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Spring 2-1-2019

ENSC 470.01: Agroecology

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ENSC 470- Agroecology
Tue./Thurs. 3:50-5:00p.m.
Liberal Arts #249

Course Syllabus

Instructor: Ethan Smith Office: Rankin Hall - EVST 201

E-mail: ethan.smith@mso.umt.edu

Office Hours: 1/10-2/21: Thursdays 2:00-3:30
2/22-5/3: By Appointment

Course Texts: The official text for the majority of this course will be *Agroecology: The Ecology of Sustainable Food Systems*: Second Edition (S.R. Gliessman, 2006). The bookstore will not carry the text this spring, and thus the following options are available:

- 1) Purchase (or rent) the text via online sources such as Amazon.com, Powells.com, etc.
- 2) Use one of 2 reserve copies: One is on course reserve at the Main Library, the other is a previous edition that I will leave in my mailbox in Rankin Hall. Both will be available for short-term use to either read or photocopy.

I realize that this is short notice, and that shipping can take a week or more. Thus, hard-copies of the first week of readings will be made available to you in class or posted on the course Moodle page. Supplemental readings will be posted on Moodle one week prior to their assigned reading dates, will be handed out in class, or will be e-mailed to you.

Attendance and Participation

*Regular course attendance and participation is **mandatory**, and will account for **10% of the total course grade**.* The principles of Agroecology are interconnected and build upon one another. Thus, students are expected to make up any missed readings and obtain notes from fellow classmates prior to the next scheduled class period.

The quality of our in-class discussions depends upon your ability to be prepared and engaged each day. While some teachers love nothing more than to lecture without ceasing for 90 minutes at a stretch, I prefer to let discussion and student input drive a portion of this class. Please complete any assigned readings **PRIOR** to the corresponding class period so that we can push our discussions as far as possible.

Assignments

- Students are expected to have completed assigned readings before class begins each day. Quizzes that cover these readings will be given periodically during the semester, as noted on the syllabus. Quizzes are given at the beginning of the class period and may not be made-up in the event of un-excused absence.
- Assignments will be due at the **beginning** of class on the day that they are due. Late assignments will lose 10% for each day that they are late.
- All assignments not completed in class must be in typed, double-spaced, 12 pt. font format.
- Some assignments, including the debate project, may involve group work and/or group participation. While groups shall receive one collective grade, any individual(s) deemed to have shirked their portion of work will receive a grade commensurate with their effort.

Course Evaluation/Assignment Value

- Class Participation 40 pts
- Quizzes/ assignments (3) 90 pts
- Group Debates 120 pts
- Final Exam/project 150 pts

Total 400 pts

Grading Scale:	Grade	Point Total
	A	360-400
	B	320-359
	C	280-319
	D	240-279
	Fail	Below 240

Debate Project:

The main project during the semester will be a debate project, which shall include both a written portion and an in-class presentation that loosely follows a classic debate format. Written reports shall be completed on an individual level by each student, while the debate presentation will be done in teams of two. A specific assignment sheet and detailed explanation will be provided toward the end of February.

Academic Conduct:

Though it should be understood without being stated, the submission of any work that is not originally your own shall constitute plagiarism and be treated as academic misconduct. This includes the copying of any homework, sharing answers during quizzes or exams, or submitting written work without the clear citation of your sources. Scientific and academic fraud not only diminishes the reputation of an individual, but can tarnish the work of other, honest scientists working within the field. It's not worth it. For the sake of scientific truth, and the sake of your grade, don't do it.

Students wishing to clarify rules regarding plagiarism and/or academic misconduct should consult section IV of the University of Montana Code of Conduct.

Tentative Course Schedule*

*dates subject to change with reasonable notice

Day/Date	Class Topic	Reading	Quiz/Assignment
Thurs. Jan 10	Introductions, Syllabus, Course Goals, etc.		
Tue. Jan 15	The Agroecosystem Concept	GL ch2	
	<i>Principles of Agroecology</i>		
Tue. Jan 22	Plants – Photosynthesis	GL ch3	
Thurs. Jan 24	Plants – Nutrients Light - Quality, Day Length,	GL ch4	
Tue. Jan 29	Finish Light , introduce: Soil	GL ch8, SS1	
Thurs. Jan 31	Soil - Structure, Chemistry, Intro to Nutrient Cycling		A#1 assigned
Tue. Feb 5	Soil – Composting	RD ch 3	
Thurs. Feb 7	Soil – Nutrient Cycling, Soil Water	GL ch9	A#1 due
Tue. Feb 12	Weather – Temperature	GL ch5	
Thurs. Feb 14	Weather – Wind and Precipitation	GL ch6-7	
Tue. Feb 19	In-class assignment (#2)		A#2 assigned
	<i>Agroecosystem Interactions and Structure</i>		
Thurs. Feb 21	Biotic Factors – Organism-Organism Interactions	GL ch11	A#2 due
Tue. Feb 26	Introduce Debate Project and Lit. Research Methods		
Thurs. Feb 28	Biotic Factors – Allelopathy	TBD	
Tue. March 5	Biotic Factors – Fungi	TBD	
Thurs. March 7	Debate Project Work Day		
Tue. March 12	Populations, Dispersal, and Niches	GL ch13	
Thurs. March 14	Species-Level Interactions	GL ch15	A#3 assigned
Tue. March 19	Integrated Pest Management	TBD	
Thurs. March 21	Integrated Pest Management cont.	TBD	A#3 due
	<i>Management, Application, and Practical Agroecology</i>		
Tue. March 26	*** Spring Break – No Class ***		
Thurs. March 28	*** Spring Break – No Class ***		
Tue. April 2	In-Class Debates		
Thurs. April 4	In-Class Debates		
Tue. April 9	In-Class Debates		
Thurs. April 11	In-Class Debates		
Tue. April 16	Genetics and Plant Breeding	GL ch14, TBD	
Thurs. April 18	Urban Agroecology and Brownfields	TBD	
Tues. April 23	Sustainable Rangeland Management	TBD	
Thurs. April 25	TBD		
Thurs. May 2	Final Exam 1:10-3:10		

GL = Gliessman text

SS = Soil Science Simplified

RD = Rodale Book of Composting