1) Course Information

Is this a half-semester course proposal?  ☐ Yes  ☐ No

NOTE: All half-semester courses must follow rules set in Faculty Senate Proposal 4-00. See Senate website for details: http://www.sas.it.mtu.edu/usenate/propose/03/10-03.htm

Course Prefix/Number (i.e. MEEM 2110): FW xxxx

Course Title (abbreviated; used on transcript - Up to 30 characters including spaces)

Natural Resourc. Assess. & Plan.

Alternative Title for Catalog (Up to 100 characters including spaces)

Natural Resources Assessment & Planning

2) Credits

Number of credits assigned to this course 3

OR

Range of credits if variable ☐ to ☐ (Number of credits to be taken in a given semester)

3) Schedule

Contact Hours per Week (Lec & Rec: 1 credit = 1 contact hour, Lab: 1 credit = 1-3 contact hours. (i.e. a 3-credit course may be 2 contact hours of lecture or recitation and up to 3 contact hours of lab OR 1 contact hour of lecture or recitation and up to 6 contact hours of lab)

☐ 2 Lecture

☐ 1 Recitation

☐ 1 Lab

OR

Research Course? ☐ Yes  ☐ No

OR

Special Topics Course? ☐ Yes  ☐ No

4) Additional Credits

May students receive additional credits by taking and passing this course more than once?

☐ No

☐ Yes, for a maximum of ______ credits. (Must be a multiple of the course credits, i.e. Research or Special Topics)

☐ Yes, for an unlimited number of credits. (i.e. Music, Varsity sports, etc.)
5) Pass/Fail
Will this course be offered as a pass/fail option ONLY? (grade of S or E)  □ Yes  □ No

6) Cross Listed/Equivalent Course
Cross Listed: Is there an identical course offered in a different subject or at a different level?  □ Yes  □ No
If yes, what is the other subject and course number? __________________________

Equivalent Course: Does this course replace a dropped course with no change in course content for degree requirements, prerequisites, and repeating purposes?  □ Yes  □ No
If yes, what is the subject and course number of the dropped course? __________________________

7) Corequisites and Prerequisites

Corequisites are courses that are REQUIRED to be taken at the SAME TIME as this course (courses MUST be offered during the same term):

Required corequisite course(s):
____________________________________
____________________________________

Prerequisites are courses that are REQUIRED to be taken PRIOR to enrollment in this course. Select appropriate box and use parentheses where needed.

Required prerequisite course(s):
1 ________________________
□ And  □ Or 2 ________________________
□ And  □ Or 3 ________________________
□ And  □ Or 4 ________________________
□ And  □ Or 5 ________________________
□ And  □ Or 6 ________________________

A concurrent prerequisite is a defined prerequisite course (from list above) that MAY be taken EITHER simultaneously in the same semester OR in a prior semester. Indicate below applicable courses.

Concurrent prerequisite course(s):
____________________________________
____________________________________
____________________________________
8) Catalog Course Description
The traditional catalog style description for a course should be **40 words or less**. If course is proposed as a half-semester course, please include that information in the description. Please refer to the Course Proposal Guide for examples and suggestions on developing a course description.

Provides a capstone experience by integrating techniques from the natural resources core courses. Covers resource assessment and the development of management plans that describe alternatives for achieving desired management goals and objectives.

---

9) Registration Restrictions
- If permission is **always required** for registration purposes (a student cannot enter the course without department or instructor signature), please select the appropriate permission.

**Do not select unless EVERY STUDENT must get "SIGNED INTO" the class.**

- [ ] Department  OR  - [ ] Instructor

- Students who register for this course may be restricted by their **College/School OR their Major**. Please indicate if any college or major restrictions should be applied to this course. If there are no restrictions please indicate in the check box provided.

- [ ] No College/School Restrictions

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<th>Colleges/Schools who MAY NOT enroll (EXCLUDE)</th>
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- [ ] No Major Restrictions

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-- Restrictions continued on next page --
A restriction may also be placed on **Class Standing** (freshman, sophomore, junior, senior, graduate). Please indicate if any class restrictions should be applied to this course. If there are no restrictions please indicate in the check box provided.

- **No Class Restrictions**

Class of students who MAY NOT enroll (EXCLUDE)

-OR-

Class of students who MAY enroll (INCLUDE)

10) **Semester(s) Offered**

- □ Fall  
- □ Spring  
- □ Summer  *(Check all that apply)*

OR  

- □ On Demand

If offered in a specific semester, will the course be offered only in alternate years?  

- □ Yes  
- □ No

If yes, what will be the starting academic year? *(i.e. 2014-15 or 2015-16)*

11) **General Education**

To propose this course for inclusion on the HASS, HASS Restricted, STEM, or STEM Restricted list, please complete the appropriate proposal form available at: [http://www.mtu.edu/registrar/faculty-staff/course-proposal/](http://www.mtu.edu/registrar/faculty-staff/course-proposal/).

12) **Co-Curricular**

To propose this course for inclusion on the Co-Curricular List please complete a new **Co-Curricular Proposal** form available at: [http://www.mtu.edu/registrar/faculty-staff/course-proposal/](http://www.mtu.edu/registrar/faculty-staff/course-proposal/).

13) **Course Computing Lab and Expendables Fees**

**DO NOT RECORD FEE INFORMATION HERE.** Submit new course fee information on the Blank Course Fees Form available at: [http://www.mtu.edu/registrar/faculty-staff/course-proposal/](http://www.mtu.edu/registrar/faculty-staff/course-proposal/).
14) Degree Programs which this course will affect

List the degrees, minors, and certificates in which this course will be required or used as an elective: ***

Degree Program(s):
Natural Resources Management

*** Be sure to adjust the appropriate degree audits in sections 7 and 8 in your department's binder.

15) Course Rationale (Required)

Natural resource managers require experience synthesizing and applying information regarding impacts on natural resources (i.e., air, water, soil, vegetation, wildlife) of land and water use decisions, management and extraction of resources (wood and other biomaterials, fish, wildlife), recreation, global change, natural disturbance, and energy and mineral exploration. This capstone course creates the opportunity to synthesize, develop, and apply the cumulative knowledge, skills, abilities, and behaviors gained in this major to the sustainable management of natural resources.

16) Faculty Contact

Faculty proposing this course (please print): Name _____________________________

Email _____________________________

DID YOU USE RED INK TO COMPLETE THIS FORM?
IF NOT, PLEASE HIGHLIGHT YOUR ANSWERS SO NOTHING IS MISSED IN PROCESSING.
1) Course Information

Is this a half-semester course proposal?  □ Yes  □ No

NOTE:  All half-semester courses must follow rules set in Faculty Senate Proposal 4-00.  See Senate website for details:  http://www.sas.mtu.edu/ senate/proposal/03/10-03.htm

Course Prefix/Number (i.e. MEEM 2110):  FW 4710

Course Title (abbreviated; used on transcript - Up to 30 characters including spaces)
Environmental Biogeochemistry

Alternative Title for Catalog (Up to 100 characters including spaces)
Environmental Biogeochemistry

2) Credits

Number of credits assigned to this course  3

OR

Range of credits if variable □ to □ (Number of credits to be taken in a given semester)

3) Schedule

Contact Hours per Week (Lec & Rec: 1 credit = 1 contact hour, Lab: 1 credit = 1-3 contact hours.  i.e. a 3-credit course may be 2 contact hours of lecture or recitation and up to 3 contact hours of lab OR 1 contact hour of lecture or recitation and up to 6 contact hours of lab)

□ Lecture  □ Recitation  □ Lab

OR

Research Course?  □ Yes  □ No

OR

Special Topics Course?  □ Yes  □ No

4) Additional Credits

May students receive additional credits by taking and passing this course more than once?

□ No

□ Yes, for a maximum of _____ credits.  (Must be a multiple of the course credits, i.e. Research or Special Topics)

□ Yes, for an unlimited number of credits.  (i.e. Music, Varsity sports, etc.)
5) Pass/Fail
Will this course be offered as a **pass/fail option ONLY?** (grade of S or E) ☐ Yes ☐ No

---

6) Cross Listed/Equivalent Course

**Cross Listed:** Is there an identical course offered in a different subject or at a different level? ☐ Yes ☐ No

If yes, what is the other subject and course number? __________________________

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Required corequisite course(s):

________________________________________

________________________________________

**Prerequisites** are courses that are **REQUIRED to be taken PRIOR** to enrollment in this course. Select appropriate box and use parentheses where needed.

Required prerequisite course(s):

1. CH 1150

☐ And ☐ Or 2 __________________________

☐ And ☐ Or 3 __________________________

☐ And ☐ Or 4 __________________________

☐ And ☐ Or 5 __________________________

☐ And ☐ Or 6 __________________________

A **concurrent prerequisite** is a defined prerequisite course (from list above) that **MAY** be taken **EITHER** simultaneously in the same semester **OR** in a prior semester. Indicate below applicable courses.

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8) Catalog Course Description
The traditional catalog style description for a course should be **40 words or less**. If course is proposed as a half-semester course, please include that information in the description. **Please refer to the Course Proposal Guide for examples and suggestions on developing a course description.**

Impacts of decisions regarding landuse, land management, and energy and mineral exploration on natural resources (i.e., air, water, land, and biodiversity) are discussed using the framework of the biogeochemical cycles of the elements.

---

9) Registration Restrictions

- If permission is **always required** for registration purposes (a student cannot enter the course without department or instructor signature), please select the appropriate permission.

  **Do not select unless EVERY STUDENT must get "SIGNED INTO" the class.**

  [ ] Department  OR  [ ] Instructor

- Students who register for this course may be restricted by their **College/School** OR their **Major**. Please indicate if any college or major restrictions should be applied to this course. If there are no restrictions please indicate in the check box provided.

  [ ] No College/School Restrictions
  
  Colleges/Schools who MAY NOT enroll (EXCLUDE)
  __________________________________________
  
  -OR-
  
  Colleges/Schools who MAY enroll (INCLUDE)
  __________________________________________

  [ ] No Major Restrictions
  
  Majors that MAY NOT enroll (EXCLUDE)
  __________________________________________
  
  -OR-
  
  Majors that MAY enroll (INCLUDE)
  __________________________________________

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- **No Class Restrictions**

  Class of students who May NOT enroll (EXCLUDE)

  [Blank]

  -OR-

  Class of students who May enroll (INCLUDE)

  [Blank]

10) **Semester(s) Offered**

- [ ] Fall
- [ ] Spring
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**OR**

- [ ] On Demand

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*** Be sure to adjust the appropriate degree audits in sections 7 and 8 in your department’s binder.

15) Course Rationale (Required)

Natural resource managers require an understanding of how decisions regarding landuse, land management, and energy and mineral exploration impact natural resources (i.e., air, water, land, and biodiversity). Landuse changes and energy and mineral exploration perturb the biogeochemical cycles of the elements and affect the quality of natural resources. Thus, a fundamental understanding of relationships between biogeochemical cycles of the the elements and the quality of natural resources is required for natural resource managers to make responsible decisions to maintain our natural resources.

16) Faculty Contact

Faculty proposing this course (please print): Name Paul V. Doskey

Email pvdoskey@mtu.edu

DID YOU USE RED INK TO COMPLETE THIS FORM?
IF NOT, PLEASE HIGHLIGHT YOUR ANSWERS SO NOTHING IS MISSED IN PROCESSING.