



**IS351.711 Science Inquiry
COURSE SYLLABUS: FALL 2012**

Instructor: Melinda Ludwig
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COURSE INFORMATION

Materials – Textbooks, Supplementary Readings:

Texts: Reviewing Science Cohen/Deutsch/Sorrentino (2009)
Project WILD Manual

Additional Supplies: Notebook or paper for notes, lab reports; pencils; map colors; rigid metric ruler; scissors, calculator.

Course Description:

Science Inquiry is a course composed of minimal lecture. The bulk of the course consists of a variety of hands-on, inquiry science activities that target science instructional strategies in grades Pre-K through 8.

Student Outcomes:

1. Through participation in the inquiry science activities, students will gain experience and knowledge that will help them prepare for the science section of the TExES exam.
2. Students will gain practical and interesting science knowledge and skills appropriate for science instruction in grades Pre-K through 8.
3. Students will increase their own science literacy by participating in the inquiry science activities.
4. Students will gain experience in cooperative learning techniques, which are used as part of the inquiry method.

COURSE REQUIREMENTS

“This course consists of a selection of hands-on, inquiry science activities from a variety of disciplines/sources and is designed to enhance your skills in teaching science to elementary and middle school students. Each week you will participate with members of your group in completing one, or more, inquiry science activities.”

Grading

Grading Scale: (90-100% = A; 80-89% = B; 70-79% = C; 60-69% = D; Below 60% = F)

Class Participation.....	10%
(Begin with 100 points; 10 points deducted for each absence, regardless of reason; 5 points deducted for arriving late)	
Lab Reports (average of all lab grades; most will be group reports).....	30%
Three Major Exams (10% each).....	30%
Weekly TExES Science Prep Quiz (10 short quizzes; 10 points each).....	10%
FINAL EXAM (Comprehensive).....	20%

TECHNOLOGY REQUIREMENTS

N/A

ACCESS AND NAVIGATION

N/A

COMMUNICATION AND SUPPORT

Interaction with Instructor Statement:

You may contact me via e-mail (LudwMlud@aol.com) concerning anything related to the course in which you are enrolled. I will respond to your e-mail in a timely manner.

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures:

Academic Honesty Policy:

Texas A&M University – Commerce does not tolerate **plagiarism** and other forms of **academic dishonesty**. Conduct that violates accepted standards of academic honesty is defined as academic dishonesty. “Academic dishonesty” includes, but is not limited to, plagiarism (the appropriation or stealing of the ideas or words of another and passing them off as one’s own), **cheating on exams or other course assignments**, collusion (the unauthorized collaboration with others in preparing course assignments), and abuse (destruction, defacing, or removal) of resource material.

Disciplinary action for these offenses may include any combination of the following:

1. Point deduction on an assignment.
2. Failure for an assignment.
3. A grade of zero for an assignment.
4. Failure for the course.
5. Referral to the Academic Integrity Committee or department head for further action.
6. Referral to the Dean of the College of Education and Human Services, Business and Technology, Arts and Sciences, or Graduate School as appropriate.
7. Referral to the University Discipline Committee.
8. Communication of the student's behavior to the Teacher Certification Office and/or the Dean of the College of Education as constituting a reason to bar the student from entering into or continuing in a teacher certification program. Procedures A 13.04, 13.12, 13.31. and 13.32.

Examination Policy:

Exams will be in two parts:

- 1) A laboratory-based part which will be completed by your group and for which you can use any printed resources you have with you. (40 points)
- 2) An individual part, which you will complete by yourself, with no resources other than your knowledge of science and laboratory procedures. (60 points)

Attendance Policy:

It is the prerogative of the instructor to drop students from courses in which they have accrued excessive absences (three or more). However, a student wishing to drop the course should do so. Failure to do so may result in a failing grade.

You are expected to attend each class meeting and to arrive on time. Each late arrival may result in a 5 point deduction from your class participation grade. Late arrival will also prevent you from taking the TExES practice quiz for that class session and will affect your average.

THERE ARE NO MAKE-UPS FOR LAB ACTIVITIES THAT YOU MISS. A ZERO WILL BE RECORDED FOR ANY LAB ACTIVITY MISSED BECAUSE OF ABSENCE. YOU ARE STILL RESPONSIBLE FOR CONTENT OF LAB ACTIVITIES THAT YOU MISS. YOU SHOULD CHECK WITH GROUP MEMBERS ABOUT CONTENT AND DATA COLLECTED.

IF YOU MISS A MAJOR TEST, YOU MUST CONSULT WITH THE INSTRUCTOR REGARDING A POSSIBLE MAKE-UP. ALL MAKE-UP TESTS WILL BE ENTIRELY ESSAY IN FORMAT. ONLY AN ABSENCE DUE TO EXTRAORDINARY CIRCUMSTANCES WILL BE CONSIDERED IN ALLOWING A MAKE-UP TEST AND ONLY AFTER PROPER DOCUMENTATION OF THE REASON FOR THE ABSENCE HAS BEEN PROVIDED.

BEST ADVICE: SHOW UP ON TIME!

Additional Requirements:

1. All work submitted for grading must be done in pencil. Any drawings/diagrams that involve color must be done with map pencils. No pens or markers. Five points will be deducted from the grade if ink/marker is used.

2. All numerical answers must include the unit. The answer will be marked wrong, if there is no unit.
3. Any straight lines used in a lab report must be drawn with a rigid ruler. Five points will be deducted from the grade if no ruler is used for straight lines.
4. No food allowed in the lab classroom. Drinks in cups with lids or drinks in bottles are allowed. Any spills must be cleaned up immediately.
5. **You should dress as if you were in your own classroom at school. Extremes in dress are not consistent with the professional atmosphere in a public/private school. Remember that you are not only your students' teacher, you are also their role model.**
6. **TURN OFF ALL ELECTRONIC COMMUNICATION DEVICES DURING CLASS. YOU MAY BE ASKED TO LEAVE THE CLASSROOM FOR THE DURATION OF THE SESSION, IF YOU CANNOT ABIDE BY THIS REQUEST. YOU WILL NOT RECEIVE CREDIT FOR THE ASSIGNMENT(S) THAT YOU MISS.**
7. **You may not bring your children to class. There are liability and safety issues that must be respected.**

University Specific Procedures:

ADA Statement

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services
Texas A&M University-Commerce
Geer Library 132
Phone (903) 886-5150 or (903) 886-5835
Fax (903) 468-8148
StudentDisabilityServices@tamuc.edu
[Student Disability Resources & Services](#)

Internship Requirements:

All students applying for internship must attend a mandatory meeting the semester prior to the internship beginning. If you are interning in the fall, the meeting will be in January. If you are interning in the spring, the meeting will be in August.

All students must complete an application for internship. Students must meet the following requirements:

- a) Reading THEA score of 250 or Accuplacer Reading Score of 88 or COMPASS reading score of 90 or ACT score of 23 or SAT Verbal score of 550.
- b) Math THEA of 230, ACT score of 19 or SAT Math Score of 500, grade of C or better in College Algebra.
- c) Writing THEA of 220, grade of C or better in College English
- d) 2.5 GPA overall
- e) 2.5 GPA Interdisciplinary Studies Courses
- f) 2.5 GPA Specialization Courses
- g) 2.5 GPA Professional Development Courses

h) Completion of all of the following courses: ELED 200, 300, RDG 350, 360,370, PSY 300, 310, SPED 346, IS351 OR 352, MATH 350

i) Students may not lack more than 9 hours on entering internship. The following may be lacking: MusArtThe 305, one of the IS courses, Math 351, 1 specialization course. All other courses must be complete.

j) Failure to meet the above requirements will result in not entering internship on time.

k) Students will not be permitted to take the generalist exam, if they are missing content courses.

Graduation – All students should meet with their advisor 1 semester prior to graduation to ensure that all requirements are met.

**Completion of all requirements for degree (check degree evaluation for errors)
Successful completion of JLE (see advisor)**

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment.

You are expected to conduct yourself as a responsible adult. You are expected to show respect to the instructor and to your classmates. Behavior that deviates from this model and that disrupts the educational process can result in your removal from the class.

COURSE OUTLINE / CALENDAR

DISCLAIMER: The instructor reserves the right to make changes to the schedule of the class. Any alterations will be announced by the instructor in the class, on ecollege, or via email. Students who do not attend class, log onto ecollege, or check their email assume full responsibility for missing changes to the course.

Date(s)	Activities	Assignments for next class session	Student Outcomes Addressed
8/28-29	Course intro.; Video segment on Project WILD; Video segment on Inquiry Learning; WILD activity: Habitat Lap Sit LAB - Measurement	Read pp. 123-141 in <i>Reviewing Science</i>; complete review sections.	1, 2, 4
9/4-5	TExES Prep Test #1 Go over review sections Discuss Force & Motion; watch demonstrations LAB: Sheep in a Jeep*	Go back over the reading assignment above; concentrate on Newton's Laws of Motion	1, 2, 3, 4
9/11-12	TExES Prep Test #2 Inquiry LABS: What Factors Affect the Motion of a Pendulum?; Alka-Seltzer Rocket Launch	Read pp. 51-52 and p. 58 in Project WILD Manual Study for EXAM #1	1,2,3,4

9/18-19	Project WILD activities: Beautiful Basics and Wildlife is Everywhere (partly outside); take EXAM #1 after turning in lab reports.	Read Ch. 1, pp. 27-60 in <i>Reviewing Science</i> ; complete review sections	1,2,3,4
9/25-26	TEGES Prep Test #3 Go over review sections Introduction to Chemistry and the Periodic Table LABS: States of Matter and Acids, Bases, & Indicators	Review the sections of Ch. 1 on physical and chemical changes.	1,2,3,4
10/2-3	Review Physical and Chemical Changes. LAB: Pancakes, Pancakes*	Read pp. 210-212 and pp. 326-329 in Project WILD Manual.	1,2,3,4
10/9-10	TEGES Prep Test #5 Project WILD activities: What You Wear is What They Were (inside) and Hazardous Links, Possible Solutions (outside and inside)	Read Ch. 8, pp. 221-242 in <i>Reviewing Science</i> ; complete review sections Read pp. 9-11 and pp. 23-27 in Project WILD Manual.	1,2,3,4
10/16-17	TEGES Prep Test #6 Go over review sections Project WILD activities: Classroom Carrying Capacity (inside) and How Many Bears Can Live in This Forest?(outside and inside)	Read Ch. 5, pp. 152-174 in <i>Reviewing Science</i> ; complete review sections. Study for EXAM #2	1,2,3,4
10/23-24	Go over review sections "Expedition" to the Navarro College Pond (dress for outside); LAB: Magnifying Nature; take EXAM #2 after turning in Lab Report	Read pp 243-263 from Ch. 9 in <i>Reviewing Science</i> ; complete review sections.	1,2,3,4
10/30-31	TEGES Prep Test #7 Go over review sections Discuss Minerals/Rocks and their physical & chemical properties LAB: Mineral & Rock Identification	Read pp. 264-271 from Ch. 9 in <i>Reviewing Science</i> ; complete review sections.	1,2,3,4
11/6-7	TEGES Prep Test #8 Go over review sections; review maps. LAB: Working with Topographic Maps	Read pp. 36-40 and pp. 30-33 in Project WILD Manual.	1,2,3,4
11/13-14	TEGES Prep Test #9 Project WILD activities: Oh Deer! (outside and inside) and Tracks!(inside) **BEGIN MOON JOURNAL**	Read Ch. 10, pp. 272-294 in <i>Reviewing Science</i> ; complete review sections Study for Exam #3	1,2,3,4

11/20**	Go over review sections; discuss physical processes of the Earth LAB: Evolution and Plate Tectonics Take Exam #3	Review Symbiosis section of Ch. 8, pp. 232-233 in <i>Reviewing Science</i>.	1,2,3,4
11/27-28	TEXES Prep Test #10 LAB: Close Encounters of the Symbiotic Kind – Investigating Plant Galls.*	Read handout material on Introduced/Invasive Species	1,2,3,4
12/4-5	Discuss Introduced/Invasive Species; LAB: An Introduced Species – The Red Imported Fire Ant	STUDY FOR FINAL EXAM	1,2,3,4
12/11-12	**TURN IN MOON JOURNAL** FINAL EXAM (Comprehensive)	N/A	N/A

*Activities from Picture Perfect Science Lessons books.

**Navarro College will be closed on Wednesday, November 21, for the Thanksgiving Holiday. The Wednesday class will do a modified version of the Plate Tectonics Lab along with the scheduled Symbiosis Lab on Wednesday, November 28.