MSSE 591 Integrating Literature into the Science Classroom
Introduction, Schedule and Grading
January 11 – April 23, 2017

COURSE DESCRIPTION:
Welcome to “Integrating Literature into the Science Classroom.” This course is designed for elementary, middle and high school teachers. The course provides an effective way to integrate instructional strategies for teachers. Students will share cross-level instruction and constructive ideas with each other. The goal of this course is to engage and support the integration of reading and science instruction. This fourteen-week course is intended for teachers enrolled in the Masters of Science in Science Education degree program and other teachers with a minimum of two years teaching experience.

COURSE GOALS & LEARNING OUTCOMES:
Incorporation of reading into the science classroom
Creation of lessons and units that align with the principles of NGSS and promote literacy
Development of interdisciplinary studies pedagogy
Understanding of ecological concepts and content

STUDENT EVALUATION:
The two objectives for each assignment are for the student to demonstrate an understanding of appropriate science content as well as science pedagogy

| Science Content | 5 | Complete and accurate science information, including proper terminology. Conclusions are supported, data and evidence is thoroughly explained |
| Science Pedagogy | 4 | The student uses basic scientific knowledge and terminology to formulate a coherent response that is scientifically accurate. Conclusions are stated, but rationale may not be fully developed. |
| Science Pedagogy | 3 | The student describes practices in general terms, but lacks reflection on how learning occurs. The student mentions some of the best practices, but only partially develops these ideas. |
| Science Pedagogy | 2 | The student describes practices that are activity-based and lack purposeful design towards science learning outcomes. Lesson is not age appropriate. |
| Science Pedagogy | 1 | The student states generalized teaching practices that lack specificity and/or do not make use of best practices. |
| Science Pedagogy | | Science information is inaccurate. Some data and/or evidence is not addressed. Conclusions are unclear. |

Student demonstrates a complete understanding of the nature of science. Age-appropriate lessons are designed using accepted best practices. Creativity is evident.

Student creates describes teaching practices that are age appropriate and demonstrate best practices.

Student states generalized teaching practices that lack specificity and/or do not make use of best practices.
Required Readings:

Look to the North - A Wolf Pup Diary, Jean Craighead George and Lucia Washburn, 1998, Scholastic, ISBN 0590689088
Indian Creek Chronicles, Pete Fromm, 2003, Picador, ISBN 0312422725
Fishes, Melissa Stewart, 2000, Children's Press, ISBN 0516259555

The sixth required reading is a book of personal interest. The book must have a science-related theme.

Week 1:
Please introduce yourself to the rest of the class by going to the Week 1 DISCUSSION Area and click on BIO/INTRODUCTION. You will see my Bio/Introduction as an example. Feel free to attach a picture of yourself. Please post your introduction by Sunday, midnight. (5 Points)

Read the course description and course schedule thoroughly.

Purchase the required literature books for the course.

Week 2:
Week 2 Discussion Topic: 1.) Research and discuss with your discussion group the Native American views of the gray wolf. Submit a response to the Week 2 Discussion Topic by Wednesday. Respond to others. (10 Points)
Reading Component: Using credible websites, research, read and respond to articles discussing the benefits of integrating literature into the science classroom. Please submit the assignment to me using the D2L dropbox by Sunday, midnight. (10 Points)

Week 3:
Week 3 Discussion Topic: Research and discuss with your assigned discussion group various common wolf folktales, myths and legends. Where did these folktales, myths and legends originate. How do these folktales, myths and legends impact wolf attitudes. Please respond to others. Submit a response to the Week 3 Discussion Topic by Wednesday. Respond to others. (10 Points)

Begin reading Never Cry Wolf by Farley Mowat.

Begin reading the Look to the North - A Wolf Pup Diary by Jean Craighead George.

Science Component: Read the articles provided on the biology of the western gray wolf located in the Week 3 Assignment Area. Then, use the internet and other reliable resources to research and briefly describe how Russia, the United States and Canada currently manage wolves. Please submit the assignment to me using the D2L dropbox by Sunday, midnight. (10 Points)
Week 4:

Week 4 Discussion Topic: In your discussion groups share ideas of how you could use the readings Never Cry Wolf and Look to the North - A Wolf Pup Diary in your classroom. Submit a response to the Week 4 Discussion Topic by Wednesday. Respond to others. (10 Points)

Complete the first two readings, Never Cry Wolf and Look to the North - A Wolf Pup Diary.

Reading Strategy Component: “Making Connections” After completing the two readings, Never Cry Wolf and Look to the North - A Wolf Pup Diary, please read the article, entitled “Making Connections.” Discuss the key rationales for the reading strategy, “Making Connections.” Write two questions that can be used to facilitate student connections with Text to Self, Text to Text, and Text to World. After you have completed the questions, please write a thorough response to each question. You should have six responses. Please submit the assignment to me using the D2L dropbox by Sunday, midnight. (10 Points)

Week 5:

Weekly Discussion Topic: In your discussion groups, research and discuss how the former Soviet Union may have used the book Never Cry Wolf to their advantage. List and discuss other examples of science-based literature used to sway public opinion. Are these examples able to be incorporated into your teaching? Explain. Submit a response to the Week 5 Discussion Topic by Wednesday. Respond to others. (10 Points)

Begin the third required reading, Georges Secret Key to the Universe, by Lucy and Stephen Hawking.

Reading Strategy Component: Begin to develop a plot line or story map for the reading of Georges Secret Key to the Universe. Refer to the Plot Lines and Story Map websites.

Week 6:

Weekly Discussion Topic: As you read Georges Secret Key to the Universe, confer with your discussion group and share ways in which you could incorporate social studies, math and art into your classroom. Submit a response to the Week 6 Discussion Topic by Wednesday. Respond to others. (10 Points)

Continue the plot line or story map for the reading of Georges Secret Key to the Universe.
**Week 7:**

**Weekly Discussion Topic:** In your discussion groups, refer to the "Bonus Material" at the end of *Georges Secret Key to the Universe* on page 300-308. What portions of the *Questions and Answers* and *Curriculum Guide* do you like? Discuss different ways you could implement the material into your classroom? Make certain you are discussing cross-level instruction that can be utilized for elementary, middle and high school instructors. Submit a response to the Week 7 Discussion Topic by Wednesday. Respond to others. **(10 points)**

Complete the reading *Georges Secret Key to the Universe*.

Complete and submit the plot line or story map for the reading of *Georges Secret Key to the Universe*. Please submit the assignment to me using the D2L dropbox by Sunday, midnight. **(10 points)**

**Week 8: Spring Break**

There will be no class this week. However, if your school has a different spring break, you are welcome to work this week and take off the week of your school’s spring break. Please notify me if you intend to work this week.

I will see everyone back online March 18. Enjoy your break!

**Week 9:**

**Weekly Discussion Topic:** In your discussion groups, discuss and briefly describe other pieces of literature you would consider integrating into your classroom or into your colleagues classroom. Please make certain you are discussing cross-level readings that can be utilized for elementary, middle and high school instructors. Submit a response to the Week 8 Discussion Topic by Wednesday. Respond to others. **(10 points)**

Begin the fourth required reading, *Indian Creek Chronicles*, by Pete Fromm

Begin the fifth reading *Fishes (True Book Animals)* by Melissa Stewart

**Reading Strategy Component:** This week our focus will be on journaling. Read the articles provided on “Implementing Journaling Science Classroom” located in the Week 7 Assignment Area. Read, reflect and respond to the scientific journaling articles. Discuss how you can implement scientific journaling in your classroom. Please submit the assignment to the D2L dropbox by Sunday, midnight. **(10 points)**

**Week 10:**
**Weekly Discussion Topic:** In your discussion groups, please identify character changes. Refer to the fourth required reading, *Indian Creek Chronicles*. Discuss how the main characters changed throughout the novel. Discuss how you have changed as a teacher to improve classroom instruction. Submit a response to the Week 10 Discussion Topic by Wednesday. Respond to others.

*(10 points)*

Complete the fourth and fifth readings *Indian Creek Chronicles* and *Fishes*.

**Reading Strategy:** Personal Journaling- Pete Fromm’s personal journal developed into a wonderful novel. Please write about a time in your life when you were at a loss for direction. If you could have followed you passion, describe how it might have changed you. Please submit the assignment to me using the D2L dropbox by Sunday, midnight.

*(10 points)*

**Week 11:**

**Weekly Discussion Topic:** In your discussion group, describe how you could incorporate *Indian Creek Chronicles* and *Fishes* into to your classroom. What were your overall feelings about the two books? After reading *Indian Creek Chronicles* and *Fishes*, what activities could you implement into your classroom? Suggest ideas your colleagues could use at the elementary, middle school and high school levels. What other books might you substitute for your grade level teaching? Submit a response to the Week 11 Discussion Topic by Wednesday. Respond to others.

*(10 points)*

**Science Component:** Fish Biologist Interview

After completing the books *Indian Creek Chronicles* and *Fishes* interview a regional, state or federal fishery biologist. You will find a list of questions that will help serve as a guideline for the interview. Please submit the assignment to me using the D2L dropbox by Sunday, midnight.

*(10 points)*

Begin the sixth and final required reading. Choose a book of interest that contains a science-related theme.

Begin to develop an action plan for your science classroom around one or more of the books you read in the course. Please include a list of common core state standards you will address in your action plan. (In week thirteen, you will submit your action plan and share the action plan with your peers.)

**Week 12:**

**Weekly Discussion Topic:** In your discussion group, please discuss potential problems you may encounter by integrating literature into the science classroom. How can you get around these roadblocks? Also, discuss with your peers your overall thoughts about the sixth book of choice.

*(10 points)*
**Reading Strategy:** "Making Literature Comparisons" - Compare any two pieces of literature you have read from the course. Some comparison examples include: characters, plot lines, text to text, environmental impacts, social and economic struggles, settings and habitat types. Please submit the assignment to me using the D2L dropbox by Sunday, midnight.  *(10 points)*

**Week 13:**
No Weekly Discussion Topic.

Please submit your action plan to the D2L Week 13 Discussion Topic Area by Sunday. You will be sharing your action plans with your peers. Additionally, please submit your action plan to the D2L dropbox by Sunday.  *(20 points)*

**Week 14:**
Please read your peers action plans.

**Course Grading:**
Grades will be determined by the total number of points earned on weekly discussions and weekly assignments. The following grading scale will be used:

- A (100-94%)
- A- (93-90%)
- B (89-84%)
- B- (83-80%)
- C (79-74%)
- C- (73-70%)
- D (69-64%)
- D- (63-60%)
- F (59-0%)

Week 1: Bio / Introduction 5 pts.
Week 2: Weekly Discussion Topic 10 pts. / Benefits of Integrating Literature 10 pts.
Week 3: Weekly Discussion Topic 10 pts. / Wolf Management Assignment 10 pts.
Week 4: Weekly Discussion Topic 10 pts. / Making Connections 15 pts.
Week 5: Weekly Discussion Topic 10 pts.
Week 6: Weekly Discussion Topic 10 pts.
Week 7: Weekly Discussion Topic 10 pts. / Plot Lines or Story Maps 10 pts.
Week 8: **Spring Break**
Week 9: Weekly Discussion Topic 10 pts. / Journaling Assignment 10 pts.
Week 10: Weekly Discussion Topic 10 pts. / Personal Journaling 10 pts.
Week 11: Weekly Discussion Topic 10 pts. / Fishery Biologist Interview 10 pts.
Week 12: Weekly Discussion Topic 10 pts. / Making Literature Comparisons 10 pts.
Week 13: Submit Action Plan (Final Project) 20 pts.

Week 14: Read your peers' Action Plans.

**Total Points = 210 points**

**Assignments:**
Details for all assignments are in the Weekly Assignments link on the Home Page. Please submit all weekly assignments to me using the D2L dropbox by Sunday of each week. You should expect to see a grade and comment for your completed assignment no later then Tuesday of the following week. Assignments can be completed in a word doc. or .html.

**Expectations for Weekly Discussions:**
Each week you will respond to a discussion topic. I will post the topic under the “Discussions area. Plan to post your discussion by Wednesday and then respond to your classmates’ comments toward the end of the week. Follow up responses are comments made responding to postings made by others. Do NOT post all of your responses in one day. We are attempting to build a learning community that requires participation and interaction from everyone. Furthermore, remember that part of your grade is determined by providing substantive responses to your fellow learners. If you wait until the last minute to post, your colleagues are left hanging. You can expect the instructor to read all postings.

I will keep track of the number and quality of your submissions. Pretend you're in a class, talking with your colleagues. Ask questions. Bring up new points.

You will be divided into discussion groups. You are required to submit only to your own group, but discussions will be open to everyone for reading and commenting. Feel free to bring ideas back to your own discussion group from another group.

**Substantive Comments**

Part of establishing a learning community is opening and facilitating multiple channels for the communication of ideas. The discussion forum provides a wonderful medium for ideas to be discussed. The more you and your classmates participate, the richer the class will be. A substantive comment is a comment that contains an idea relevant to the topic and facilitates others to express their relevant ideas.

**Communications**
Post all questions in the discussion area unless it is a private message intended only for the instructor or another learner. For private messages use the “Course Email” function. Post your initial posting using Compose a Message, then use the reply feature to participate in discussions so there is a “threaded” conversation. Be sure to set the arrow to the left of a posting to down so you see the entire thread. When replying to a message, type in a new subject that describes your response. Last, but not least, please preview and edit before posting. After clicking “Post” you will be taken back to the previous screen where you will click “Update listing.”

**Civility**

All students are expected to exercise self-discipline and respect for the rights of others at all times. Flaming (Posting personal attacks) and other disruptions that interfere with the business of the classroom or with an individual’s ability to learn will not be tolerated. Remember treat others as you wish to be treated. Also, remember that smart people speak about ideas not other people. This includes administrators and teachers you have worked with.