Division: Teacher Education    Program Area: Science Education

Course #: ELE 3500  Section #: 901  CRN#: 26482  Term/Year: Winter 2014

Course Title: Science Curriculum: Preprimary - 8

Course Credit: Three Semester Hours

Course Location: University Center, Building 3 Room 111
Map available: http://www.macomb.edu/About+Macomb/Maps+and+Locations/Center+Campus.htm

Days: Thursday    Time: 12:50 p.m. – 3:35 p.m.

Instructor: Mrs. Sandra Yarema

Mailbox: Main Campus: 281 COE, South Office Corridor, University Center Main Office: 102 UC-1

Office Hours: To be arranged by appointment

Office Phone #: Direct voice mail: 313/577-5754
University Center Main office: 586/263-6700 Leave detailed message

Email: ar3209@wayne.edu    Website: http://blackboard.wayne.edu/

Course Description:

Catalogue description: This course will address goals and significant areas of study in the elementary school science curriculum. The course will introduce teachers to resources including science activities, field trips, print and non-print materials.

Specifically, this course prepares pre-service teachers to select existing and/or develop original inquiry-based constructivist teaching models that promote student concept understanding and process skill development, as directed by our national and state science education standards. These curriculum models will demonstrate pre-service teachers’ knowledge of student learning and development, and incorporate the use of technology, multicultural and exceptional learner issues, authentic assessments, and the integration of subjects across the curriculum.

Course Outcomes:

1. To gain understanding of the nature of science so we may be prepared to teach science in a way that is consistent with the discipline.

2. To analyze the purposes of education, and of major science education initiatives.
3. To gain understanding of student learning and the appropriate science concepts to teach elementary and middle school students.

4. To analyze, select, and create inquiry-based teaching modules using the learning cycle: a model that is consistent with the nature of science, the purposes of science education, and how children learn.

5. To develop an understanding of science as an integrated discipline and be able to develop standards-based science lessons which are thematic and integrated with subjects in the elementary school curriculum.

6. To implement science teaching that incorporates knowledge of learner differences, multicultural issues, exceptional learners, technology, and authentic assessments.

7. To apply the Next Generation National Science Standards, Michigan State Benchmarks and GLCE’s in selecting and developing high quality teaching and learning experiences for elementary/middle school students.

8. To function as science teaching professionals by critically analyzing science education lessons and literature (research articles, practitioner articles, curricula, Internet sites), participating in professional organizations, and contributing to national, state or local school science education activities (science fairs and competitions, science museums).

**Required Text and Readings:**

1. **Required Textbook**


2. **Required Readings**

   **Handouts and Internet addresses** as distributed during class meetings and/or posted on the ELE 3500 Blackboard site.


   **Michigan State Science Grade Level Content Expectations**. Available at [http://mde.state.mi.us/](http://mde.state.mi.us/)

3. **Recommended Readings**


**Policies**

**Attendance:** Each class meeting is almost three hours long and a large amount of material is covered during this time. Thus, regular attendance is expected. Absences will be excused under certain circumstances such as illness or death in the family. You are responsible for providing the instructor with such evidence. Excused absences will be by notes from doctor or other relevant official. Absentees are responsible for: (1) getting any handouts passed out during the missed class, (2) any in-class announcements, (3) changes in syllabus, and (4) material discussed in class. There will be no make-up of activities missed. **Please arrive to class on time. Class announcements are given at the beginning of class, which you will miss if arriving late. Late arrivals are also disruptive to everyone in class.**

**Cancellations of Class & “Snow/No-Power” Policy** If, for any reason, WSU cancels class, or UNIV Center is closed, I will post an announcement in Blackboard and attempt to notify students through CAMPUS e-mail. If Campus is open, expect to attend class. (Campus Newsline: (313)577-5345 or www.wayne.edu) See above responsibilities of absentees.

**No Cell phone/text device use during class time:** please turn cell phone off/silent mode before entering class. Smart Phones/PDAs/Laptops must be off unless necessary for assigned class work; Printing available in Computer Lab. **Downloading from blackboard and printing should be done outside of class time.**

**Course Communication:** Class communication will utilize Blackboard and the class email list. Students **MUST be able to access the course Blackboard site** to retrieve important information about the course, as well as email messages. This syllabus will be posted on the Blackboard site, along with assignment details and other communications. Some assignments will include discussion board postings. The site may be entered through [http://blackboard.wayne.edu](http://blackboard.wayne.edu). WSU provides free email and Internet accounts for students. You are responsible for providing the instructor with a valid e-mail contact if you do not use the Campus IPO.

**Plagiarism** Plagiarism includes copying material (any more than 5 consecutive words) from outside texts or presenting outside information as if it were your own by not crediting authors through citations. It can be deliberate or unintended. **If you are in doubt about the use of a source, cite it.** Students caught plagiarizing information from other sources will receive a failing grade in the course. University policy states that students can be subject to multiple sanctions, from reprimand to expulsion as a consequence of academic dishonesty. **To enforce this policy, all outside references must be submitted with assignments.**
Attention Students with Disabilities: If you have a documented disability that requires accommodations, you will need to register with Student Disability Services for coordination of your academic accommodations. The Student Disability Services (SDS) office is located at 1600 David Adamany Undergraduate Library in the Student Academic Success Services department. SDS telephone number is 313-577-1851 or 313-577-3365 (TTY: telecommunication device for the deaf; phone for hearing impaired students only). Once you have your accommodations in place, SDS staff will be glad to meet with you privately during office hours to discuss your special needs. Student Disability Services’ mission is to assist the university in creating an accessible community where students with disabilities have an equal opportunity to fully participate in their educational experience at Wayne State University. See http://studentdisability.wayne.edu/.

Academic Success: The Academic Success Center in the Adamany Undergraduate Library provides tutoring by appointment at no cost as well as training in areas such as time management, study and testing skills. Contact Info: Tel. 313/577-3165 Web. http://www.success.wayne.edu/ Do visit the Success center if you begin having difficulty in any of the courses you are taking.

Religious Observance Policy: Because of the extraordinary variety of religious affiliations represented in the University student body and staff, the Wayne State University calendar makes no provision for religious holidays. It is University policy, however, to respect the faith and religious obligations of the individual. Students who find that their classes or examinations involve conflicts with their religious observances are expected to notify their instructors well in advance so that alternative arrangements may be worked out.

NOTE: Check Blackboard and WSU email regularly.

Grading Policies

Class Participation Students will be graded on class participation, which includes contributions to class discussion and activities, attendance, on-time arrival to class and remaining for the duration of class, timely completion of individual and group assignments, and other affective variables related to course work. The instructor will monitor student participation throughout the course. Each activity done during class will be part of your participation grade. Your final grade will be affected significantly if attendance in class is poor. The expectation is that you attend every class.

Final Grade The final grade is calculated from the various individual assignment grades, class participation, and response to readings. These categories will be weighted by value:

<table>
<thead>
<tr>
<th>Category</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Assignments</td>
<td>50%</td>
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<tr>
<td>Discussion Board</td>
<td>25%</td>
</tr>
<tr>
<td>Attendance &amp; Participation</td>
<td>25%</td>
</tr>
</tbody>
</table>

Points/percentages will be recorded in blackboard to help you keep track of your progress throughout the semester and may not reflect the value weighting. All assignments are important, therefore all grades are important. There is NO Final Exam in this course; however, ALL students will earn a participation grade for attempting the blackboard MTTC Practice test on the scheduled exam day (students with a science major are required to complete the MTTC Test Preparation Session, 10% of grade deducted if session missed).
**Regarding a Grade of Incomplete:** All students are expected to complete the course by the end of the semester. If during the semester, you feel that at that time, you cannot handle the amount of work required for this course, please drop the class.

A grade of incomplete “I” will be given only to a student who is doing well in the course and who, due to unforeseen circumstances such as a serious accident, is unable to complete all the course assignments. Under these circumstances, the student must make arrangements with the instructor, **before the last class meeting**, in order to fill out a “contract” in which the student’s responsibilities are stipulated and agreed upon. **A grade of incomplete will not be given to a student who at the time of the request is failing the course.** Incompletes will revert to a failing grade after one calendar year, there will be no extensions.

1. Students who do not complete course requirements, or do not withdraw appropriately (in timely ways), will receive a failing grade.
2. Students who withdraw within the scheduled dates of the term will receive one of these notations: -WP Withdrawal with a passing grade earned to date, -WF Withdrawal with a failing grade earned to date, -WN Withdrawal never attended, or no graded work to date
3. Students must submit their withdrawal request on-line through Pipeline. The instructor must approve the withdrawal request before it becomes final, and students should continue to attend class until they receive notification via email that the withdrawal has been approved.

**Note: Add/ Drop Policy:**
Students must add classes no later than the end of the first week of classes. This includes online classes. Students may continue to drop classes (with full tuition cancellation) through the first two weeks of the term. The last day to withdraw is the end of the 10th class meeting. This means the course withdrawal deadline is Saturday, March 22, 2014.

**General Note:** The College of Education Faculty members strive to implement assessment measures that reflect a variety of strategies in order to evaluate a students’ performance in a course. **For undergraduates C grades will be awarded for satisfactory work that satisfies all course requirements. B grades will be awarded for very good work and A grades will be reserved for outstanding performance. Please note that there is a distribution of grades from A – F within the College of Education and that plus and minus is recorded and distinguish distinct grade point averages.**

**Undergraduate Grades will be assigned as follows:**

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Grade</th>
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<tbody>
<tr>
<td>93-100 %</td>
<td>A</td>
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<tr>
<td>90-92 %</td>
<td>A-</td>
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<td>87-89%</td>
<td>B+</td>
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<td>83-86 %</td>
<td>B</td>
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<td>80-82 %</td>
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<td>77-79 %</td>
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<td>73-76 %</td>
<td>C</td>
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<tr>
<td>70-72 %</td>
<td>C-</td>
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<tr>
<td>67-69 %</td>
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<tr>
<td>63-66 %</td>
<td>D</td>
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<tr>
<td>60-62 %</td>
<td>D-</td>
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<tr>
<td>Less than 60%</td>
<td>F</td>
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</tbody>
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**Graduate Grades will be assigned as follows:**

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<tr>
<th>Percentage</th>
<th>Grade</th>
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<tbody>
<tr>
<td>93 – 100%</td>
<td>A</td>
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<tr>
<td>90 - 92%</td>
<td>A-</td>
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<tr>
<td>87 - 89%</td>
<td>B+</td>
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<tr>
<td>83 - 86%</td>
<td>B</td>
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<tr>
<td>80 - 82%</td>
<td>B-</td>
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<tr>
<td>77 - 79%</td>
<td>C+</td>
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<tr>
<td>73 - 76%</td>
<td>C</td>
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<tr>
<td>70 - 72%</td>
<td>C-</td>
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<tr>
<td>67 - 69%</td>
<td>D+</td>
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<tr>
<td>63 - 66%</td>
<td>D</td>
</tr>
<tr>
<td>60 - 62%</td>
<td>D-</td>
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<tr>
<td>Less than 73%</td>
<td>F</td>
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**Professional Readiness Exam - (MTTC) Michigan Test for Teacher Certification**
In the state of Michigan, a pre-service teacher must take and pass a test in each of the content areas in which s/he plans to be certified. At Wayne State University, passing the PRE tests is a requirement to the student teaching field experience. As a result, it is imperative that pre-service teachers prepare for the tests. There are a number of resources available to teachers to help them...
prepare for the tests.
1. Check the MI PRE/MTTC Tests website, (link made available in Blackboard)
   http://www.mttc.nesinc.com/MI_toc.asp?showtoc=ABOUT - to find out test schedules, how to register for the tests, test objectives and other pertinent information.
2. Study for the tests. Even if you have a major in a subject area, you need to review the material in order to pass the tests. Basic information in the content area is usually tested, reviewing a basic textbook in your content area (e.g., integrated science, math) and the concepts related to that specific test’s objectives will maximize the chances of succeeding. Also, do an online search for textbooks in your particular area.
In addition to reviewing the material from a basic textbook, study guides are excellent resources to prepare for these tests. The following websites have study guides that students may purchase at an affordable price:
   - Teaching Solutions - http://www.teachingsolutions.org/mttc.html - has great study guides that you can download directly into your computer. Unfortunately they have not yet developed a study guide for Integrated Science.
   - Amazon also has a variety of study guides - http://www.amazon.com/s/?ie=UTF8&keywords=mttc+study+guides&tag=googhydr-20&index=aps&hvpadid=1147468841&ref=pd_sl_9caca812mo_b -
3. Register and complete a practice test. There is a fee for the practice exam offered by the state. http://www.mttc.nesinc.com/MI_viewPT_opener.asp
4. WSU- College of Education usually offers at least one test prep session per semester, look for dates and info.
Remember the key to passing the tests is preparation. The sooner you pass the tests the sooner you will be able to get your teaching certification.
   - An MTTC Test Preparation and Practice Session will be scheduled for Final Exam day, to be completed online, in Blackboard, counted as part of participation score.

Course Assignments:
The instructor will provide criteria and a grading rubric for each assignment. (Available in Blackboard) These criteria should be used as guidelines for what the instructor expects in each assignment. **Late assignments will decrease in point value by 5% of the allocated points for each day the assignment is late.** To meet professional quality and presentation standards required of practicing teachers, assignments will be graded on clarity of ideas, grammar, spelling, and adequate word choice. **Assignments must be submitted as a word document. If the Instructor cannot access your work, it will be considered LATE.**

Discussion Board: Required readings from the text and other resources will be evaluated by your response submitted as a Discussion Board post through Blackboard. For each of 6 (six) Discussion Board Forum Assignment, (Except #2), you must make one or more posts.
Your thread must answer the Forum question(s) and also be a reply to or discussion on another posting within the forum.

Your Postings will be assessed for:
  - **Content (50%):** A substantive answer to the question(s), showing clear evidence of understanding the reading material.
Organization (20%): Logical progression of ideas, Minimum 2 paragraph response to question and discussion on another thread post.

Conventions (30%): APA style, grammar, spelling, required citations, on time.

Course Portfolio Resource: An organization of all the materials in the Blackboard site into an electronic Course Portfolio file resource. May be submitted as a CD-ROM or flash drive, must be clearly labeled with student’s name. Refer to guidelines and grading rubric provided.

Assignment I: Educational Resources
This assignment includes two parts:
I. Use the Internet to find at least three sources of grants for science teachers and provide the following information for each source:
1. Website of the organization providing the grant
2. Name of organization or foundation providing the grant
3. Type of grants that teachers can apply for and Maximum amount
4. Download the proposal guidelines for one of the grants
5. Using these guidelines, write a sample proposal applying to one of the grants

II. Use the following website to locate the Math/Science Center that supports the school district in which you live or teach: http://www.mscenters.org/
1. Use the website for the local Math/Science Center and provide the following information:
   • Name of Center
   • Location (address, phone number, email and or web address)
   • Schedule (days of the week and times open)
   • Provide a comprehensive list of the resources available to teachers under the following areas:
     a. Services (e.g., workshops, etc.)
     b. Curriculum (e.g., FOSS, etc.)
     c. Materials (e.g., microscopes, balances, overhead projector, etc.)

2. Describe a solution to the following situation using the information available from the local center/s website:
   • You have been assigned as a long-term substitute for a second grade class in a public charter school, in the metro-Detroit area.
   • The teacher’s lesson plan states that you will be teaching a scientific inquiry unit including hands-on experiences, over the next four weeks, on the topic animal life cycles that must include meal worms and butterflies.
   • No other details are provided.
   • No text books or materials are left for you or the students
   • The principal informs you that they will pay for single workshop/Professional Development with fees up to $50, and that you can be reimbursed up to $20 for materials or supplies.

Assignment 2: Learning Cycle Journal
Students will have multiple opportunities to observe an example of a learning cycle presented by the instructor. Students will then prepare a journal that includes a formal lesson plan for one of the learning cycle performed in class. These journals will be submitted electronically. The eligible learning cycles will be announced in class and are listed in the
Course Documents under “Instructor Learning Cycles”. Rubrics are available in Blackboard, under Assignment #2.
The Learning Cycle Journals have two parts:

**Part 1:** Write a Formal Lesson Plan (in reverse) for the Learning Cycle you observed/participated in including ALL the activities, categorized into appropriate phases (Engage, Explore, Explain, Evaluate, and Elaborate), EXACTLY as you observed them.

**Part 2:** Write a 2-3 page discussion paper describing: how the lesson promotes the nature of science and science process skills, how the lesson is consistent with the purposes of science education, and how the lesson matches how children learn, citing the works of learning theorists (Piaget, Bloom, and Vygotsky) as discussed in assigned readings.

**Assignment 3: Informal Education Setting Learning Plan**

The class will be visiting the Detroit Zoo on a scheduled class field trip as part of this assignment. ($5.00 fee). Extra credit possible for a plan utilizing an informal setting in addition to the zoo.

- Choose a Benchmark Strand- Science content GLCE’s/NGSS DCI/objectives and an informal education setting (Cranbrook, the Detroit Zoo, The Henry Ford, etc…).
- Call and/or visit the website to find information to describe the facilities, programs or services offered, and appropriate grade levels.
- Create a Formal Lesson Plan for students to complete an activity in the informal setting.
- Include an itinerary for the program including specific time scheduled for each program attended, activity performed, breaks, and transit time. Include any information the students will gain from the setting, along with a brochure or visitor’s guide.
- Outline the cost of the program per student, and how you might justify the expense and/or raise the funds.
- **Brochure and “proof of visit” NOT required if you are in attendance for Zoo class visit.**

**Assignment A: MTTC Practice Assessment Items**

As part of a group, you will build 10 items to assess content knowledge based on objectives from the state MTTC guidelines for the integrated science test. This will enable you to practice evaluation of objectives to create authentic assessments, as well as outline a formal study session for the MTTC.

**Assignment 4: Science Lit Kit- Literature Based Science Curriculum Package**

- Obtain (Library check-out is fine) a science-oriented literature book.
- Prepare 5-7 questions for the student to answer during or after reading the book.
- Develop (adapt or adopt) at least one science activity that relates to the topic of the book.
- Describe How the Data is to Be Collected and Communicated.
- Design an assessment tool to provide you information about the student's performance in acquiring new knowledge and skills as a result of this curriculum package.
- Place your Science Curriculum Package in a sturdy, secure container able to hold ALL the contents.
• Write a Formal Lesson Plan including an overview of scientific concepts/principles addressed, Scientific Process Skills Utilized, ALL MI Benchmarks/GLCEs/NGSS DCI and objectives addressed, list of needed materials, teacher procedures guide, student workpages, possible differentiation/inclusion strategies considered, assessment/evaluation strategy used and a list of all references used in developing the project.

• You will submit the write up for grading and bring your actual activity kit to class to share in a brief presentation.

**Assignment 5: Unit Plan Group Project**

• As part of a group, select a science concept from Elementary science NGSS DCI/GLCE/MI benchmarks and develop unit plan based on the concept. It may be formatted as a 5-E learning cycle, or a guided-inquiry unit plan. It must incorporate constructivist, inquiry process skills at a particular grade level.

• The Unit must include Engagement and Exploration of the concept activities, Explanation/Concept Construction methods and term introduction activities, Application activities, and Culminate with Authentic Assessments.

• The unit plans for application activities of this concept must also integrate at least one other subject in the curriculum (e.g., mathematics, language arts, social studies, technology, etc.).

• Prepare lesson plans for your unit.
  * Each person must contribute one complete lesson plan to the unit, including rubrics for all assessments utilized, lesson closing or transition to next lesson.

• Prepare a Students’ guide (workbook) for your unit (At least one per observing group).

• Make a teaching presentation of this lesson to the class.
  * Your group will be required to perform all demonstrations and classmates will participate in the unit activities (either cooperative group setting or station-to-station learning).
  * Materials are limited here in the stockroom; make sure you have chosen activities that utilize easy to find materials (you may need to purchase some items).

• A group tool will be available in blackboard to enable direct e-mail, a virtual classroom, discussion board, and file sharing within your group to facilitate planning your presentation. You must post an outline of your Unit plan with each member’s designated responsibilities on the group discussion board by the mid-point of the course.

• Each individual is required to evaluate the other groups’ units and submit their comments (must submit at end of class period, same day.)

• Each individual is also required to submit a self/individual group reflective evaluation to help assess individual participation within each group, as part of the final unit plan.

• Submit Final Report including teacher guides, student workbook with answer key, all objectives, benchmarks, background information, rationale, resource citations, and self/group reflective evaluation of own group to course instructor. ALL REPORTS are due the first day of scheduled presentations.

• Each group should revise their own unit plan based on feedback from the instructor and peers. Revised reports may be re-submitted within 24 hours after each presentation.

**Each individual will be graded on individual participation within the group and contributions toward:** 1. Presentation of the Unit. 2. Evaluation of Other Groups’ Units. 3. Final Report and Write Up of the Complete Unit Plan with Teacher Guide, Individual Lesson Plans, Student Answer keys, all objectives and benchmarks, resource citations, and self/group reflective evaluation of own group.

**Rubrics and specific examples are available in Blackboard.**
**ELE3500 Course Schedule**

You will be informed of changes to the scheduled topics and/or due dates should the necessity arise. 
ALL work must be submitted before 3:35 p.m., Thursday, April 17, 2014 to be considered for grading.

<table>
<thead>
<tr>
<th>Class Meeting</th>
<th>Topic of Discussion</th>
<th>Assignment DUE</th>
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</table>
| January 9     | Introduction and Course Orientation  
               What is Science? Who is a Scientist?  
               Activities and Discussion | Review Syllabus, required text policies, procedures, access Blackboard: Assignments, resources and course tools.  
**Review Directions- Assignment #1: Educational Resources** Educational grant resources and local ISD center visit (How teachers get “stuff”) |
| January 16    | Exploring Scientific Practices  
               What is Scientific Inquiry?  
               What are Science Process Skills?  
               What is Constructivism?  
               Activities and Discussion | **Discussion Board Assignment #1: Chapters 1 & 5**  
The Nature of Science and Science Teaching  
*Mystery Box, 3 Types of Inquiry Activities* |
| January 23    | The Next Generation Standards, Michigan Benchmarks, GLCEs, and Curricula  
               Planning for Learning, 5E learning cycle  
               Activities and Discussion | **Rules of the Game Activity, MORE website, NGSS**  
**Learning Cycle Group Designations** |
| January 30    | Learning Theories, Philosophy and Pedagogies  
               How People Learn, Disciplinary Core Ideas-Content, Scientific & Engineering Practices  
               Activities and Discussion | **DUE: Assignment #1: Educational Resources Assignment**  
**Discussion Board Assignment #2:**  
Group submission for Assignment 5 |
| February 6    | Adapting a Science Activity  
               Experiencing Inquiry-based Learning Cycles; Bernoulli’s Principle Activities  
               Activities and Discussion | **Prepare to Journal this Learning Cycle; download and print assignment rubric, bring to class** so you have a clear understanding of assignment expectations while journaling |
| February 13   | Adapting a Science Activity  
               Experiencing Inquiry-based learning cycles; Balance Activities;  
               Activities and Discussion | **Prepare to Journal this Learning Cycle**  
**Discussion Board Assignment #3: Chapters 2 & 3**  
Inquiry and Learning Theory |
| February 20   | Informal Learning (Tentative) Field Trip to Detroit Zoo  
Science learning at zoos, museums, and in the field | Make observations and collect data for use in completing **Assignment #3: Informal Learning Plan due March 20** |
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<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Assignments/Details</th>
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<tbody>
<tr>
<td>February 27</td>
<td><strong>Performance Expectations</strong>&lt;br&gt;Determining Variables, Graphic Organizers, Evaluating Students’ (pre/mis-) Conceptions and Conceptual Change, Assessments &amp; Rubrics Activities and Discussion</td>
<td><strong>DUE: Assignment #2: Part I</strong>&lt;br&gt;Must Submit Electronically – I will provide grades, feedback, and revision policy electronically.</td>
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<tr>
<td>March 6</td>
<td><strong>Teaching Professionalism- Continual Learning:</strong> MSTA conference-Extra Credit Possible&lt;br&gt;No On-Campus Class Meeting: #Independent/ Group work on MTTC practice items, Assignment 5 Unit Plan Virtual Meetings as arranged Using BlackBoard Group Tool</td>
<td>No On-Campus Class Meeting&lt;br&gt;DUE: Assignment #5 Group Discussion Board Submission Mid-Point Check-in&lt;br&gt;Post an outline of Planned Lessons included in Unit and each group members’ designated tasks (5 points of Unit Plan total)&lt;br&gt;DUE: Assignment #2: Part II&lt;br&gt;Must Submit Electronically – I will provide grades, feedback, and revision policy electronically</td>
</tr>
<tr>
<td>March 13</td>
<td><strong>No Class Meeting</strong></td>
<td><strong>WSU Spring Break</strong></td>
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<tr>
<td>March 20</td>
<td><strong>Science and Engineering Practices</strong>&lt;br&gt;Mass-Volume-Density; Technology, Engineering and Math (STEM) Activities and Discussion</td>
<td><strong>DUE: Assignment #3: Informal Learning Plan</strong>&lt;br&gt;Discussion Board Assignment #4: Chapter 6 Diverse Learner</td>
</tr>
<tr>
<td>March 27</td>
<td><strong>Classroom Management:</strong> Plan Ahead Materials, Students &amp; Their Parents, Diverse Learners, Activities and Discussion</td>
<td>Discussion Board Assignment #5: Chapters 7 &amp; 8 Inquiry Opportunities and Lifelong Learning Ideal Classroom &amp; Resources Design &amp; share</td>
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<td>April 3</td>
<td><strong>Cross-Cutting Concepts</strong>&lt;br&gt;Science Literature Kits; Integrating Science With Other Subjects; Problem Based Learning; Hand-washing, Health, Evolution; &amp; other Classroom Controversies; Activities and Discussion</td>
<td><strong>Presentation Day</strong>&lt;br&gt;Due: Assignment #4: Student Presentation of Science Lit Kit, and Written Report&lt;br&gt;PBL, Communicable Disease, Learning Spaces, Activities</td>
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<td>April 10</td>
<td><strong>Instructorial Methods and Assessment/Evaluation Peer Teaching Lessons</strong>&lt;br&gt;&lt;ul&gt;&lt;li&gt;Submit entire Unit Plan Report electronically to instructor, bring in one complete hardcopy for instructor at time of presentation; bring one workbook (per group) and all materials necessary to conduct your activities per student group. Arrive for set-up prior to regular scheduled class start to ensure proper organization.&lt;/li&gt;&lt;li&gt;Peer Evaluations are due immediately after each Unit is presented.&lt;/li&gt;&lt;/ul&gt;</td>
<td><strong>Due: ALL Unit Plan Reports</strong>&lt;br&gt;revised reports may be re-submitted AFTER your presentation.&lt;br&gt;&lt;br&gt;<strong>Due: Course Electronic Portfolio Resource</strong>&lt;br&gt;&lt;br&gt;<strong>Due: Unit Plan Presentations</strong>&lt;br&gt;&lt;br&gt;<strong>Due: Peer Evaluations for Groups observing the Unit Plan Presentation</strong>&lt;br&gt;&lt;br&gt;<strong>Discussion Board Assignment #6:</strong> Humane Education- Learning Beyond the Classroom</td>
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<td>Date</td>
<td>Event</td>
<td>Details</td>
</tr>
<tr>
<td>------------</td>
<td>----------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>April 17</td>
<td>Peer Teaching Lessons</td>
<td>Due: Unit Plan Presentations</td>
</tr>
<tr>
<td></td>
<td>LAST CLASS MEETING</td>
<td>Due: Peer Evaluations for Groups observing the Unit Plan Presentation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Due: Assignment A: 10 items for MTTC Practice Test</td>
</tr>
<tr>
<td>April 24</td>
<td>MTTC Test Preparation &amp; Practice On-Line Access in Blackboard</td>
<td>Participation Score for All Students</td>
</tr>
<tr>
<td></td>
<td>No meeting on-campus</td>
<td>Practice Test &amp; feedback session provided in blackboard, on-line environment.</td>
</tr>
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