

# SCIENCE INQUIRY II - INTEGRATED SCIENCE 352.401 SYLLABUS Tuesdays 5:00-7:40 pm;

**TAMU-Commerce Mesquite** 

Campus Instructor: Karin Busby, MAT, MEd

Karin.busby@tamuc.edu Phone 214-435-5494 Fall 2018

Office Hours: M & T 7:40-8:40

#### **COURSE INFORMATION**

**Optional Text:** IS 352 Book of Activities, (Available at the campus bookstore)

Course Description: Inquiry: Knowledge and Skills of Science

Science topics and themes are chosen to emphasize broad concepts highlighted in the Texas and National Science Standards. This course is intended as a continuation of IS 351. Topics will include properties of matter, periodic table and atomic structure, balancing equations, reactions, teaching methods, and learning styles in the classroom. The course will be taught using an inquiry/discovery based format, modeling instructional techniques proven effective by current educational research.

#### **COURSE REQUIREMENTS**

**Course Goals**: To provide a preliminary overview of science content and laboratory skills that will help prepare pre-service elementary teachers to teach science concepts as inquiry. Topics are correlated with Texas Essential Knowledge and Skills (TEKS) objectives, and with elementary science teacher competencies that will provide preparation to pass the science section on the certification exam.

#### **Course Requirements:**

Lecture and reading will be used to introduce and discuss topics. Students are encouraged to ask questions during lecture and through online discussions.

**Grading Scale**: (100-90% = A; 89-80% = B; 79-70% = C; etc.)

| Exams (2 each worth 20%)                      | 40% |
|---|-----|
| Notebook (1 worth 25%)                        | 25% |
| Lab Reports (10 each worth 2%)                | 20% |
| Notebook Checks (4 each worth 2%)             | 8%  |
| Attendance/Participation (14 each worth 0.5%) | 7%  |

In order to pass the course, you must achieve a 60 or higher on at least one exam (first exam, second exam, or final) and complete the Notebook, regardless of your average calculated using the above weighting.

- Exams: There will be two midterms and an optional final. They will be weighted equally with the Final able to replace one of the previous exam grades. \*In order to be able to replace an exam grade, both midterms must be completed on time and in their entirety. \* Make-up exams will only be allowed for excused absences. See course policies below for details on excused absences. Midterms are tentatively scheduled in the course outline, but will be confirmed two weeks in advance of the exam.
- Notebook: Guidelines for the notebook will be provided in a separate document. The notebook must be completed in order to pass the course. A notebook check will be required for each Monday of the course. This is to ensure that you are progressing through the material at an appropriate rate.
- Lab Reports: Lab reports will be done individually and/ or in groups and will be due at the end of each class unless otherwise stated. Labs will not be made up, the lowest lab grade will be dropped, and all other missed labs will be zeros.
- Attendance and Class participation: You will receive a participation grade for each class day based on your participation in group activities. The lowest three grades will be dropped. Attendance will be taken by means of a sign in sheet each class meeting. Missing three classes could be grounds for removal from class.

### Participation grade calculation:

- 1. All absences will result in a zero. Excused absences will be dropped before calculation of your average.
- 2. Cell phone or electronic devise use will result in a 10-point deduction
- 3. Missing 15- 35 minutes will result in a 20-point deduction. Missing more than 35 minutes will result in a 50-point deduction. This includes tardiness, leaving early before finishing all activities, or missing a portion of the middle of class.
- 4. Not fully participating in class activities results in a 20-point deduction. You will receive a written warning the first three times during the semester before a point deduction will be assigned.

#### COURSE AND UNIVERSITY PROCEDURES/POLICIES

#### **Course Specific Procedures:**

- 1. Attendance will be taken by means of a sign in sheet each class meeting. Missing three classes could be grounds for removal from class.
- 2. Prior notification and medical documentation may provide an excused second absence at the discretion of the instructor. At home lab reports and projects are due on the date listed, if you are absent your assignment is still due on that date. Exams may be rescheduled if the instructor is notified prior to the date, the absence can be documented as a medical emergency, and a convenient time to take the exam can be determined by the instructor.
- 3. Laboratory Safety dictates that NO food or drinks are allowed in the lab room. As you enter the lab room please remember to mute or turn off all cell phones/pagers or any electronic device that could disrupt the class.. Any electronic device that disrupts exams

- will be cause for stopping the exam for the class. For a complete listing of TAMU-Commerce Procedures go to: www.tamucommerce.edu/administration/
- 4. The instructor must be notified by email about any excused absences no later than 24 hours after the missed class. Email is required in order to drop the zero on participation or missed exam.
- 5. Students are expected to be professional and respectful and take responsibility for their learning. If you find yourself struggling, the instructor is available to provide extra help outside of class.

#### **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
Student Disability Services @tamuscommerce add

<u>StudentDisabilityServices@tamu-commerce.edu</u> Student Disability Resources & Services

Nondiscrimination Notice: A&M-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations.

For a list of locations, please refer to

(http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployees AndStudents/34.06.02.R1.pdf) and/or consult your event organizer). Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

### Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. (See *Code of Student Conduct from Student Guide Handbook*).

### Plagiarism

Plagiarism is a criminal activity. You must cite all sources of information. Unreferenced copying of material can result in a score of zero for your assignments and may result in further disciplinary action.

### **Unit 1: Teaching and Learning Methods (8/28-9/4)**

8/28: Syllabus, Notebooks, How is teaching Science Different than other subjects? 9/4: Teaching the Diverse Science Student, the 5E Method and Proper Assessment

### Unit 2: Properties of Matter (9/11- 9/25)

9/11: States of Matter, Pressure, and Energy

## 9/11: Notebook Check 1 (Unit Calendar and Unit Assessments\*)

9/18: Compounds, Solutions, and Mixtures and Physical Properties of Matter

9/25: Chemical Properties of Matter and Properties vs Change

### Unit 3: Atomic Structure Part 1 (10/2-11/9)

10/2: The History of the Atom, the Parts of the Atom

10/9: Atomic Structure and the Periodic Cube

#### 10/16: MIDTERM 1

### **Unit 3: Atomic Structure Part 2 (10/23-10/30)**

10/23: The Electron

## 10/23: Notebook Check 2 (Unit Calendar and Unit Assessments Graded/ 1st 5E)

10/30: The Periodic Table Revisited and Lewis Dots

### **Unit 4: Bonding and Balancing Equations (11/6-11/13)**

11/6: Electronegativity and Ionic/Covalent Bonding

# 11/6: Notebook Check 3 (1st 5 E Graded / 2-4 5Es Due)

11/13: Balancing Equations and the Law of Conservation of Mass

### 11/20: Midterm 2

#### **Unit 5: Chemical Reactions (11/27-12/4)**

11/27: Chemical Reactions and the 6 types

## 11/27: Notebook Check 4 (Complete 5E Lesson Graded / Objectives and Exemplars)

12/4: Acids/ Bases

### 12/12: Optional Final Exam and Notebook Due

"This document contains information which may be changed at the discretion of the instructor."