

Communicating Science ~ Fall Semester 2014

Course Syllabus

Instructor: Joan Chadde, Education Program Coordinator
Center for Science, Mathematics & Environmental Education
115 Great Lakes Research Center
Phone: 487-3341 Email: jchadde@mtu.edu
Office hours: by appointment

Prerequisites: Open to all majors & class levels

Class Location: 104 Great Lakes Research Center (GLRC) and at schools in Houghton, Baraga, Ontonagon and Gogebic Counties

Course Objectives

This course will prepare students for making both classroom and community presentations as professionals in the work place. Students will make presentations in K-8 classrooms at evening Family Science Nights conducted at area schools for elementary students and their families.

Classroom lectures will highlight the rationale for interacting with schools and communities as a professional, development of age-appropriate lessons, presentation skills, effective teaching techniques, learning styles, classroom management, and demonstrate hands-on learning techniques. Students will have access to the Center's educational resources and activity guides, and presentation supplies will be provided.

Course Credit

ED 3510 is a 2 credit course.

Follow-up course sequence: Students can take ED 3511 (one credit) for a maximum of two times. Each term that ED 3511 is taken, students are required to develop two new lesson plans and deliver them at 5-6 family science nights. They do not repeat the first two assignments in ED3510.

Meeting Dates/Times:

ED 3510 will meet on Tuesdays from 7-9 pm on Sept. 9, 16, 23, 30. No class on Oct. 7. Other Tuesdays, we will conduct Family Science & Engineering Nights at schools and other venues:

- 1) Students attend one family science night as a presentation assistant (Sept. 18, optional), and present at 5-6 Family Science & Engineering Night events that are typically held from 6:00-7:30 PM at schools in Houghton, Baraga, Gogebic, and/or Ontonagon Counties. **Transportation to the school (in an MTU van), and dinner are provided for presenters (and their assistants) for each event. **For most Family Science Nights, students should expect to be off-campus from approximately 4:30-9 pm. A few science nights may require up to 2 hours travel time each way.** Family Science Night dates, times, and locations are in the course schedule.
- 2) Students in ED 3511 (1 credit) are required to develop two new lesson plans. Students enrolled in ED 3511 **only attend class to practice their presentations and the last class.**

ED 3510 Course Requirements (300 points)

Class Attendance (20 points)

Assignment #1: Read *three* National Science Teachers Association position statements on elementary science education, parental involvement, and informal science. Write a one-page reflection (single space) describing whether your K-8 science education incorporated many of the recommendations made in these 3 position statements. How did your experiences during elementary school, contribute to your attitude, interest, and understanding of science today? (10 points)

Assignment #2: Students identify activities to present to each of the following age groups: K-2, 3-4, and 5-6 during a 40-minute family science night. Three ***different*** sources (activity guides, internet, Science & Children journal, faculty, etc.) should be consulted. The activity selected for each grade grouping should be attached (unless taken from a book in the Center office) and the complete reference for the source of each activity listed on the form provided. (10 points)

Assignment #3: Select an existing 40-minute family science lesson plan (see notebooks of past lessons) to present at 3 science nights. (20 points)

Assignment #4: Present at 6 Family Science Nights (20 points/presentation x 6 = 120 points)

Assignment #5: Prepare a one-page self-critique of your presentation following ***each*** Science Night. (10 points/presentation x 6 = 60 points)

Assignment #6: Prepare a NEW 40-minute lesson plan to present. (40 points)

Assignment #7: Prepare one-page reflection that discusses "how this presentation/teaching experience will contribute to my academic and professional career." (20 points)