



# North Central Michigan College Master Course Syllabus

## PART 1:

Course Name: Paradigms In Sustainability

Course Number: ENVS 255

Credit Hrs. 3      Lecture Hrs. 3      Lab Hrs.      Clinical Hrs.      Variable Hrs.

Total Hours of Instruction: 3      Total Contact Hours: 52.8  
(Total Contact hour's formula: (lecture hrs. + lab hrs. + clinical hrs) x 17.6)

### Course Description:

Examine how different paradigms directly shape our approaches to the challenge of living sustainably on earth. Course compares and contrasts conventional paradigms and approaches to sustainability with alternative models, including indigenous cultural views of "right livelihood," and new innovative models (biomimicry, permaculture, applications of dynamic systems theory.)

Prerequisite (s): SOC 175

Co-requisite (s): None

### Course Objectives:

- Describe, define and understand what a "paradigm" is, and will be able to give historical examples illustrating clearly how and why certain paradigms have shifted.
- Describe and differentiate between different cultural and scientific paradigms, theories and approaches to environmental problems.
- Identify, describe and characterize the paradigm(s) that have previously shaped their outlook on issues, the environment, and approaches to sustainability.
- Describe how knowledge from different cultural perspectives affects his or her interpretations of environmental problems.
- Knowledgeable, descriptive critical evaluation of competing cultural and scientific paradigms.
- Present in essentially error free prose their conclusions in two media, to generalized and specific audiences.

Reasonable accommodations can be provided for students with documented disabilities. Please contact Learning Support Services to arrange for these (231)348-6687 or (231)348-6817, Room 533 SCRC.



# North Central Michigan College Master Course Syllabus

## **PART 2:**

### **Course Objectives and Linked Lumina DQP Outcomes**

*See PART 3 of this syllabus for the complete language of each Lumina DQP outcome.*

*Please identify the Lumina DQP outcome(s) supported by the course objectives. List each course objectives (from PART 1), followed by the corresponding Lumina DQP Outcome number(s) in parentheses*

- Describe, define and understand what a “paradigm” is, and will be able to give historical examples illustrating clearly how and why certain paradigms have shifted. (DQP 2, 9)
- Describe and differentiate between different cultural and scientific paradigms, theories and approaches to environmental problems. (DQP 12, 18)
- Identify, describe and characterize the paradigm(s) that have previously shaped their outlook on issues, the environment, and approaches to sustainability. (DQP 17)
- Describe how knowledge from different cultural perspectives affects his or her interpretations of environmental problems. (DQP 12, 18)
- Knowledgeable, descriptive critical evaluation of competing cultural and scientific paradigms. (DQP 9)
- Present in essentially error free prose their conclusions in two media, to generalized and specific audiences. (DQP 1-3, 5-12, 14-16)



# North Central Michigan College Master Course Syllabus

## Suggested Methods of Instruction:

Lecture, film, guest presenters, critical comparisons and field examinations of applied models in sustainability, peer group, group discussions and evaluations, possible cross-cultural dialogues and exchange in real-time with environmental students from another culture

## Suggested Methods of Assessment and Evaluation:

Reading logs [DQP #'s 2-3, 6, 8, 12]. Weekly Reading Quizzes [DQP #'s 2,-3, 6, 10]. Research, Compare and Contrast Essay Assignments, plus Final essay exam [DQP #'s 1-3, 5-12, 14-16]. Students will also make a final presentation using a minimum of two forms of media, featuring their critical evaluation of competing paradigms and field models, and offering their considered solutions to a specific environmental problem [DQP #'s 1-3, 5-12, 14-16]

## Adopted Text at Time of Course Adoption/Revision:

- *Braiding Sweetgrass*, by Robin Wall Kimmerer
  - *The Systems View of Life*, by Fritjof Capra and Pier Luigi Luisi
- (other, not required supporting texts, for selected readings and research include: *The Sustainability Revolution*, by Andres R. Edwards; *Leadership and the New Science*, by Margaret Wheatley; *The Great Turning*, by David Korten)

## Topics Covered During the Semester:

*Sequence of topics and time allowance are at the discretion of the instructor*

- Week 1: Introductions
- Week 2: What is a “paradigm”? Why do paradigms shift?
- Week 3: Examining some previous major paradigm shifts in human science & culture
- Week 4: How do paradigms shift? Examining some previous major paradigm shifts in human science & culture
- Week 5: Exploring some of the dominant paradigms of today. How and why may they be failing us?
- Week 6: Exploring some of the dominant paradigms of today. How and why may they be failing us?  
Alternate paradigms for sustainability - Indigenous cultures
- Week 7: Alternate sustainability paradigms: Indigenous cultures, what they can teach us.
- Week 8: New paradigms of today: An introduction
- Week 9: New paradigms in the science of dynamic systems, and living systems
- Week 10: Paradigms in Sustainability: Biomimicry. Examining examples (i.e., in waste water treatment, industrial processes, agriculture, etc)
- Week 11: New paradigms in food production: Permaculture, polyculture, organics, year around farming, hydroponics, aquaculture, etc
- Week 12: New paradigms in energy needs: flow and distribution
- Week 13: New paradigms in human organizations, systems
- Week 14: “The Great Turning”: Potentialities for Change
- Week 15: Students final presentations, Students final essay exam
- Week 16: Conclusions

Part 1 & Part 2 approved by CRDAP on: 02 19 16

Part 2 approved by AD:

Date:

Part 2 approved by CRDAP Chair:

Date:

Rev02/15



# North Central Michigan College Master Course Syllabus

## **PART 3:**

**LUMINA DQP OUTCOMES** – Use this reference sheet for **PART 2** of Master Course Syllabus.

### **Specialized Knowledge**

1. Describes the scope and principal features of the field of study, citing at least some of its core theories and practices, and offers a similar explication of at least one related field.
2. Illustrates contemporary terminology used in the field.
3. Generates substantially error-free products, reconstructions, data, juried exhibits or performances as appropriate to the field.

### **Broad Integrative Knowledge**

4. Describes how existing knowledge or practice is advanced, tested and revised
5. Describes and examines a range of perspectives on key debates and their significance both within the field and in society.
6. Illustrates core concepts of the field while executing analytical, practical or creative tasks.
7. Selects and applies recognized methods of the field in interpreting characteristic discipline-based problems.
8. Assembles evidence relevant to characteristic problems in the field, describes the significance of the evidence, and uses the evidence in analysis of these problems.
9. Describes the ways in which at least two disciplines define, address and interpret the importance of a contemporary challenge or problem in science, the arts, society, human services, economic life or technology.

### **Intellectual Skills – Analytic Inquiry**

10. Identifies, categorizes and distinguishes among elements of ideas, concepts, theories and/or practical approaches to standard problems.

### **Intellectual Skills – Use of Information Resources**

11. Identifies, categorizes, evaluates and cites multiple information resources necessary to engage in projects, papers or performance in his or her program.

### **Intellectual Skills – Engaging Diverse Perspectives**

12. Describes how knowledge from different cultural perspectives would affect his or her interpretations of prominent problems in politics, society, the arts and/or global relations.

### **Intellectual Skills – Communication Fluency**

13. Presents accurate calculations and symbolic operations, and explains how such calculations and operations are used in either his or her specific field of study or in interpreting social and economic trends.
14. Presents substantially error-free prose in both argumentative and narrative forms to general and specialized audiences.

### **Applied Learning**

15. Describes in writing at least one substantial case in which knowledge and skills acquired in academic settings are applied to a challenge in a non-academic setting; applies that learning to the question; and analyzes at least one significant concept or method related to his or her course of study in light of learning outside the classroom.
16. Locates, gathers and organizes evidence on an assigned research topic addressing a course-related question or a question of practice in a work or community setting; offers and examines competing hypotheses in answering the question.

### **Civic Learning**

17. Describes his or her own civic and cultural background, including its origins and development, assumptions, and predispositions.
18. Describes diverse positions, historical and contemporary, on selected democratic values or practices, and presents his or her own position on a specific problem where one or more of these values or practices are involved.
19. Takes an active role in a community context (work, service, co-curricular activities, etc.), and examines the civic issues encountered and the insights gained from the community experience.

The Degree Qualifications Profile was adopted by CRDAP: April 11, 2012