



## SCIENCE INQUIRY I - INTEGRATED SCIENCE 351.401

SYLLABUS Monday: 5:00-7:40 pm;

TAMU-Commerce Mesquite

Campus Instructor: Karin Busby, MAT, MEd

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### COURSE INFORMATION

**Optional Text:** IS 351 B Book of activities- 351 B ISBN: 978-1-61740-642-3, (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. Topics will include conservation laws, systems in nature, the nature of scientific inquiry, and presentation of scientific information. 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

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.

Discussions: Online discussions are due on Monday by 11:59 pm. All discussions are weighted equally.

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 device 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.tamuccommerce.edu/administration/](http://www.tamuccommerce.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**

[StudentDisabilityServices@tamuc-commerce.edu](mailto:StudentDisabilityServices@tamuc-commerce.edu)

[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/34SafetyOfEmployeesAndStudents/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.

8/27: Welcome!- Syllabus check and dates **Nature of Science Scientific Theory and Processes, teaching/learning methods**

9/3 No School (Labor Day)

9/10 – 10/8 **Kinematics, force, motion, and Free Body Diagram**

1. **Motion defined and Newton's 1<sup>st</sup> Law of Motion**
2. **Newton's 2<sup>nd</sup> Law of Motion ( $F=ma$ ) and Acceleration ( $a=\Delta v$ )**
3. **Motion Graphs and Kinematic Stacks**
4. **Newton's 3<sup>rd</sup> Law of Motion ( $p=mv$  and  $j=m\Delta v=F\Delta t$ )**
5. **Free Body Diagrams and calculations of acceleration**

10/8- **Notebook Check 1 (Engage\* and Evaluate\*)**

10/15 **Midterm 1**

10/22 – 11/5 **Energy, waves, light, and Heat**

1. **Energy defined, types of Energy**
2. **Heat and Heat transfer**
3. **Waves (Sound and Light)**
4. **Electromagnetic Energy**

10/29 **Notebook Check 2 (Engage and Evaluate Graded/ Explain\*)**

11/12 **Midterm 2**

11/12 **Notebook Check 3 (Engage, Explain, Evaluate Graded/ Explore & Elaborate\*)**

11/19 – 12/3

1. **Electricity (Static vs Current)**
2. **Circuits (Series and Parallel)**
3. **Circuits (Combined Circuits)**

11/26 **Notebook Check 4 (Engage, Explore, Explain, Elaborate, Evaluate Graded / Exemplar & Learning Objectives\*)**

12/10 **Optional Final Exam: Students who wish to take the final exam must inform the professor no later than one week prior to the exam date.**

12/10 **NOTEBOOK DUE IN CLASS**

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