-B German Language & Culture	3
HU2291	Level I-A Spanish Language & Culture	3
HU2292	Level I-B Spanish Language & Culture	3
HU2293	Transitional Level I Spanish Language & Culture	3
HU2324	Introduction to Film	3
HU2500	Ways of Reading	3
HU2501	American Experience in Literature	3
HU2503	Introduction to Literature	3
HU2510	Intro to Creative Writing	3
HU2538	British Experience in Literature	3
HU2548	Young Adult Literature	3
HU2633	Fundamentals of Digital Imaging	3
HU2700	Introduction to Philosophy	3
HU2702	Ethical Theory and Moral Problems	3
HU2810	Research & Writing in Communication	3
HU2820	Communication and Culture	3

**Humanities and Fine Arts (HU/FA) cont.**

HU2830	Public Speaking & Multimedia	3
HU2910	Language and Mind	3
HU2920	Language and Society	3
HU3015	Advanced Composition	3
HU3120	Technical and Professional Communication	3
HU3130	Rhetoric of Science and Technology	3
HU3150	Topics in Literacy Studies	3
HU3151	The Rhetoric of Everyday Texts	3
HU3241	Level II-A Less Commonly Taught Languages ( <i>transfer or study abroad credit only</i> )	var
HU3242	Level II-B Less Commonly Taught Languages ( <i>transfer or study abroad credit only</i> )	var
HU3261	Communicating Across Cultures	3
HU3262	Topics in Francophone Cultures	3
HU3263	Topics in German-Speaking Culture	3
HU3264	Topics in Spanish-Speaking Culture	3
HU3271	Level II-A French Language & Culture	3
HU3272	Level II-B French Language & Culture	3
HU3274	Level III French Literature & Culture	3
HU3275	French for Special Purposes	3
HU3280	Level I-C German Language and Culture	3
HU3281	Level II-A German Language & Culture	3
HU3282	Level II-B German Language & Culture	3
HU3283	Level II German for Special Purposes	3
HU3284	Level III German Literature & Culture	3
HU3285	Level III German Film & Media	3
HU3291	Level II-A Spanish Language & Culture	3
HU3292	Level II-B Spanish Language & Culture	3
HU3293	Level II-C Spanish Composition & Conversation	3
HU3294	Hispanic Literatures and Culture	3
HU3295	Level III Advanced Spanish for Literacies	3
HU3296	Introduction to Hispanic Literatures and Cultures	3
HU3327	Film Style and Genre	3
HU3400	Topics in Diversity Studies	3
HU3401	Gender and Culture	3
HU3410	Introduction to Diversity Studies	3
HU3502	Mythology	3
HU3504	Studies in the Novel	3
HU3505	Literary Forms, Genres, and Modes	3
HU3506	Major Authors	3
HU3507	Cultural Traditions in Literature	3
HU3508	Literature and the Environment	3
HU3513	Shakespeare	3
HU3514	Workshop Creative Nonfiction	3
HU3515	Workshop in Poetry	3
HU3516	Workshop in Fiction	3
HU3517	Literary Theory and Criticism	3
HU3518	Writing Science Fiction	3
HU3519	Writing Nature	3
HU3545	Literature across Borders	3
HU3554	Science Fiction and Fantasy Literature	3
HU3557	Literature and Science	3
HU3621	Introduction to Journalism	3
HU3693	Science Writing	3
HU3694	Grant Writing	3
HU3700	Philosophy of Science	3
HU3701	Philosophy of Technology	3
HU3702	Philosophy of Religion	3
HU3710	Engineering Ethics	3
HU3711	Biomedical Ethics	3



**Humanities and Fine Arts (HU/FA) cont.**

HU3800	Media and Society	3
HU3802	Media and Globalization	3
HU3810	Technology and Culture	3
HU3820	Interpersonal Communication	3
HU3830	Creativity, Culture, & Change	3
HU3832	Advanced Digital Presentation	3
HU3840	Organizational Communication	3
HU3850	Cultural Studies	3
HU3852	Surveillance, Media, and Film	3
HU3860	Popular Culture	3
HU3871	New Media Theory	3
HU3872	Color, Visuality, and Culture	3
HU3882	Media Industries	3
HU3890	Documentary	3
HU3910	Language and Globalization	3
HU3940	Language and Identity	3
HU4271	Modern Language Seminar I-French	3
HU4272	Modern Language Seminar II-French	3
HU4273	Modern Language Seminar III-French	3
HU4281	Modern Language Seminar I-German	3
HU4282	Modern Language Seminar II-German	3
HU4283	Modern Language Seminar III-German	3
HU4291	Modern Language Seminar I-Spanish	3
HU4292	Modern Language Seminar II-Spanish	3
HU4293	Modern Language Seminar III-Spanish	3
HU4625	Risk Communication	3
HU4628	Usability and Instructions Writing	3
HU4701	Political Philosophy	3
HU4725	Existentialism and Phenomenology	3
HU4890	Topics in Communication	3
HU1XXX	HASS Elective ( <i>transfer credit only</i> )	3
HU2XXX	HASS Elective ( <i>transfer credit only</i> )	3
HU3XXX	HASS Elective ( <i>transfer credit only</i> )	3
HU4XXX	HASS Elective ( <i>transfer credit only</i> )	3
HU1XX5	HASS Communication/Comp ( <i>transfer credit only</i> )	3
HU2XX5	HASS Communication/Comp ( <i>transfer credit only</i> )	3
HU3XX5	HASS Communication/Comp ( <i>transfer credit only</i> )	3
HU4XX5	HASS Communication/Comp ( <i>transfer credit only</i> )	3
IS2001	International Studies in situ – Hum/Fine Arts ( <i>study abroad credit only</i> )	var
IS3001	International Studies in situ – Hum/Fine Arts ( <i>study abroad credit only</i> )	var

**Social and Behavioral Sciences (EC/PSY/SS)**

- Minimum of 3 credits required

EC2001	Principles of Economics	3
EC3002	Microeconomic Theory	3
EC3003	Macroeconomic Theory	3
EC3100	International Economics	3
EC3300	Industrial Organization	3
EC3400	Economic Decision Analysis	3
EC4050	Game Theory/Strategic Behavior	3
EC4400	Banking and Financial Institutions	3
EC4500	Public Sector Economics	3
EC4620	Energy Economics	3
EC4630	Mineral Industry Economics	3
EC4640	Natural Resource Economics	3
EC4650	Environmental Economics	3
EC4710	Labor/Human Resource Economics	3
EC1XXX	HASS Elective ( <i>transfer credit only</i> )	3

**Social and Behavioral Sciences (EC/PSY/SS) cont.**

EC2XXX	HASS Elective ( <i>transfer credit only</i> )	3
EC3XXX	HASS Elective ( <i>transfer credit only</i> )	3
EC4XXX	HASS Elective ( <i>transfer credit only</i> )	3
ED2000	Issues in American Education	3
FW3313	Sustainable Science	3
FW3760	Human Dimensions of Natural Resources	3
GE4630	Mineral Industry Economics	3
MGT3650	Intellectual Property Management	3
PSY2000	Introduction to Psychology	3
PSY2110	Educational Psychology	3
PSY2300	Developmental Psychology	3
PSY2400	Health Psychology	3
PSY2600	Death and Dying	3
PSY2900	An Introduction to Restorative Practices	3
PSY3010	Theories of Personality	3
PSY3030	Abnormal Psychology	3
PSY3070	Cross-Cultural Psychology	3
PSY3720	Social Psychology	3
PSY1XXX	HASS Elective ( <i>transfer credit only</i> )	3
PSY2XXX	HASS Elective ( <i>transfer credit only</i> )	3
PSY3XXX	HASS Elective ( <i>transfer credit only</i> )	3
PSY4XXX	HASS Elective ( <i>transfer credit only</i> )	3
SS2100	Introduction to Cultural Anthropology	3
SS2200	Introduction to Archaeology	3
SS2210	Evolution of Cities	3
SS2300	Environment and Society	3
SS2400	Introduction to Human Geography	3
SS2500	United States History to 1877	3
SS2501	United States History since 1877	3
SS2502	European History to 1650	3
SS2503	European History since 1650	3
SS2504	World History to 1500	3
SS2505	World History since 1500	3
SS2510	Gender and the Past	3
SS2600	American Government & Politics	3
SS2601	Politics of the European Union	3
SS2610	Introduction to Law and Society	3
SS2635	Comparative Politics	3
SS2700	Introduction to Sociology	3
SS3105	Native American and Indigenous Communities	3
SS3110	Food Systems and Sustainability	3
SS3200	Archaeology of the Modern World	3
SS3210	Field Archaeology	var
SS3225	Capitalism and the Modern World	3
SS3230	Archaeology of Industry	3
SS3240	Reading the Landscape	3
SS3250	Biological Anthropology	3
SS3260	Latin American Cultural History	3
SS3270	Archaeology of the African Diaspora	3
SS3280	Anthropology of Energy	3
SS3300	Environmental Problems	3
SS3313	Sustainability Science	3
SS3315	Population and Environment	3
SS3400	Contemporary Europe	3
SS3500	Modern American History	3
SS3505	Military History of the U.S.	3
SS3510	History of American Technology	3
SS3511	History of Science in America	3
SS3513	History of Making Things: Craft and Industry in America	3
SS3515	History of American Architecture	3

**Social and Behavioral Sciences (EC/PSY/SS) cont.**

SS3520	U.S. Environmental History	3
SS3530	The Automobile in America	3
SS3540	History of Michigan	3
SS3541	The Copper Country	3
SS3552	Renaissance & Reformation	3
SS3553	Empires in World History	3
SS3560	History of England I	3
SS3561	History of England II	3
SS3570	History of Canada	3
SS3580	Technology and Western Civilization	3
SS3581	History of Science	3
SS3600	American Foreign Policy	3
SS3610	International Law	3
SS3612	International Relations	3
SS3621	Introduction to Public Policy and Public Management	3
SS3630	Environmental Policy & Politics	3
SS3636	Perceptions of the Modern State and Governance	3
SS3640	Selected Topics in Cyber-Law	3
SS3650	Intellectual Property Management	3
SS3660	Constitutional Law	3
SS3661	Civil Rights & Civil Liberties	3
SS3665	Crime, Incarceration, and Policy	3
SS3710	Social Problems	3
SS3760	Human Dimensions of Natural Resources	3
SS3800	Energy Policy and Technology	3
SS3801	Science, Technology, & Society	3
SS3805	Environmental Justice	3
SS3811	Energy Security and Justice	3
SS3815	Energy and Society	3
SS3910	Histories and Cultures	3
SS3920	Topics in Anthropology/Archaeology	3
SS3950	Topics in American History	3
SS3951	Topics in European History	3
SS3952	Topics in World History	3
SS3961	Preparing for Cross-Cultural Immersion Experiences	3
SS3990	Topics in the Social Science	3
SS4001	History of Social Thought	3
SS4120	Anthropology of International Development	3
SS4200	Environmental Anthropology	3
SS4220	Archaeological Thought in Society	3
SS4390	Seminar in Sustainability	3
SS4530	Deindustrialization and the Urban Environment	3
SS4550	History of Technology	3
SS4552	Historical Archaeology	3
SS4553	Material Culture Studies	3
SS4700	Communities and Research	3
SS4921	Washington Experience Seminar	var
SS1XXX	HASS Elective ( <i>transfer credit only</i> )	3
SS2XXX	HASS Elective ( <i>transfer credit only</i> )	3
SS3XXX	HASS Elective ( <i>transfer credit only</i> )	3
SS4XXX	HASS Elective ( <i>transfer credit only</i> )	3
IS2002	International Studies in situ – Soc/Behav Sci ( <i>study abroad credit only</i> )	var
IS3002	International Studies in situ – Soc/Behav Sci ( <i>study abroad credit only</i> )	var

**Restricted HASS**

- No more than 3 credits

BL2001	Valuing the Great Lakes	3
BL3970	Current Health Issues	3
ED3510	Communicating Science I	3
ENT2961	Teaming in the Enterprise	2
ENT2962	Communication Contexts	1
FIN2400	Financial Literacy	3
FW3113	Alberta: Place, People, History	3
FW3116	Ethnobotany	3
FW3765	Maple Syrup Management and Culture	1
FW4111	Indigenous Natural Resources Management	3
GE2100	Environmental Geology	3
HON3150	Pavlis Seminar II	1
HON3410	Culture, Language, and Project Development	3
HON4150	Pavlis Seminar III	1
KIP2600	Introduction to Public Health	2
MA4945	History of Mathematics	3

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## Co-curricular Courses 2019-2020 Academic Year

Three co-curricular units are required for graduation. A unit involves the same time commitment as an academic semester credit but is not included in calculation of the GPA, nor in the overall degree-credit requirement. Repeatable courses may not be repeated for co-curricular general education credit.

As part of the co-curriculum, titles of courses successfully completed will appear on the student's transcript with a pass/fail grade. These hours will be included as "earned hours" but will not be included in "GPA hours."

Enrollment in a co-curricular activity will count toward satisfactory progress for financial aid purposes and toward status as a full-time student.

### Co-curricular Courses

AF0120	Physical Conditioning	.5	PE0175	Hiking	.5
AF0130	Air Force Elite Forces Workout	1	PE0176	Outdoor Adventure	var
AF0230	Precision Drill Team	.5	PE0177	Fundamentals of Laser Tag	.5
AF0340	Field Training	1	PE0205	Bowling II	.5
AR0340	Field Training	1	PE0206	Intermediate Golf	.5
AR0340	Field Training	1	PE0209	Intermediate Aikido	.5
AR0340	Field Training	1	PE0210*	Special Topics in Physical Education	.5
AR2068	Fall Military Physical Conditioning	1	PE0215	Intermediate Swimming	.5
AR2069	Spring Military Physical Conditioning	1	PE0216	Intermediate Basketball	.5
AR3068	Physical Training Leadership I	1	PE0217	Intermediate Hockey	.5
AR3069	Physical Training Leadership II	1	PE0218	Intermediate Weight Training	.5
FA2400	Huskies Pep Band	1	PE0219	Intermediate Fitness Training	.5
FA2402	Campus Concert Band	1	PE0220	Intermediate Alpine Ski (Downhill)	.5
FA2570	Private Music Instruction	.5	PE0221	Intermediate Snowboarding	.5
PE0101	Flag Football	.5	PE0226	Intermediate Volleyball	.5
PE0103	Bait and Fly Casting	.5	PE0230	Water Polo	.5
PE0104	Ultimate Frisbee	.5	PE0232	Intermediate Soccer	.5
PE0105	Beginning Bowling I	.5	PE0235	Intermediate Cross Country Ski	.5
PE0106	Beginning Golf	.5	PE0237	Intermediate Table Tennis	.5
PE0107	Floor Hockey	.5	PE0238	Intermediate Racquetball/Squash	.5
PE0108	Broomball	.5	PE0239	Intermediate Badminton	.5
PE0109	Aikido	.5	PE0240	Intermediate Tennis	.5
PE0113	Disc Golf	.5	PE0246	Intermediate Billiards	.5
PE0115	Beginning Swimming	.5	PE0248	Intermediate Skating	.5
PE0116	Beginning Basketball	.5	PE0250	Paintball	.5
PE0117	Beginning Hockey	.5	PE0252	Social Dance II	.5
PE0118	Beginning Weight Training	.5	PE0253	Aerobics II	.5
PE0119	Beginning Fitness Training	.5	PE0256	Intermediate Mountain Biking	.5
PE0120	Beginning Alpine Skiing (Downhill)	.5	PE0266	Running for Fitness	.5
PE0121	Beginning Snowboarding	.5	PE0267	Intermediate Yoga	.5
PE0122	Softball	.5	PE0270	Cardio TaeKwonDo	.5
PE0123	Telemark Skiing	.5	PE0315	Fitness Swimming	.5
PE0125	Sand Volleyball	.5	PE0320	Advanced Skiing	.5
PE0126	Beginning Volleyball	.5	PE0321	Advanced Snowboarding	.5
PE0130	Water Aerobics	.5	PE0330	Club Sports	.5
PE0132	Beginning Soccer	.5	PE0352	Social Dance III	.5
PE0135	Beginning Cross Country Skiing	.5	PE0353	Aerobics III	.5
PE0137	Table Tennis	.5	PE0355	Advanced Road Biking	.5
PE0138	Beginning Racquetball/Squash	.5	PE0367	Mindful Yoga	.5
PE0139	Beginning Badminton	.5	PE0420	Ski Instructor Training	.5
PE0140	Beginning Tennis	.5	PE0421	Snowboard Instructor Training	.5
PE0145	Beginning Rifle	.5	PE0425*	Intramurals	.5
PE0146	Beginning Billiards	.5	PE0430	Club Sports Leadership	.5
PE0148	Beginning Skating	.5	PE0450	Physical Education Fusion – Full	1
PE0150	Outdoor Lifetime Activities	.5	PE0520	Alpine Skiing Fusion	.5
PE0151	Indoor Lifetime Activities	.5	PE0521	Snowboard Fusion	.5
PE0152	Social Dance I	.5	PE1000	Fitness Foundations	1
PE0153	Aerobics I	.5	PE1010	Active Michigan Tech	1
PE0155	Beginning Road Biking	.5	PE1028	Ski Patrol (Hill)	1
PE0156	Beginning Mountain Biking	.5	PE1101	Team Sports	1
PE0166	Moving for Fitness	.5	PE1105	Bowling	1
PE0167	Beginning Yoga	.5	PE1106	Golf	1
PE0168	Beginning Pilates	.5	PE1113	Disc Sports	1
PE0169	Indoor Cycling	.5	PE1118	Weight/Fitness Training	1
PE0170	TaeKwonDo and Hapkido I	.5	PE1119	Conditioning	1
			PE1138	Racquet Sports	1
			PE1140	Tennis	1
			PE1169	Indoor Cycling	1
			PE1170	TaeKwonDo	1
			PE1210	Special Topics	1
			PE1215	Introduction to Backcountry Travel	1
			PE1220	Introduction to Canoeing	1
			PE1225	Indoor Rock Climbing	1
			PE1230	Introduction to Kayaking	1
			PE1235	Introduction to Log Rolling	1
			PE1240	Snowshoeing	1
			PE1245	Wilderness First Responder	1
			PE1435	Self-Defense for Women	1

**Co-curricular Courses cont.**

PE1436	Self-Defense for Men	1
PE1470	Lifeguard Swimming	1
PE2010	Varsity Football	1
PE2020	Varsity Basketball	1
PE2030	Varsity Hockey	1
PE2040	Varsity Nordic Skiing	1
PE2050	Varsity Soccer	1
PE2080	Varsity Track	1
PE2090	Varsity Tennis	1
PE2130	Varsity Volleyball	1
PE2140	Varsity Cross Country	1
PE2150	Cross Training	1
PE0XXX	Co-Curricular Activities ( <i>transfer credit only</i> )	.5
PE1XXX	Co-Curricular Activities ( <i>transfer credit only</i> )	1

\*PE0210 may be repeated once for general education co-curricular credit if topics are different. PE0425 may also be repeated once for general education co-curricular credit.

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