University of North Texas at Dallas  
Fall 2015  

SYLLABUS  

<table>
<thead>
<tr>
<th>EDEE 4330 D 001 : Science Grades EC-6</th>
<th>3Hrs</th>
</tr>
</thead>
</table>

Department of Teacher Education | Division of Education and Human Services

**Instructor Name:** Dr. Ratna Narayan  
**Office Location:** 201 N Dallas 1  
**Office Phone:** 972 780 1340, Cell: 806 252 5277  
Phone calls/texts to my cell are welcome between 9AM and 10 PM daily and replies can be expected within no more than 24 hours.  
**Email Address:** Ratna.narayan@unt.edu  
**Office Hours:** Monday 1-5pm Wednesday 2:30 - 4:30 pm, Thursday 2:30 – 5:30 pm, or by appointment

**Classroom Location:** Dallas 1 room 344  
**Class Meeting Days & Times:** Thursday 11:30 pm – 2:20 pm  

**Important dates:**  
Aug 29th Orientation at the Perot, Nov 12-14th Presentation at CAST in Fort Worth. Attendance is mandatory  
Oct 1st Materials list due to Thomas

**Course Catalog Description:** The purpose of this course is to provide teacher candidates with the subject matter, background, and material organization for an integrated science program in the primary/elementary school. Students experience first-hand the scope and sequence of science education in a primary/elementary/middle school setting.

**Recommended Text and References:** Articles will be uploaded on Blackboard as and when required.

**You Need:**  
A google email id and password. We will be using google docs to create the science resource folios.  
A print out of the science TEKS EC-6  
Access to a scanner  
A positive attitude towards the course activities and field experiences

**Access to Learning Resources:**  
UNT Dallas Library:  
phone: (972) 780-3625;  
web: http://www.unt.edu/unt-dallas/library.htm  
UNT Dallas Bookstore:  
phone: (972) 780-3652;  
e-mail: 1012mgr@fheg.follett.com

**Field Experience:** This course has a 25 hour field experience component that must be completed with the field experience logs submitted in a timely manner in order to get a grade for the course.
20 hours will be completed at the Perot while 5 hours will be spent observing in an elementary science classroom. Failure to complete the field experience will result in failing the class.

Course Goals or Overview:

The goal of this course is to provide teacher candidates with the knowledge, skills and dispositions as a basis for making decisions in respect to teaching elementary school science.

The knowledge, skills and dispositions developed in this course are delineated in a variety of ways, including student learning outcomes, assessments, assignments, and various course activities. They are also developed in a manner consistent with recommendations of the National Research Council’s National Science Education (NSES) and National Science Teachers Association (NSTA) Standards, requirements of the Texas State Board for Educator Certification (TEKS) and Interstate New Teacher Assessment and Support Consortium (INTASC) standards.

Learning Objectives/Outcomes: At the end of this course, the student will

1. Be able to demonstrate the use of instructional strategies and teaching activities to teach the science content knowledge included in Texas’ Essential Knowledge and Skills (The TEKS).

2. Learn to teach science activities or lessons at the elementary level by a variety of approaches (discovery, inquiry, decision-making, and problem solving) and in a variety of grouping arrangements.

3. Develop a deeper understanding and appreciation of the science content covered in K-6 schools.

4. Learn to apply technology to elementary school science by identifying, describing, and using instructional software, Internet and other computer applications than would enhance instruction.

5. Complete classroom observations and related tasks in field-based settings.

6. Plan science activities and lessons and teach them to students in school and field-based settings.

7. Use reflective analysis to improve their teaching.

Course Outline

This schedule is subject to change by the instructor. Any changes to this schedule will be communicated both verbally in class as well as through Blackboard.

Please Note: assignments include both those completed in class as well as for homework.
| Homework 1 for Sept 3rd  
Complete the 5th grade science STARR test and bring the results to class. Please check BB discussion thread for more directions on this assignment |
**TEKS: K-6 (0.1-0.4) Science Process / Inquiry**  
**NSES / NSTA: Inquiry and the National Science Education Standards**  
Standard 3 - Inquiry  
**INTASC: Standard 1 – Content Pedagogy**  
Sept 3rd  
**Scientific method**  
**Orientation reflection due Sept 5th on BB. Please refer to the discussion section on BB for prompts for this reflection.** |
| 1, 2, 3, & 7 |
| Science Safety in the Elementary Classroom, MSDS sheets, safety contracts  
**TEKS: K-6 (0.1) The student conducts field and laboratory investigations using safe, environmentally appropriate, and ethical practices.**  
**NSES / NSTA: Safety and School Science Instruction**  
Standard 9 – Safety & Welfare  
**INTASC: Standard 6 – Communication & Technology, Standard 7 - Planning**  
Sept 10th  
**Safety contract**  
**Submit hands-on EC-6 activity for CAST** |
| 2, 6 & 7 |
| Constructivism in the Elementary Classroom Planning and Teaching Science: Activities, Lessons, and Units, 5E model, Hands-on activity, Visual Organizer, Extension activity, Formative and Summative Assessments, Administration and Arts Integration (e.g., scientific illustration, using science trade books [language arts literacy]), dramatic performance [skits/historical science leader role play], and music.  
**TEKS: K-6 (0.5 – 0.14) Science concepts**  
**NSES /NSTA: Standards for Science Teaching EC-6 Chapter 3, Standards for Science Content EC-6 Chapter 6**  
Standard 5 – General Teaching Strategies  
**INTASC: Standard 2: Planning Standard 7- Planning**  
Sept 17th  
**5E lesson, subject integration**  
**Sept 17th Draft of TK 20 section 2, standards 4, 5 and section reflection due on BB. Please check BB discussion thread for more directions on this assignment** |
<p>| 1-7 |</p>
<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept 24th</td>
<td>24th work day. You will work on your cart activities as a group in class.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Sept 24th</em></td>
<td><em>First phase of the science resource folio due on google docs.</em></td>
</tr>
<tr>
<td></td>
<td>Scientific inquiry in the elementary class</td>
<td><em>Definition, types, examples, expectations of teachers, students</em> <em>TEKS: K-6 (0.1-0.4) Science Process / Inquiry</em> <em>NTASC: Standard 2: Planning</em></td>
</tr>
<tr>
<td>Oct 1st</td>
<td>Scientific inquiry</td>
<td><em>Oct 1st the materials list with activity prices and websites for the cart activities will be emailed to Thomas.</em> <em>Oct 4th P2 reflection due on BB. Please refer to the discussion section on BB for prompts for this reflection.</em></td>
</tr>
<tr>
<td>Oct 8th</td>
<td>Assessment in the Science Classroom</td>
<td><em>Oct 8th 5E Cart activity lesson plan due on BB</em></td>
</tr>
<tr>
<td>Oct 15th</td>
<td>Game Day. Test out the Museum game you designed in class.</td>
<td><em>Oct 15th Game lesson plan, documents due on BB</em></td>
</tr>
<tr>
<td>Oct 22nd</td>
<td>Multicultural Science Education</td>
<td><em>Oct 22nd 24th second phase of the science resource folio due on google docs.</em></td>
</tr>
</tbody>
</table>
## Use of Models in the Elementary Science Classroom

**TEKS: K-6 (a) Use of models of objects and events as tools for understanding the natural world and to show how systems work.**

**NSES / NSTA: Standards for Science Teaching EC-6 Chapter 3, Standard 5 – General skills of teaching.**

**INTASC: Standard 4: Multiple Instructional Strategies.**

<table>
<thead>
<tr>
<th>Date</th>
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<tbody>
<tr>
<td>Oct 29th</td>
<td>Mock CAST Presentations in class.</td>
<td>1-3,7</td>
</tr>
<tr>
<td>Nov 5th</td>
<td>Nov 5th  If Thomas has all the materials, we will have class at the Museum to practice with the cart activity materials. Please bring cart activity documents with you. Nov 10th P3 reflection due on BB. Please refer to the discussion section on BB for prompts for this reflection.</td>
<td>1-3,7</td>
</tr>
<tr>
<td>Nov 12th – 14th</td>
<td>CAST presentation in Fort Worth</td>
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<tr>
<td>Nov 19th</td>
<td>1 hour in class interaction with partner regarding cart activity (exchange of lesson plans) Nov 24th third phase of the science resource folio due on google docs.</td>
<td>1-3,7</td>
</tr>
<tr>
<td>Nov 26th–Nov 29th</td>
<td>Draft of Key assignment uploaded to BB/TK Nov 30th</td>
<td></td>
</tr>
<tr>
<td>Dec 3rd</td>
<td>Dec 5th P4 reflection due on BB. Please refer to the discussion section on BB for prompts for this reflection.</td>
<td>1-3, 5-7</td>
</tr>
</tbody>
</table>

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## Controversial Issues in Science and Science Teaching

**TEKS: K-6 (0.4,0.5) Science Process**

**NSES / NSTA: National Science Education Standards, an overview Standard 4 – Issues.**

**INTASC: Standard 1: Content Pedagogy Standard 10 – School and community involvement.**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tr>
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<td>CAST presentation in Fort Worth</td>
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<td>1 hour in class interaction with partner regarding cart activity (exchange of lesson plans) Nov 24th third phase of the science resource folio due on google docs.</td>
<td>1-3,7</td>
</tr>
<tr>
<td>Thanksgiving holiday</td>
<td>Nov 26th–Nov 29th Draft of Key assignment uploaded to BB/TK Nov 30th</td>
<td></td>
</tr>
</tbody>
</table>

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## Scientific Literacy, Reading and Writing Science, Science Notebooks

**TEKS: K-6 (0.3) Science Process**

**NSES / NSTA: National Science Education Standards, an overview Standard 3 - Inquiry Standard 5 – General skills of teaching.**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec 3rd</td>
<td>Dec 5th P4 reflection due on BB. Please refer to the discussion section on BB for prompts for this reflection.</td>
<td>1-3, 5-7</td>
</tr>
</tbody>
</table>

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Tentative Schedule for the Perot Fall 15:

This is a tentative schedule subject to change. You will be notified of any changes that might occur.

<table>
<thead>
<tr>
<th>Phase</th>
<th>Tentative dates for each phase</th>
<th>What you will be doing in each phase</th>
<th>Assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>August 29th 9 am - 3pm</td>
<td>Orientation to the museum, explore exhibit halls, examples of games, cart activities</td>
<td>P1 Reflection due on BB Sept 5th</td>
</tr>
<tr>
<td>P2P1</td>
<td>Aug 30 – Sept 13th</td>
<td>3 hours. In Hall 1 (Cart activity hall). Jointly work on vocab / teks for resource folio. Shadow a GEP for 2 hours. For this phase you will sign up for times provided by the museum on google docs</td>
<td>P2 Reflection due on BB Oct 4th</td>
</tr>
<tr>
<td>P2p2</td>
<td>Sept 14th – Sept 27th</td>
<td>2 hours. In hall 1. Interact with visitors in hall 1. For this phase you will sign up for times as per your schedule on google docs</td>
<td></td>
</tr>
</tbody>
</table>

October 1st: The materials list with prices and websites for the cart activities will be emailed to Thomas.

| P3p1  | Sept 28th – Oct 11th           | 3 hours. Explore exhibit hall 2 (game hall of their choice) Shadow GEP in Game Hall for 2 hours. For this phase you will sign up for times provided by the museum on google docs | |

October 15th: Test game out in class. Submit game details in BB in required format and game lesson plan.

| P3p2  | Oct 16th – Oct 30th            | 3 hours. Interact with museum visitors using your game in the Game exhibit hall For this phase you will sign up for times as per your schedule on google docs | P3 Reflection due on BB Nov 10th |

| P3P3  | Oct 31st – Nov 10th             | 2 hours partner up with someone in another game hall and play their game (1 hour in your hall, 1 hour in their hall) For this phase you will sign up for times as per your schedule on google docs | |

Nov 6th: If Thomas has all the materials then have class at the museum, let them test out cart activities.
| **P4P1** | Nov 10th – 24th (CAST is Nov 12-14th) | 3 hrs. Interact with visitors with the cart activity in hall 1  
For this phase you will sign up for times as per your schedule on google docs | P4 Reflection due on BB Dec 5th |
| **P4P2** | Nov 24th – Dec 3rd | 4 hours You will sign up with a partner in another cart activity hall. You will spend 2 hours in your hall teaching them your cart activity and spend 2 hours in their hall interacting with their cart activity.  
For this phase you will sign up for times as per your schedule on google docs (thanksgiving nov 26-29th) | |

Post survey to be completed by Dec 7th 5 pm

**Important Note: Dos and Don’ts at the Perot**

DON’T BE LATE. DON’T CHEW GUM. DON’T BE RUDE.  
DON’T CHANGE THE TIME AND DATE YOU HAVE SCHEDULED YOURSELF FOR. This is important. Your signing up for a particular date or time at the museum is a PROFESSIONAL COMMITMENT. I have to let the museum know when you are coming and if you don’t show up that is unprofessional. If you have signed up for a particular time and don’t show up, you get zero on those related assignments plus you don’t complete the required hours for the class which can fail you. If you are sick please produce a doctor’s note. Just saying I am not feeling well won’t cut it sorry!  
DON’T SIGN UP FOR 3 HOURS AND STAY FOR 2. You will sign in and out each time you go to the Perot. I have access to these sign in times and I will check on these randomly.

Remember you are representing Dr. N and UNT Dallas. Be professional, positive, enthusiastic and engaging and always ready to learn.

**Attire to be worn:**

On the Jan 24th: Comfortable shoes, you will be doing a lot of walking, comfortable, professional looking clothes.

For all the Phases: Black pants and a white top/ tee, shirt (no color showing at all), comfortable closed toe shoes

**Parking and entry to the museum** will be free each time you go to the museum for the field experiences for EDEE 4330

**Course Evaluation Methods**

The course will utilize the following instruments to determine student grades and proficiency of the learning outcomes for the course

**Assignments**

1. Weekly Activities– Readings and other activities that are assigned weekly throughout the semester.
2. Reflection Papers—Reflective writings that serve to integrate your experiences in the classroom and in the field during the semester.
3. Perot museum assignments
4. Science resource folio related assignments
5. Other Assignments

### Assignments and grades:

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Brief Description</th>
<th>Points</th>
<th>SLOs</th>
<th>Due date</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Museum Related Assignments</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-Survey</td>
<td>A pre survey on survey monkey to be completed before you go to the Museum</td>
<td>20</td>
<td>7</td>
<td>Aug 27th</td>
</tr>
<tr>
<td>Post-Survey</td>
<td>A post survey taken before finals on survey monkey</td>
<td>10</td>
<td>1-7</td>
<td>Dec 7th</td>
</tr>
<tr>
<td>P1 reflection</td>
<td>Orientation reflection at the Museum</td>
<td>20</td>
<td>1, 2, 3, 6, 7</td>
<td>Sept 5th</td>
</tr>
<tr>
<td>P2 reflection</td>
<td>Reflection after completing P2 at the Museum</td>
<td>10</td>
<td>1, 2, 3, 6, 7</td>
<td>Oct 4th</td>
</tr>
<tr>
<td>P3 reflection</td>
<td>Reflection after completing P3 at the Museum</td>
<td>10</td>
<td>1, 2, 3, 6, 7</td>
<td>Nov 10th</td>
</tr>
<tr>
<td>P4 reflection</td>
<td>Reflection after completing P4 at the Museum</td>
<td>20</td>
<td>1, 2, 3, 6, 7</td>
<td>Dec 5th</td>
</tr>
<tr>
<td>Museum Game</td>
<td>Description and lesson plan</td>
<td>20</td>
<td>1, 2, 3, 6, 7</td>
<td>Oct 15th</td>
</tr>
<tr>
<td>Museum Cart activity</td>
<td>Description, activity, materials list Cart activity Lesson plan</td>
<td>10</td>
<td>1, 2, 3, 6, 7</td>
<td>Oct 8th</td>
</tr>
<tr>
<td><strong>Science resource folio related assignments</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Phase 1 science folio</td>
<td>Phase 1 of the science resource folio on google docs</td>
<td>100</td>
<td>1-7</td>
<td>Sept 24th</td>
</tr>
<tr>
<td>Phase 2 science folio</td>
<td>Phase 2 of the science resource folio on google docs</td>
<td>100</td>
<td>1-7</td>
<td>Oct 24th</td>
</tr>
<tr>
<td>Phase 3 science folio</td>
<td>Phase 3 of the science resource folio on google docs</td>
<td>100</td>
<td>1-7</td>
<td>Nov 24th</td>
</tr>
<tr>
<td>Content final</td>
<td>Comprehensive content final</td>
<td>40</td>
<td>1 - 7</td>
<td>Dec 10th</td>
</tr>
<tr>
<td><strong>Other assignments</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5th grade Starr test</td>
<td>Take the 5th grade science STARR test and reflect on how you did</td>
<td>10</td>
<td>1, 3, 7</td>
<td>Sept 3rd</td>
</tr>
<tr>
<td>TK20 Section 2</td>
<td>Standards 4 &amp; 5 reflections and artifacts, section reflection</td>
<td>20</td>
<td>1, 2, 3, 6, 7</td>
<td>Sept 17th</td>
</tr>
<tr>
<td>Key assignment</td>
<td>Upload key assignment narrative and documents to BB</td>
<td>10</td>
<td>1-7</td>
<td>Nov 30th</td>
</tr>
<tr>
<td>CAST science activity and</td>
<td>50 points for presentation 50 points for documents</td>
<td>100</td>
<td>1 - 7</td>
<td>Oct 29th</td>
</tr>
</tbody>
</table>
**Please see last pages of this syllabus for more information on the science resource folio**

**Grade Distribution:**

- 600 – 540 = A
- 539 – 480 = B
- 479 – 420 = C
- 419 – 360 = D
- Below 359 = F

Please note: All the assignments are compulsory. All assignments will be submitted to a thread in Blackboard unless mentioned otherwise. I expect you to complete all the assignments in a timely fashion. There will be no substitutions unless I approve of them. Professional development opportunities will be offered; if you are unable to avail of these an alternate assignment will be provided.

**Critical Grade Considerations:**

**Attendance considerations:**
You are expected to come to class on time and stay the duration of the class as an active participant. You will lose 10 points from your total for every tardy. You will sign into class each time you arrive and if you are 10 minutes late it will be considered as a tardy.

All learning activities must be completed in order to receive credit for this course. There will be a letter grade deduction from the final grade for each unexcused absence and for each excused absence beyond one.

**Assignment considerations:** Students must complete all assignments on time to receive a passing grade. If any assignment is not completed and submitted within 48 hours of the due date, the student will automatically receive no points for that assignment. Not completing work is unacceptable for teachers. Please follow the requirements and due date for each assignment. Assignments turned in more than 24 hours late will lose 50% of the points for the assignment. Assignments turned in more than 48 hours after the assignment deadline will not receive any points. Assignments that have not been spell checked or have grammatical errors will NOT be graded.

**Class Participation – Expectations**

1. ATTENDANCE - Attend all classes, meetings, etc. arriving on time.
2. PREPARATION - Be prepared to discuss assigned readings and submit assignments according to established deadlines.
3. PARTICIPATION - Contribute constructively and respectfully to all discussions and activities.
4. RESPECT – Do not talk while the teacher or another presenter is speaking.
5. ACADEMIC HONESTY - Know and follow course, departmental, program and university policies on assignments and assessments.
6. PROFESSIONALISM - Know and follow departmental, program and university policies expected of PDS students.
7. Participation and Professionalism – CRITICAL!

8. You are expected to be present in class and on time especially on presentation dates. If you arrive late you will lose 25% of the assigned points.

University Policies and Procedures

Students with Disabilities (ADA Compliance):
The University of North Texas Dallas faculty is committed to complying with the Americans with Disabilities Act (ADA).

“Any student requesting academic accommodations based on a disability are required to register with Disability Services each semester. A letter of verification for approved accommodations can be obtained from this office. Please be sure the letter is delivered to me as early in the semester as possible. Disability Services is located in DAL 2, Room 204 and is open 8:30-5:00p.m., Monday through Friday. The phone number is (972) 338-1777.”

Students with documented disabilities are responsible for informing faculty of their needs for reasonable accommodations and providing written authorized documentation. For more information, you may visit the Office of Disability Accommodation/Student Development Office, Suite 115.

Student Evaluation of Teaching Effectiveness Policy:
The Student Evaluation of Teaching Effectiveness (SETE) is a requirement for all organized classes at UNT. This short survey will be made available to you at the end of the semester, providing you a chance to comment on how this class is taught. I am very interested in the feedback I get from students, as I work to continually improve my teaching. I consider the SETE to be an important part of your participation in this class.

Assignment Policy:
All assignments are compulsory. There are no exceptions to this rule. Please refer to the assignment expectations document for details about each assignment and its due dates.

Late assignments: Please adhere to the due dates for each assignment. If your assignment is not submitted by the due date, I reserve the right to deduct points and return it to you so you may improve on it and resubmit to get some of the deducted points back if the work is deemed satisfactory. All assignments are due by 5pm Dec 10th 2015 after which NO assignments will be accepted or graded.

Exam Policy:
Exams should be taken as scheduled. No makeup examinations will be allowed except for documented emergencies (See Student Handbook).

Academic Integrity:
Academic integrity is a hallmark of higher education. You are expected to abide by the University’s code of conduct and Academic Dishonesty policy. Any person suspected of academic dishonesty (i.e., cheating or plagiarism) will be handled in accordance with the University’s policies and procedures. Refer to the Student Code of Conduct at http://www.unt.edu/csrr/student_conduct/index.html for complete provisions of this code.
Please take the time to go through this link. If I find you have plagiarized from any source without giving them due credit I will give you a zero for that assignment.

**Bad Weather Policy:**
On those days that present severe weather and driving conditions, a decision may be made to close the campus. In case of inclement weather, call UNT Dallas Campuses main voicemail number (972) 780-3600 or search postings on the campus website [www.unt.edu/dallas](http://www.unt.edu/dallas). Students are encouraged to update their Eagle Alert contact information, so they will receive this information automatically.

**Attendance and Participation Policy:**
The University attendance policy is in effect for this course. Class attendance and participation is expected because the class is designed as a shared learning experience and because essential information not in the textbook will be discussed in class. The dynamic and intensive nature of this course makes it impossible for students to make-up or to receive credit for missed classes. Attendance and participation in all class meetings is essential to the integration of course material and your ability to demonstrate proficiency. **Students are responsible to notify the instructor if they are missing class and for what reason. If I have not heard from you AND receive supporting documentation for your absence, I shall consider it an unexplained absence. Two such absences will reduce your overall grade by a letter grade irrespective of the points you might make. Students are also responsible to make up any work covered in class. It is recommended that each student coordinate with a student colleague to obtain a copy of the class notes, if they are absent. If you have missed a class, please make an appointment to meet me so we can determine what needs to be done to make up the lost time. If you are absent on a presentation day you will get zero points for that assignment.**

**Diversity/Tolerance Policy:**
Students are encouraged to contribute their perspectives and insights to class discussions. However, offensive & inappropriate language (swearing) and remarks offensive to others of particular nationalities, ethnic groups, sexual preferences, religious groups, genders, or other ascribed statuses will not be tolerated. Disruptions which violate the Code of Student Conduct will be referred to the Center for Student Rights and Responsibilities as the instructor deems appropriate.

**Optional Policies:**

*Use of WebCT/Blackboard*
I will expect you to use Blackboard to upload your reflection papers and I will give you feedback on those on Blackboard. Please monitor these for additional comments I give or information I require.

*Use of Cell Phones & other Electronic Gadgets in the Classroom*
Please do not use your cell phones in class. If it is an emergency, I will permit you to leave class and take the call. **If I see you texting or playing videogames or checking your email in class I will drop you a letter grade.**

*Food & Drink in the Classroom*
I do not mind food and drink in the classroom, however when we are conducting an activity, I will expect all food and drink to be put away immediately. All food and drinks must be properly disposed of.
Use of Laptops
If I need you to use a laptop during class I will take you to the computer lab.

Grade of Incomplete, “I”
A grade of incomplete, “I” will be given only under extenuating circumstances.
Science Resource Folio

You will use the format provided to create science resource folios in groups and individually. A science resource folio is a collection of pages with relevant information on them. Each page will revolve around a particular concept providing a drawing / picture, meaning of the word, word in Spanish, TEKS, stem and everyday life application pictures, an activity for the concept etc. Please see Force example. The science resource folio will be created in different phases with different groups and we will merge them at the end. The purpose is to make sure all students get familiar with different science concepts and vocabulary terms related to the museum and to the EC-6 generalist, so it will help you study for the generalist exam and serve as a resource when you teach.

You will be divided into 6 groups according to the cart activity groups and you will use google docs to work collectively and individually on your group folio throughout the semester

Phase 1 of the Science resource folio:

This will correlate to Phase 2 of the Perot Museum field experience. Explore the exhibit Hall you are assigned to. You will take your TEKS science EC-6 with you. I want a vocabulary list of 25 important science vocabulary terms relevant to the exhibit hall and to the EC-6 TEKS and EC-6 generalist. I want the terms to be distinct and not overlap. You can work on this with a partner. You will create individual pages on google docs for each term using the format provided. In addition to the 25 terms I want each student to pick 1 new term related to any of the 25 terms and create an individual page for that term. So each student will have 5-6 terms they are responsible for. The format asks for you to draw your understanding of the term or concept. Please make sure your drawing is clear and representative of your thoughts on the concept. Of the 6 terms you can draw 3 and ask a child you know to draw the other three. Please make sure you use the same format throughout and alphabetize the document.

The completed Phase 1 of the science folio is due on sept 24th

Consequences for late submission: All the members of the group lose 10 points a day. The individual responsible for the late submission loses 10 points per missing word and drops a letter grade regardless of their total score at the end.

Phase 2 of the Science resource folio:

For this section you will work in pairs. You will locate the new EC-6 generalist preparation manual uploaded to the content section of BB. Your task for the next three phases lies on pages 45 from Competency 007 to page 49 Competency 018. For this phase, among the pairs, (assuming there are three pairs), one pair will pick 10 vocabulary words / concepts from Physical science (concepts 007-010), a second pair will pick 10 vocabulary words / concepts from Life Science (concepts 011 – 014), while a third pair will pick 10 vocabulary words / concepts from Earth and Space Science (concepts 015 – 018) and enter them in your resource folio following the same format as in the earlier phase. Please keep the three sections separate, yet alphabetize the concepts in each section. Please make sure these are terms that have not appeared in the folio before.

The completed Phase 2 of the science folio is due on Oct 24th
Consequences for late submission: All the members of the group lose 10 points a day. The individual responsible for the late submission loses 10 points per missing word and drops a letter grade regardless of their total score at the end. If you have already been dropped a letter grade for phase 1, you will drop a second letter grade for phase 2 being late regardless of your total at the end.

Part 3 of the resource folio:

For this section you will work in pairs. You will locate the new EC-6 generalist preparation manual uploaded to the content section of BB. Your task for the next three phases lies on pages 45 from Competency 007 to page 49 Competency 018 or from the EC-6 generalist or Starr tests. Each pair will pick 5 words each from remaining two sections that they did not do in phase 2 of this project. For instance if you did Physical science in phase 2 in phase 3 you will do 5 words from earth science and 5 from life science. Again there must be NO replications. Due date Nov 24th

Consequences for late submission: All the members of the group lose 10 points a day. The individual responsible for the late submission loses 10 points per missing word and drops a letter grade regardless of their total score at the end. If you have already been dropped a letter grade for phase 1, you will drop a second letter grade for phase 2 being late regardless of your total at the end.

Here is a sample of what I am expecting for the term force!

**Science Concept:** Force

**Spanish:** Fuerza

Draw what you think the term force means here
(this will be your drawing or that of a child that you can scan in here.) Describe what you have drawn.

**My understanding of the term:** It is some kind of pull or push, power
**Definition:** A force is a push or pull upon an object resulting from the object's interaction with another object. Whenever there is an interaction between two objects, there is a force upon each of the objects. When the interaction ceases, the two objects no longer experience the force. Forces only exist as a result of an interaction. Interaction means how one object affects the other.


**Units:** It is measured in the SI unit of Newtons and represented by the symbol F.

**Formula:** \( F = m \times a \) where \( m \) = mass and \( a \) = acceleration

**Related terms:** mass, acceleration, newton, balanced and unbalanced forces, Newton’s Laws, inertia, gravitational force

**TEKS:** 6 (A,B,C,D)

**Competency:** Competency 007 (Forces and Motion): The teacher understands forces and motion and their relationships.


**You tube video:** [https://www.youtube.com/watch?v=2OJjbztWitk](https://www.youtube.com/watch?v=2OJjbztWitk)

**Question from the Generalist or Starr test:**
An object is being acted on by a force of 20 N directed to the left and a force of 30 N directed to the right. What is the net force acting on the object?
A. 10 N to the left
B. 50 N to the left
C. 10 N to the right
D. 50 N to the right

**Relation to everyday life:**
**Picture 1:** What am I looking at: Children in a tug of war trying to pull the rope towards them. Force = pull, also friction
Picture 2. **STEM application.** What am I looking at: Parachute drifting towards the earth because of the earth’s gravitational force, the broad chute slows down its descent.

**Source:** http://www.fourseasonsamusements.com/assets/root/categories/Photo%20Opp%20and%20Other/tug_of_war.jpg

**Comment [O16]:** The picture must be of good quality, must not be grainy or unclear.

**Comment [O17]:** Where did you get the picture from?

**Comment [O18]:** How is this related to a STEM application. Describe in a line or two

Prepared by: xxxxxxx and date

Comment [O19]: Source of the picture
Comment [O20]: Your name and that of your partner goes here and the date you completed it.