Course Number: SED 568
Credits: 3, taught online through eCampus on BlackBoard
Instructor: Dr. Emily H. van Zee
Email: Emily.vanZee@science.oregonstate.edu
Office: 267 Weniger Hall, OSU, Corvallis, OR 97331
Telephone: 541 737 1880
Office hours: By appointment

Syllabus effective for Fall 2010, Summer 2011

Description: Enhancing Literacy Learning in Science and Mathematics Contexts

Examining ways of enhancing literacy learning will include analyzing research on learning to speak clearly, listen closely, write coherently, read with comprehension, and make and critique media resources competently in science and mathematics contexts. Settings include K12 classrooms and free-choice learning environments such as zoos, museums and science camps. The course is an elective for participants in the Master’s in Science Education, Master’s in Mathematics Education or other teacher education programs.

Blackboard: This course will be delivered via Blackboard, your online learning community, where you will interact with your classmates and instructor. Within the course Blackboard site you will access the learning materials and syllabus; discuss issues; submit assignments; email other students and the instructor; participate in online activities; and display your projects. This course combines approximately 90 hours of instruction, online activities, and assignments for 3 credits.

To preview how an online course works, visit the Ecampus Course Demo. For technical assistance, Blackboard and otherwise, see http://ecampus.oregonstate.edu/services/technical-help.htm.

Special Opportunity for Oregon Teachers:
Oregon Prism Program:

You may be eligible for partial tuition reimbursement through the Oregon Prism program. To qualify, you need to be employed in an Oregon K-12 school (public or private, full or part-time). PrISM partner Lewis & Clark College is administering the tuition assistance program on behalf
of all PrISM students. When available, the tuition reimbursement amount is 60% of tuition/fees if you are employed by a non-high-need school and 80% if you are employed by a high-need school. Check this link to the Prism website: http://www.prismoregon.org/. If you qualify and would like to participate, you need to fill out a PRISM application form and tuition assistance form online. Please also email Teresa Wolfe at wolfete@science.oregonstate.edu. She will need your name and course title in order to notify eCampus to make adjustments to your tuition rate. You must email Teresa by Friday of the first week of school for the tuition adjustment.

Tentative Schedule for Fall 2010:

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<th>Unit</th>
<th>Dates</th>
<th>Focus</th>
<th>Key Questions</th>
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| 1    | September 27-October 2 | What is the definition of literacy learning? | ▪ How did you interpret the phrase *literacy learning* when you chose to register for this course?  
▪ How has the phrase *literacy learning* been implied in the research literature in science and mathematics contexts?  
▪ How would you choose to define the phrase *literacy learning* to use in your own setting? |
| 2    | October 4-8     | What are some productive ways of speaking and listening during discussions? | ▪ What are some findings about productive *ways of speaking and listening* in science and mathematics contexts?  
▪ What research techniques have been used to study productive *ways of speaking and listening* in these contexts?  
▪ How might you study productive *ways of speaking and listening* in science and mathematics contexts in your own setting? |
| 3    | October 11-16   | How are oral arguments constructed?        | ▪ What are some findings about *oral argumentation* in science and mathematics contexts?  
▪ What research techniques have been used to study *oral argumentation* in these contexts?  
▪ How might you study *oral argumentation* in science and mathematics contexts in your own setting? |
| 4    | October 18-23   | How are written arguments constructed?     | ▪ What are some findings about *the writing of arguments* in science and mathematics contexts?  
▪ What research techniques have been used to study the *writing of arguments* in these contexts?  
▪ How might you study *the writing of* |
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| 5    | October 25-30 | How does writing enhance science and mathematics learning?           | • What are some findings about *writing* in science and mathematics contexts?  
• What research techniques have been used to study *writing* in these contexts?  
• How might you study *writing* in science and mathematics contexts in your own setting? |
| 6    | November 1-6 | How does reading enhance science and mathematics learning?           | • What are some findings about *reading comprehension* in science and mathematics contexts?  
• What research techniques have been used to study *reading comprehension* in these contexts?  
• How might you study *reading comprehension* in science and mathematics contexts in your own setting? |
| 7    | November 8-13 | How do science and mathematics learners interact with texts?         | • What are some findings about *reading* in science and mathematics contexts?  
• What research techniques have been used to study *reading* in these contexts?  
• How might you study *reading* in science and mathematics contexts in your own setting? |
| 8    | November 15-20 | How does critiquing media resources enhance science and mathematics learning? | • What are some findings about the impact of *critiquing media resources* in science and mathematics contexts?  
• What research techniques have been used to study the impact of *critiquing media resources* in these contexts?  
• How might you study the impact of *critiquing media resources* in science and mathematics contexts in your own setting? |
| 9    | November 22-27 | How does creating media resources enhance science and mathematics learning? | • What are some findings about the impact of *creating media resources* in science and mathematics contexts?  
• What research techniques have been used to study the impact of *creating media resources* in these contexts?  
• How might you study the impact of *creating media resources* in science and mathematics contexts in your own setting? |
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<th>November 29-December 4</th>
<th>What is the nature of professional development emphasizing literacy learning in science and mathematics contexts?</th>
<th>What are some findings about providing professional development that emphasizes literacy learning in science and mathematics contexts? What research techniques have been used to study professional development emphasizing literacy learning in these contexts? How might you provide professional development emphasizing literacy learning in science and mathematics contexts in your own setting?</th>
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<td>10</td>
<td>Final Portfolio</td>
<td>Submit final portfolio for grading</td>
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**Student Learning Outcomes:**

Students will learn to:

1. Define literacy learning as used in the research literature in science and mathematics contexts and as appropriate in the participant’s setting

2. Analyze and compare examples of enhancing oral literacy in science and mathematics contexts as documented in the research literature and as typically occur in the participant’s setting

3. Analyze and compare examples of enhancing writing in science and mathematics contexts as documented in the research literature and as typically occur in the participant’s setting

4. Analyze and compare examples of enhancing reading as documented in the research literature and as typically occur in the participant’s setting

5. Analyze and compare examples of enhancing media literacy in science and mathematics contexts as documented in the research literature and as typically occur in the participant’s setting

6. Design a plan for enhancing and documenting literacy learning in science and mathematics contexts in the participant’s setting
Assignments

Unit 1 - Readings/Discussions: Introduce yourself to our learning community. State your initial interpretation of the phrase *literacy learning* when you chose to register for this course. Browse the readings and comment upon ways *literacy learning* has been studied in the research literature in science and mathematics contexts. Participate in online discussion of literacy learning. Construct a definition of *literacy learning* to use in your own setting. Read and comment upon your colleagues’ definitions of literacy learning.

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Unit 2 - Readings/Discussions/Portfolio Plan: Browse the readings and summarize some findings from at least one study in the research literature about enhancing *ways of speaking and listening* in science/mathematics contexts. Describe research techniques used in these studies. Design an inquiry into *ways to enhance ways of speaking and listening* in science and mathematics contexts in your setting. Provide feedback to your partner. Participate in online discussion of ways of speaking and listening in science/mathematics contexts.

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Unit 3 – Readings/Discussions/Portfolio Plan: Browse the readings and summarize some findings from at least one study in the research literature about *oral argumentation* in science/mathematics contexts. Describe research techniques used in studies of *oral argumentation* in these contexts. Design an inquiry ways to enhance *oral argumentation* in your setting. Provide feedback to your partner. Participate in online discussion of oral argumentation in science/mathematics contexts.

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Unit 4 - Readings/Discussions/Portfolio Plan: Browse the readings and summarize some findings from at least one study in the research literature about enhancing *written argumentation* in science/mathematics contexts. Describe research techniques used in studies of written argumentation in these contexts. Design an inquiry into ways to enhance *written argumentation* in science and mathematics contexts in your setting. Provide feedback to your partner. Participate in online discussion of written argumentation in science/mathematics contexts.

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Unit 5 – Readings/Discussions/Portfolio Plan: Browse the readings and summarize some findings in at least one study in the research literature about many forms of *writing* opportunities in science/mathematics contexts. Describe research techniques used in studies of writing in these contexts. Design an inquiry into ways to enhance *writing* in science and mathematics contexts in your setting. Provide feedback to your partner. Participate in online discussion of writing opportunities in science/mathematics contexts.

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Unit 6 – Readings/Discussions/Portfolio Plan: Browse the readings and summarize some findings in at least one study in the research literature about reading comprehension in science/mathematics contexts. Describe research techniques used in studies of reading comprehension in these contexts. Design an inquiry into ways to enhance reading comprehension in science and mathematics contexts in your setting. Provide feedback to your partner. Participate in online discussion of reading comprehension in science/mathematics contexts.

Unit 7 – Readings/Discussions/Portfolio Plan: Browse the readings and summarize some findings in at least one study in the research literature about many forms of reading in science/mathematics contexts. Describe research techniques used in studies of reading in these contexts. Design an inquiry into ways to enhance many forms of reading in science/mathematics contexts in your setting. Provide feedback to your partner. Participate in online discussion of reading in science/mathematics contexts.

Unit 8 – Readings/Discussions/Portfolio Plan: Browse the readings and summarize some findings in at least one study in the research literature about the impact of critiquing media resources in science/mathematics contexts. Describe research techniques used in studies of critiquing media resources in these contexts. Design an inquiry into ways to enhance the impact of critiquing media resources in science/mathematics contexts in your setting. Provide feedback to your partner. Participate in online discussion of the impact of critiquing media resources in science/mathematics contexts.

Unit 9 – Readings/Discussions/Portfolio Plan: Browse the readings and summarize some findings in at least one study in the research literature about the impact of students creating media resources in science/mathematics contexts. Describe research techniques used in studies of creating media resources in these contexts. Design an inquiry into ways to enhance the impact of creating media resources in science/mathematics contexts in your setting. Provide feedback to your partner. Participate in online discussion of the impact of creating media resources in science/mathematics contexts.

Unit 10 – Readings/Discussions/Portfolio Plan: Browse the readings and summarize some findings in at least one study in the research literature about professional development emphasizing literacy learning in science/mathematics contexts. Describe research techniques used in such studies in these contexts. Design a way to provide professional development emphasizing literacy learning in your setting. Provide feedback to your partner. Participate in online discussion of professional development emphasizing literacy learning in science/mathematics contexts.

Final portfolio and reflection

Total
Grading Scale

Note to students: Keep a copy of everything you submit. Letter grades for assignments in the course will be determined using the following scale:

94% <= A < 100%  
84% <= B < 88%  
74% <= C < 78%

90% <= A- < 94%  
80% <= B- < 84%  
70% <= C- < 74%

88% <= B+ < 90%  
78% <= C+ < 80%  
60% <= D < 70%

All assignments have due dates. Since this course is an online course, the times for submission on those due dates is no later than midnight Pacific time of the identified date. If you need to request an extension for an assignment, a request must be made to the instructor by email prior to the due date. Late points may be deducted at the instructor's discretion.

A letter grade (A, A-, B+, B, B-, C+, C, C-, D+, D, D-, F) is awarded if the student completes all work, including the final project.

Extensions: Students may request an extension or an incomplete because of illness or other extenuating circumstances-if they have been doing acceptable work prior to the request. The instructor will define the requirements and timelines to complete the work. Please Note: Instructors are not obligated to give extensions.

Withdrawal: The OSU policy for student withdrawal requests is governed by the OSU policies that you find at http://ecampus.oregonstate.edu/services/policies-and-regulations.htm

Learning resources:
No textbooks are required for this course. All suggested readings will be available online through the OSU library. A list of additional resources will be available on BlackBoard under course documents. Additional resources also include:

Mathematics Standards
National Council of Teachers of Mathematics (). Curriculum focal points for pre-kindergarten through grade 8 mathematics:
Oregon mathematics standards most current presentation of revised mathematics high school standards http://www.ode.state.or.us/news/announcements/announcement.aspx?=4286
Oregon Mathematics Adopted K-8 Standards http://www.ode.state.or.us/search/page/?=1148

Science Standards


Oregon State Department of Education revised science standards. [http://www.ode.state.or.us/search/page/?=2560](http://www.ode.state.or.us/search/page/?=2560)

**Technology Standards**


**Electronic Resources**

**Oregon State University Library**

To access a particular article, click on e-journals for access to electronic journals. Type name of journal in search window, click, click on source for journal, click on volume number, click on issue number, scroll down list of articles until find the title. To download, click on pdf.

To search for resources relevant to a topic of interest or by a particular author, click on databases and select “education” from menu. From the large array of education databases, a good place to start is ERIC (Educational Resource Information Center). Enter author’s name to find papers by an individual or enter one of an array of descriptors.


Enter topic in search window. Click on scholar preferences to enter information about OSU’s library in order for URL’s to be notated with availability through the OSU library.

**TSPC/PTCE Expectations:**

**Conceptual Framework, Knowledge Base, and National and State Guidelines**
The Professional Teacher and Counselor Education (PTCE) unit Conceptual Framework is based on four foundational or core values that are listed below. To find out more about how the knowledge base relates to the National Council for Accreditation of Teacher Education (NCATE) guidelines, review the Conceptual Framework at the website: http://oregonstate.edu/education/accreditation/

1. Ethics and Professionalism
2. Reflective Practitioner
3. Lifelong Learners
4. Diversity and Equity

With respect to national standards, this course includes application of NCATE content knowledge, professional and pedagogical knowledge and skills, dispositions, and student learning. NCATE Unit Standards: http://www.ncate.org/public/unitStandardsRubrics.asp?ch=4

Oregon TSPC Standards Addressed

The Oregon TSPC Standards embedded in this course include the following:

- Standard 1: Plan Instruction that supports student progress in learning and is appropriate for the developmental level.
- Standard 2: Establish a classroom climate conducive to learning.
- Standard 3: Engage students in planned learning activities.
- Standard 5: Exhibits professional behaviors, ethics, and values.

Student Support and Expectations:

Statement of Expectations for Student Conduct
http://oregonstate.edu/admin/stucon/achon.htm

Academic Integrity — Students are expected to comply with all regulations pertaining to academic honesty, defined as: An intentional act of deception in which a student seeks to claim credit for the work or effort of another person or uses unauthorized materials or fabricated information in any academic work. For further information, contact the office of Student Conduct and Community Standards at 541-737-3656.

Conduct in this online classroom — Students are expected to conduct themselves in the course (e.g., on discussion boards, email postings) in compliance with the university's regulations regarding civility. Students will be expected to treat all others with the same respect as they would want afforded themselves. Disrespectful behavior to others (such as harassing behavior, personal insults, inappropriate language) or disruptive behaviors in the course (such as persistent and unreasonable demands for time and attention both in and out of the classroom) is
unacceptable and can result in sanctions as defined by Oregon Administrative Rules Division 15 Student Conduct Code.

Course Completion Policy
A student who registers for a Distance Learning course is assigned a "start date" and an "end date." It is the student's responsibility to note due dates for assignments and to keep up with the course work. If a student falls behind, she/he must contact the instructor and request an extension of her/his end date in order to complete the course. It is the prerogative of the instructor to decide whether or not to grant the request.

Statement Regarding Students with Disabilities
Accommodations are collaborative efforts between students, faculty and Disability Access Services (DAS). Students with accommodations approved through DAS are responsible for contacting the faculty member in charge of the course prior to or during the first week of the term to discuss accommodations. Students who believe they are eligible for accommodations but who have not yet obtained approval through DAS should contact DAS immediately at 737-4098.

http://oregonstate.edu/dept/budgets/genupol/gupdissu.htm

Plagiarism and Expectations for Student Conduct
You are expected to submit your own work in all your assignments, postings to the discussion board, and other communications, and to clearly give credit to the work of others when you use it. Academic dishonesty will result in a grade of “F.” Any student whose work indicates a violation of the OSU Academic Misconduct Policy (cheating, plagiarism) can expect penalties as described in the Dean of Students’ webpage:

http://oregonstate.edu/admin/stucon/achon.htm

The following link provides information on writing in general and specific guidance on proper citation techniques.

http://cwl.oregonstate.edu/

Civility Policy
The Office of Student Conduct & Community Standards supports the mission of the university by providing programs and services designed to meet the educational and developmental needs of students in relation to community standards, civility, accountability, diversity, respect and truth. For details see:

http://ecampus.oregonstate.edu/orientation/success/conduct.htm

Guidelines for a Productive and Effective Online Classroom
• The discussion board is your space to interact with your colleagues related to current topics or responses to your colleague’s statements. It is expected that each student will participate in a mature and respectful fashion.
• Participate actively in the discussions, having completed the readings and thought about the issues.
• Pay close attention to what your classmates write in their online comments. Ask clarifying questions, when appropriate. These questions are meant to probe and shed new light, not to minimize or devalue comments.
• Think through and reread your comments before you post them.
• Assume the best of others in the class and expect the best from them.
• Value the diversity of the class. Recognize and value the experiences, abilities, and knowledge each person brings to class.
• Disagree with ideas, but do not make personal attacks. Do not demean or embarrass others. Do not make sexist, racist, homophobic, or victim-blaming comments at all.
• Be open to be challenged or confronted on your ideas or prejudices.

Financial Aid Policy
If you are receiving financial aid of any kind, it is your responsibility to protect your eligibility to receive financial aid by meeting the requirements of this class.

Change of Contact Information
Please use the student online services at http://oregonstate.edu/students/onlineservices if you have a change in any of your contact information, including name, phone number, and address.

♦ Technical Assistance — If you experience computer difficulties, need help downloading a browser or plug-in, assistance logging into the course, or if you experience any errors or problems while in your online course, contact the OSU Help Desk for assistance. You can call (541) 737-3474, email osuhelpdesk@oregonstate.edu or visit the OSU Computer Helpdesk online.

♣ Tutoring —

NetTutor is a leading provider of online tutoring and learner support services fully staffed by experienced, trained and monitored tutors. Students connect to live tutors from any computer that has Internet access. NetTutor provides a virtual whiteboard that allows tutors and students to work on problems in a real time environment. They also have an online writing lab where tutors critique and return essays within 24 to 48 hours.

♣ OSU Student Evaluation of Teaching — Course evaluation results are extremely important and are used to help improve this course and the learning experience of future students. Results from the 19 multiple choice questions are tabulated anonymously and go directly to instructors and department heads. Student comments on the open-ended questions are compiled and confidentially forwarded to each instructor, per OSU procedures. The online Student Evaluation of Teaching form will be available toward the end of each term, and you will be sent instructions by Ecampus. You will login to “Student Online Services” to respond to the online questionnaire. The results on the form are anonymous and are not tabulated until after grades are posted.