EDCI 537
Contemporary Issues in Science Education: The 3 Ds of NGSS

Instructor


Course Goals

The goal of this course is to survey the three dimensions of the Next Generation Science Standards: science & engineering practices, crosscutting concepts and disciplinary core ideas. Each dimension will be examined with emphasis on the interconnectness of the dimensions.

The Textbook


Each week specific reading assignments will be assigned. You are not expected to remember everything you read, but should still familiarize yourself with the material. These reading assignments should help you build a framework for your professional development. All assignments to be graded will be "open book" assignments.

Assignments

Units of study will include, but are not limited to, the following:
• Science and Engineering Practices
• The progression of the practices
• The crosscutting concepts
• The progression of the crosscutting concepts
• The disciplinary core ideas of Earth Space Science, Life Science, Physical Science and Engineering Technology Science
• 3 D assessment strategies

Weekly assignments around the topics may include, but are not limited to, the following:
• Reflections of the readings
• Examples of classroom implementation of the dimensions
• Comparison of current practice and steps needed to become more 3 D
• Creation of 3 D assessments

Grading

Assignments will scored on the basis of the writing rubric, found on the Help Pages. These are worth 100 points each, 50% content/50% writing.
Remember, this is a graduate level course and the writing must be graduate level quality. Extensive guidance is provided on the Writing Expectations of the Help Pages. Please review these before submitting your written assignments.

Course Grading:
A (94-100%)
A- (90-93%)
B+ (87-89%)
B (84-86%)
B- (80-83%)
C+ (77-79%)
C (74-76%)
C- (70-73%)
D+ (67-69%)
D (64-66%)
D- (60-66%)
F (0-59%)

Submitting Assignments

When submitting assignments, please save your file as a Microsoft Word document. Nearly all files in the MSSE Program are created on Microsoft Word. I use the Track Changes feature of Word to provide feedback and editing of your papers. Be sure to have Track Changes turned on in your Word application. Also, be sure to submit a "clean" copy file each time you submit. Assignments will be returned to the Dropbox within one week after submission. If more time than that has transpired, be sure to check with John about the status of your assignment(s).

Re-doing Assignments
You are welcome to re-do an assignment if you did not receive a score acceptable to you. You must re-submit the assignment in its entirety, having made the appropriate corrections or additions. Leave the original submission intact and then ADD your corrections in bold or in color. If you are using Microsoft Word, make the corrections in a type and/or font other than you used for the original assignment. That makes it easy to see the exact changes you made. It is assumed that the revised work will be of "exemplary" quality and your score will be changed to reflect your extra effort and work. Resubmissions will be awarded a maximum of 8.8/10 points and will be accepted up to the due date for the NEXT major assignment. You may only complete re-dos on the first three assignments. After that the option to resubmit assignments is not available.

Alternative Assignments

I am very open to having you submit assignments in an alternative fashion. This can include, but is not limited to, a presentation, a podcast or other means. See the Alternative Assignment link on the Help Pages.
Maintaining Intellectual Integrity (Plagiarism)

Paraphrasing or quoting another’s work without citing the source is a form of academic misconduct. Even inadvertent or unintentional misuse or appropriation of another's work (such as relying heavily on source material that is not expressly acknowledged) is considered plagiarism. All sources of information that are not your original thoughts need to be cited. This includes, but is not limited to, journal articles, textbooks and online resources. Adapted from MSU Syllabus language page: [http://www.montana.edu/teachlearn/TLResources/SyllabusLanguage.html](http://www.montana.edu/teachlearn/TLResources/SyllabusLanguage.html)

The Dropbox of D2L has a plagiarism checking feature attached to it called Turnitin. It will be activated for all submitted assignments.

Discussion Seminar Participation

Each week, you must participate in the general discussion. The discussion assessment will be based on the self-assessment reflection rubric which each student will submit at the end of each week to the Dropbox. If you are assigned Discussion Leader for the week, please follow the Discussion Leader Guidelines and submit the Discussion Leader Rubric.

Late Work

Assignments are due by midnight, Montana time, on the date posted. Submissions received AFTER that time will receive a late penalty of 10%. However, if you know you are going to be late with an assignment, please let JOHN know and you will be exempt from the late penalty as long as you have a compelling reason for the lateness and you provide a reasonable, timely due date. A phone message on Sunday night informing John of an internet connection problem and that you hope to be able to submit by noon on Tuesday is an acceptable reason to receive an exemption from the late penalty. The instructor realizes that we are all busy and situations will arise that are beyond our control. The request is that you be responsible with both communication and completion of the required work.

Grades will be posted on D2L. I'll let you know when the most recent grades have been posted.

When You are Absent from the Course

I know that some of you are planning to be gone for some portion of the course (me included). In order to allow you to plan and prepare ahead of time, the following are the requirements for those who will not be able to participate "in person" for any week of the course:
• Complete the weekly assignment as given. Let me know your anticipated due date to assist me in planning.

• Since you will not be participating in the Weekly Discussion, your assignment will be to summarize the discussions of one of the discussion groups AFTER you return from being away. The summary should be a narrative paper that includes additional research on the discussion topic. At least 2 additional sources must be used, cited and incorporated in your summary. The Discussion Summary should be about 2-3 pages in length.

• Please do NOT mix and match this assignment with the regular assignments. In other words, you must choose to do either the regular assignment or the "absent" assignment.

STUDENT CONDUCT:

Montana State University expects all students to conduct themselves as honest, responsible and law-abiding members of the academic community and to respect the rights of other students, members of the faculty and staff and the public to use, enjoy and participate in the University programs and facilities. For additional information reference see

www2.montana.edu/policy/student_conduct/student_conduct-code_2008-2009.htm

Collaboration:

University policy states that, unless otherwise specified, students may not collaborate on graded material. Any exceptions to this policy will be stated explicitly for individual assignments. If you have any questions about the limits of collaboration, you are expected to ask for clarification.

Academic Misconduct:

Section 420 of the Student Conduct Code describes academic misconduct as including but not limited to plagiarism, cheating, multiple submissions, or facilitating others’ misconduct. Possible sanctions for academic misconduct range from an oral reprimand to expulsion from the university.

Academic Expectations:

Section 310.00 in the MSU Conduct Guidelines states that students must:

A. be prompt and regular in attending classes;
B. be well prepared for classes;
C. submit required assignments in a timely manner;
D. take exams when scheduled;
E. act in a respectful manner toward other students and the instructor and in a way that does not detract from the learning experience; and

F. make and keep appointments when necessary to meet with the instructor.

In addition to the above items, students are expected to meet any additional course and behavioral standards as defined by the instructor.