

B.S. Economics (BEC) Degree (Fall 2025 and later)

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First Year – Fall

Course	Prerequisites	Credit
MA1035/1161/1161-Calculus (Essential Ed Math)	MA 1032 or MA 1031 or MA 1120 or ALEKS Math Placement >= 76 or CEEB Calculus AB >= 2 or CEEB Calculus BC >= 2 or CEEB Calculus AB Subscore >= 2 or ACT Mathematics >= 26 or SAT MATH SECTION SCORE-M16 >= 610	4-5
ACC2000 -Accounting Principles I (<i>Essential Ed STEM</i>)		3
EC2001 -Principles of Economics (<i>Essential Ed Foundations in the Human World</i>)	MA1030 or MA1031 or MA1032 or MA1135/1160/1161/1121 ©	3
UN1015 Composition		3
UN1013/2013 (Essential Ed-Seminar)		1
Total		14-15

Second Year – Fall

Course	Prerequisites	Credit
BUS2300 -Quantitative Problem Solving	BUS2100 or MA2720/2720/3710/3720	3
EC3100 -International Economics	EC2001	3
EC3003 -Macroeconomic Theory	EC2001 and MA1135/1160/1161/1121	3
<i>Essential Education</i> - Natural & Physical Science		3
Pathway Course	See list on back	3
Total		15

Third Year – Fall

Course	Prerequisites	Credit
FIN3000 -Principles of Finance OR EC3400 -Economic Decision Analysis	ACC2000 and MA1030 or MA1031 or MA1032 or MA1135/1160/1161/1121 OR Jr or Sr	3
OSM3000 -Operations & Supply Chain Management	MA1135/1160/1161/1121 and MA2710/2720/3710/3720 or EET2010 or BUS2100 or CEE3710 and Jr or Sr	3
Pathway Course		3
<i>Essential Education</i> - Arts & Culture		3
Total		12

Fourth Year – Fall

Course	Prerequisites	Credit
EC4200 -Econometrics	(EC2001/3002/3003) and (BUS2100 or MA2720/2720/3710)	3
Pathway Course		3
Pathway Course		3
<i>Essential Education</i> – Communication Intensive		3
<i>Essential Education</i> - Activities for Well-Being and Success		1
Total		13

First Year – Spring

Course	Prerequisites	Credit
MA2720 Statistical Methods	MA1030 or MA1032	4
MKT3000 -Principles of Marketing		3
BUS2200 -Business Law (<i>Essential Ed SHAPE</i>)		3
MIS2000 -IS/IT Mgt (<i>Essential Ed STEM</i>)		3
<i>Essential Education</i> - Activities for Well-Being and Success		1
Total		14

Second Year – Spring

Course	Prerequisites	Credit
BUS3000 -Intr to Business Analytics	BUS2300	3
EC3002 -Microeconomic Theory	EC2001 and MA1135/1160/1161/1121	3
MGT2000 -Team Dynamics & Decision Making	So, Jr, or Sr	3
Pathway Course	See list on back	3
<i>Essential Education</i> - Activities for Well-Being and Success		1
Total		13

Third Year – Spring

Course	Prerequisites	Credit
Professional Development Course: HU3120 -Tech and Prof Comm or HU2830 -Public Speaking or BUS3900 -Business Internship	Jr or Sr and UN1015 None Submit Proposal in advance	3
Pathway Course		3
Pathway Course		3
<i>Essential Education</i> - Intercultural Competency		3
Total		12

Fourth Year – Spring

Course	Prerequisites	Credit
Pathway Course		3
Pathway Course OR Free Electives		3 OR Variable based on Academic Planning
Free Electives		Variable based on Academic Planning
<i>Essential Education Experience</i>		3
Total		9-?

Grand Total = 120 Credits

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1. **Essential Education Requirements:** 24 total credits. Required courses are *Essential Ed Seminar* (UN1013 or UN2013, 1 credit), *Composition* (UN1015-3 credits), a *Natural and Physical Science* course (3 credits), a *Communication Intensive* course (3 credits), an *Arts & Culture* course (3 credits), an *Intercultural Competency* course (3 credits), an *Essential Education Experience* course (3 credits), and 3 credits of *Activities for Well-being and Success*. The Essential Education and Activities for Well-Being list is available online at: <https://www.mtu.edu/registrar/pdfs/essential-education-course-lists-2025-2026.pdf>

2. Select one of the four (4) pathway options below.

PATHWAY 1-ANALYTICAL ECONOMICS (27 credits total):

Required (13 credits)

- **EC4100**-Math Econ (3 cr); F
- **MIS3100**-Business Database Modeling and Mgt (3 cr); F
- **MA2160**-Calculus with Technology II (4 cr); F, Sp, Su
- **CS1121**-Intro to Programming I (3 cr); F, Sp, Su

Economics Electives (select 9-12 credits)

- **EC3300**-Industrial Organization (3 cr); F
- **EC4050**-Game Theory (3 cr); F, Sp
- **EC4400**-Banking & Financial Institutions (3 cr); F
- **EC4500**-Public Sector Econ (3 cr); On Demand
- **EC4710**-Labor/Human Resource Econ (3 cr); Sp Even Yrs
- **EC5300**-Managerial Economics (3 cr); Sp
- **EC4900**-Research (1-6 cr); On Demand
- **EC4990**-Special Topics (1-6 cr); On Demand

Other Electives (select 2-6 credits)

- **MIS2100**-Intro to Business and Analytics Programming (3 cr); F
- **MIS4400**-Business Intelligence and Analytics (3 cr); F, Sp
- **MKT3600**-Marketing Data Analytics (3 cr); Sp
- **FIN4600**-FinTech Foundations (3 cr); F
- **ACC4000**-Accounting Data Analytics (3 cr); F
- **MA3160**- Multivariable Calc w/Technology (4 cr); F, Sp, Su
- **MA2320**-Elementary Linear Algebra (2 cr); F, Sp, Su
- **MA3520**-Elementary Differential Equations (2 cr); F, Sp, Su
- **MA3720**-Probability (3 cr); F, Su
- **MA4780**-Time Series Analysis and Forecasting (3 cr); Sp
- **FW3540**-Intro to Geo Info Systems for Nat Res Mgt (4 cr); Sp
- **GE3250**-Computational Geosciences (3 cr); Sp

PREREQS:

(EC2001/3002/3003) and
(BUS2100 or MA2720/2720/3710)
MIS2000 or MIS2100 or CS1122 or CS1131
MA1135/1160/1161/1121
MA1031 © or MA1032 © or MA1120 ©

EC2001
So, Jr or Sr
EC3003 or FIN3000
EC2001
EC2001
Graduate Level
EC2001
EC2001

So, Jr or Sr
(MIS2100 or CS1122 or CS1131) and
(MIS3100 or CS3425)
MKT3000 and BUS2100 or MA2720/2720/3710/3720
FIN3000 or EC3400
ACC2000 and ACC3000 ©
MA2160 or CEEB Calculus BC > = 3
MA1160 or MA1161 or MA1135 or MA1121
MA 2160 and (MA 2320 or MA 2321 or MA 2330)
MA 2160 and (MA 2320 or MA 2321 or MA 2330)
(MA 2710 or MA 2720 or MA 3710 or MA 3715)
and (MA 3720 or EE 3180)
MA 2710 © or MA 2720 © or MA 3710 © or
ENVE 3502 or CEE 3502 ©
MA1135/1160/1161/1121 and So, Jr, or Sr

PATHWAY 2 BUSINESS ECONOMICS (24 credits total):

Economics Electives (select 12-15 credits)

- **EC3300**-Industrial Organization (3 cr); F
- **EC4050**-Game Theory (3 cr); F, Sp
- **EC4100**-Math Econ (3 cr); F
- **EC4400**-Banking & Financial Institutions (3 cr); F
- **EC4500**-Public Sector Econ (3 cr); On Demand
- **EC4710**-Labor/Human Resource Econ (3 cr); Sp Even Yrs
- **EC4900**-Research (1-6 cr); On Demand
- **EC4990**-Special Topics (1-6 cr); On Demand

Business Electives (select 9-12 credits)

- **ACC2100**-Accounting Principles II (3 cr); F, Sp
- **ACC3000**-Intermediate Accounting (3 cr); F
- **MIS2100**-Intro to Business and Analytics Programming (3 cr); F
- **MIS3000**-Business Process Mgt and Automation (3 cr); Sp
- **MGT3000**-Organizational Behavior (3 cr); F, Sp
- **MGT3800**-Innovation & Entrepreneurship (3 cr); F, Sp
- **FIN4000**-Investment Analysis (3 cr); F

PREREQS:

EC2001
So, Jr or Sr
(EC2001/3002/3003) and
(BUS2100 or MA2720/2720/3710)
EC3003 or FIN3000
EC2001
EC2001
EC2001
EC2001

ACC2000
ACC3000 and FIN3000 ©
So, Jr or Sr
MIS2000
So
So, Jr or Sr
FIN3000 or EC3400 and MA2710/2720/3710

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Pathway 2 Business Electives continued

- | | |
|---|---|
| • FIN4100 -Advanced Financial Management (3 cr); F | FIN3000 or EC3400 |
| • FIN4801/4802/4803 -Applied Portfolio Management Program (APMP) (6 cr); SU, F, Sp | Jr or Sr; Must Apply |
| • MKT3200 -Consumer Behavior & Culture (3 cr); F | MKT3000 |
| • MKT3600 -Marketing Data Analytics (3 cr); Sp | MKT3000 and BUS2100 or MA2720/2720/3710/3720 |
| • OSM3150 -Intro to Supply Chain Management (3 cr); F | OSM3000 © and Jr or Sr |
| • OSM3600 -Procurement and Supply Management (3 cr); F | Jr or Sr |
| • ENG1101 -Eng Analysis & Problem Solving (3 cr); F, Sp, Su | MA1031/1032/1120/1160/1161/1121/2160 or 3160© |

PATHWAY 3-ENVIRONMENTAL & NATURAL RESOURCE ECONOMICS (24 credits):

Required (6 credits)

- **EC4640**-Natural Resource Econ (3 cr); F
- **EC4650**-Market Failure & the Environment (3 cr); Sp Even Yrs

Economics Electives (select 6-12 credits)

- **EC3300**-Industrial Organization (3 cr); F
- **EC4050**-Game Theory (3 cr); F, Sp
- **EC4100**-Math Econ (3 cr); F
- **EC4500**-Public Sector Econ (3 cr); On Demand
- **EC4620**-Energy Economics (3 cr); F Odd Yrs
- **EC4630**-Mineral Industry Econ (3 cr); On Demand
- **EC4710**-Labor/Human Resource Econ (3 cr); Sp Even Yrs
- **EC4900**-Research (1-6 cr); On Demand
- **EC4990**-Special Topics (1-6 cr); On Demand

Other Electives (select 6-12 credits)

- **FW2018**-Intro to Circular Economy (3 cr); Sp
- **FW3510**-Outdoor Recreation and Tourism (3 cr); Sp
- **FW3540**-Intro to Geographic Info Systems for Nat Res Mgt (4 cr); Sp
- **FW4080**-Forest Economics and Finance (3 cr); Sp
- **FW4545**-Map Design with GIS (2 cr); F, Sp
- **SS3110**-Food Systems and Sustainability (3 cr); F
- **SS3315**-Population, Health and Environment (3 cr); F Odd Yrs
- **SS3630**-Environmental Policy and Politics (3 cr); Sp
- **SS3800**-Energy Policy and Technology (3 cr); Sp
- **BL4421**-Lake Superior Exploration (3 cr); Su Odd Yrs
- **GE2020**-Intro to Mining Engineering and Mining Methods (2 cr); F
- **CEE3502**-Environmental Monitoring and Measurement Analysis (3 cr); Sp
- **CEE3503**-Environmental Engineering (3 cr); F, Sp

PREREQS:

EC2001 or EC3002 or FW4080

EC2001 or EC3002

PREREQS:

EC2001

So, Jr or Sr

(EC2001/3002/3003) and

(BUS2100 or MA2720/2720/3710)

EC2001

EC2001

EC2001

EC2001

EC2001

EC2001

PREREQS:

MA 2710 © or MA 2720 © or MA 3710 © or
ENVE 3502 or CEE 3502 ©

So, Jr or Sr

FW3540 or FW5550

UN1015

UN1015

UN1015

UN1015

Jr or Sr

MA2160 and (CH1150 and CH1151)

MA2160 and CH1112 or (CH1150 and CH1151)

Pathway 4-General Economics (24 credits):

Economics Electives (select 15-18 credits)

- **EC3300**-Industrial Organization (3 cr); F
- **EC4050**-Game Theory (3 cr); F, Sp
- **EC4100**-Math Econ (3 cr); F
- **EC4400**-Banking & Financial Institutions (3 cr); F
- **EC4500**-Public Sector Econ (3 cr); On Demand
- **EC4620**-Energy Economics (3 cr); F Odd Yrs
- **EC4630**-Mineral Industry Econ (3 cr); On Demand
- **EC4640**-Natural Resource Econ (3 cr); F
- **EC4650**-Market Failure & the Environment (3 cr); Sp Even Yrs
- **EC4710**-Labor/Human Resource Econ (3 cr); Sp Even Yrs
- **EC4900**-Research (1-6 cr); On Demand
- **EC4990**-Special Topics (1-6 cr); On Demand

Other Free Electives (6-9 credits)

Free Elective credits may be required depending on the number of credits completed in major requirements. Any coursework is allowable, excluding co-curricular and coursework below the 1000-level.

PREREQS:

EC2001

So, Jr or Sr

(EC2001/3002/3003) and

(BUS2100 or MA2720/2720/3710)

EC3003 or FIN3000

EC2001

EC2001

EC2001

EC2001 or EC3002 or FW4080

EC2001 or EC3002

EC2001

EC2001

EC2001

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3. **Prerequisite** (pre-req) course must be successfully completed **PRIOR** to taking the subsequent course.
Concurrent Prerequisites (concurrent noted by ©) may be taken at the same time, although it is not necessary if the prerequisite course is completed first.
Required Corequisite (co-req) courses that **MUST** be taken together in the same semester.
Class Standing: So (Sophomore Standing earned 30 credits) Jr (Junior Standing earned 60 credits), Sr (Senior Standing earned 90 credits)
Semester Offered: Noted under electives with F (Fall), Sp (Spring), Su (Summer) or On Demand (no anticipated offering but may show in the schedule, consult COB advisor)
4. **Math:** Students are placed into an initial math course based on ACT/SAT math score, the online ALEKS assessment, or a math placement exam score for credit (AP, IB, CLEP).
5. **Transfer, Advanced Placement, or study abroad courses** are not included in credit hours used for GPA calculations. Transfer credit is awarded for Michigan Tech equivalent course work only if a grade of 'C' or better (2.00/4.00) or equivalent is earned at a transfer institution. Study abroad credit will be awarded based on passing a course according to equivalent international standards. Advanced Placement credit is awarded according to published AP Exam score standards (also IB and CLEP).

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