IS352.710 Science Inquiry
COURSE SYLLABUS: FALL 2012

Instructor: Melinda Ludwig
Office Location: N/A
Office Hours: N/A
Office Phone: N/A
Office Fax: N/A
University Email Address: Melinda.Ludwig@tamuc.edu
*See alternate e-mail address in Communication and Support section, page 2.*

COURSE INFORMATION

Materials – Textbooks, Readings, Supplementary Readings:

Project WILD – Aquatic Manual

Additional materials: pencils, map colors, rigid metric ruler, scissors, calculator.

Course Description:

Science Inquiry is a course with minimal lecture. The bulk of the course consists of a variety of hands-on, inquiry science activities that target science instruction 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 in preparation 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 day you will participate with members of your group in completing a selection of 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.)
Lab Reports (average of all lab grades, most will be group lab reports)……………………30%
Three Major Exams (each one worth 10%)…………………………………………………………………………………………30%
TExES Review Quizzes (10 quizzes, each worth 10 points)……………………………………10%
FINAL EXAM (Monday, July 2 – 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 student’s behavior to the Teacher Certification Office and/or 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 (Summer only)

Beginning on June 6, 2012 and ending on June 27, 2012, there will be a test covering the material from the previous class meeting at the beginning of each class.

The test will include both subject material from text/notes and material from lab activities. Format of the test can vary, but most likely will include both an objective section (or sections) and several short answer/discussion items.

Time limit for each test will not exceed 45 minutes, after which the day’s assignments will begin.

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 for the course.

You are expected to attend each class meeting and to arrive on time. Late arrival may result in a 5 point deduction from your class participation grade.

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

IF YOU MISS A MAJOR EXAM AND HAVE A DOCUMENTED, LEGITIMATE REASON, YOU MUST CONSULT THE INSTRUCTOR TO AGREE ON A DATE AND TIME TO MAKE UP THE EXAM. THE INSTRUCTOR WILL DECIDE IF YOUR REASON IS LEGITIMATE. ALL MAKE-UP EXAMS ARE IN ESSAY FORMAT.

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.
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. NO TEXTING.** YOU MAY BE ASKED TO LEAVE THE CLASS FOR THE DURATION OF THE SESSION, IF YOU WILL NOT ABIDE BY THIS REQUEST. **YOU WILL NOT RECEIVE CREDIT FOR ANY ACTIVITY THAT YOU MISS.**
7. **You may not bring your children to class.** There are liability and safety issues that must be respected.

**NOTE: THE INSTRUCTOR RESERVES THE RIGHT TO MODIFY ANY COURSE-SPECIFIC POLICY/PROCEDURE IF EXTRAORDINARY CIRCUMSTANCES EXIST, AND THE INSTRUCTOR WILL DETERMINE THE DEFINITION OF “extraordinary”.**

**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
Gee Library 132
Phone (903) 886-5150 or (903) 886-5835
Fax (903) 468-8148
StudentDisabilityServices@tamu-commerce.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, IS 351 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.

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**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 class, on ecollege, or via email. Students who do not attend class, log into ecollege, or check their email assume full responsibility for missing changes to the course.

<table>
<thead>
<tr>
<th>Date(s)</th>
<th>Activities</th>
<th>Assignments for next class session</th>
<th>Student Outcomes Addressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>8/27</td>
<td>Intro to course; LABS: 1. Observation vs. Inference; 2. Aqua Words in WILD-Aquatic Manual, pp. 29-30</td>
<td>Read Handouts; read pp. 186-191 in <em>Reviewing Science</em></td>
<td>1, 2, 4</td>
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<tr>
<td>9/10</td>
<td>TExES Quiz #1 LABS: DNA Isolation; Inheritance Patterns in Humans Begin “Rice” investigation</td>
<td>Read pp. 192-193 in <em>Reviewing Science</em></td>
<td>1,2,3,4</td>
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<tr>
<td>Date</td>
<td>Task</td>
<td>Details</td>
<td>Page Ranges &amp; Reading</td>
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<td>9/17</td>
<td>TExES Quiz #2</td>
<td>Check “Rice” experiment</td>
<td>Read pp. 203-204 in Reviewing Science</td>
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<td>LAB: 1. Mrs. Potato Head Genetics</td>
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<tr>
<td>9/24</td>
<td>TExES Quiz #3</td>
<td>Check “Rice” experiment</td>
<td>Read pp. 203-204 in Reviewing Science</td>
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<td>LAB: Investigating the Senses</td>
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<td>STUDY FOR EXAM #1</td>
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<td>10/1</td>
<td>Video: How Does Evolution Work?</td>
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<td>Read pp. 118-120 and pp. 140-144 in WILD-Aquatic Manual</td>
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<td>LAB: Bird Beaks &amp; Natural Selection</td>
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<td>TAKE EXAM #1</td>
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<td>10/8</td>
<td>TExES Quiz #4</td>
<td>Check “Rice” experiment</td>
<td>Read handouts on enzymes and lactose intolerance</td>
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<td>LABS: Riparian Retreat and What’s in the Water?; water quality testing with Pond Water Tour Kit.</td>
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<td>NOTE: We will go to the campus pond, so dress for outside.</td>
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<td>10/15</td>
<td>TExES Quiz #5</td>
<td>Check “Rice” experiment</td>
<td>Read Ch. 8, pp 221-242 in Reviewing Science; read pp. 2-3 and pp. 34-37 in WILD-Aquatic Manual. Begin “Moon Journal” Bring plastic recyclables to class.</td>
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<td>LAB: Milk Makes Me Sick</td>
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<td>10/22</td>
<td>TExES Quiz #6</td>
<td>Finish “Rice” experiment and complete data booklet</td>
<td>Read pp. 128-131 and pp. 172-176 in WILD-Aquatic Manual</td>
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<td>LABS: Are You Me?</td>
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<td>STUDY FOR EXAM #2 <strong>Bring plastic recyclables to class.</strong></td>
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<td>Marsh Munchers</td>
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<td>10/29</td>
<td>Discuss effects of plastics on wildlife; discuss ecological topics from Ch. 8</td>
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<td>Read Handouts</td>
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<td>LABS: 1. Turtle Hurdles (outside)</td>
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<td>Read pp. 226-234 in Reviewing Science (again)</td>
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<td>2. Plastic Jellyfish (inside)</td>
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<td>TAKE EXAM #2</td>
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<td>11/5</td>
<td>TExES Quiz #7</td>
<td>Discuss Food Chains, Food Webs, Nutritional Roles in Nature</td>
<td>Read handouts</td>
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<td>11/12</td>
<td>LAB: Who Eats Whom – Owl Pellet Dissection</td>
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| 11/12 | TExES Quiz #8 | Discuss Earthworms  
LAB: Wiggling Worms  
Read pp. 272-279 in *Reviewing Science*.  
Turn in “Moon Journal” |
| 11/19 | TExES Quiz #9 | Discuss weathering and erosion  
LAB: Stream Table Investigations  
Read pp. 257-263 in *Reviewing Science* |
| 11/26 | TExES Quiz #10 | Discuss Paleontology, Fossils, and Radioactive Dating  
LABS:  
1. Investigating Geologic Time and Fossil Formation  
2. Dating the Past  
Read Ch. 2, pp. 61-100 in *Reviewing Science*.  
STUDY FOR EXAM #3 |
| 12/3 | Discuss Energy and its various forms | Rotation LAB: Forms of Energy  
Study for Final Exam |
| 12/10 | TAKE FINAL EXAM (COMPREHENSIVE) |  
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