



SCIENCE INQUIRY I - INTEGRATED SCIENCE 351.401 SYLLABUS
TAMU-Online

Campus Instructor: Karin Busby, MAT, MEd

Karin.busby@tamuc.edu

Phone (214) 531-4803

Fall 2020

karinbusby@gmail.com

Office Hours by Appointment (Virtual)

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%
Final Notebook (1 worth 25%)	25%
Lab Reports (10 each worth 2%; 2 lowest drop)	20%
Notebook Checks (4 each worth 2%)	8%
Discussion Boards (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. Labs will not be made up, the two lowest lab grades will be dropped, and all other missed labs will be zeros.

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

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/
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.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/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.

Course Calendar

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

Topics	Due Dates
Unit 1 Nature of Science and Teaching 8/24-8/28	
Topic 1- Welcome and Syllabus Explanation Topic 2- Nature of Science, Scientific Theory, and Process Topic 3- The 5E Lesson	Discussion Boards Board 1- Original Post 8/25; Replies 8/27
Unit 2 Kinematics 8/31-10/1	Discussion Boards Board 2- Original Post 9/2; Replies 9/3 Board 3- Original Post 9/9; Replies 9/10 Board 4- Original Post 9/16; Replies 9/17 Board 5- Original Post 9/23; Replies 9/24 Board 6- Original Post 9/30; Replies 10/1
Topic 1- Motion defined Topic 2- Newton’s 1 st Law of Motion Topic 3- Newton’s 2 nd Law of Motion ($F=ma$) Topic 4- Acceleration ($a=\Delta v$) Topic 5- Motion Graphs Topic 6- Kinematic Stacks Topic 7- Newton’s 3 rd Law of Motion ($p=mv$ and $j=m\Delta v=F\Delta t$) Topic 8- Free Body Diagrams and calculations of acceleration	Labs Lab 1- Due 9/4 Lab 2- Due 9/11 Lab 3- Due 9/18 Lab 4- Due 9/25 Lab 5- Due 10/2
	Notebook Checks NC 1- Due 9/12 NC 2- Due 10/3
	Midterm 1 (U1 and U2)- Due 10/9
Unit 3 Energy 10/12-10/23	Discussion Boards Board 7- Original Post 10/13; Replies 10/15 Board 8- Original Post 10/20; Replies 10/22
Topic 1- Energy Defined Topic 2- Types of Energy Topic 3- Heat and Heat transfer	Labs Lab 6- Due 10/16 Lab 7- Due 10/24
Unit 4 Waves 10/26-11/6	Discussion Boards Board 9- Original Post 10/27; Replies 10/29 Board 10- Original Post 11/3; Replies 11/5
Topic 1- Mechanical Waves Topic 2- Electromagnetic Waves Topic 3- Wave Behavior	Labs Lab 8- Due 11/6
	Notebook Checks NC 3- Due 10/31
	Midterm 2 (U3 and U4)- Due 11/13

Course Calendar

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

Topics	Due Dates
Unit 5 Electricity 11/16-12/4 Topic 1- Static Electricity Topic 2- Circuit Defined Topic 3- Ohms Law Topic 4- Series, Parallel and Combination Circuits	Discussion Boards Board 11- Original Post 11/17; Replies 11/19 Board 12- Original Post 12/1; Replies 12/3
	Labs Lab 9- Due 11/20 Lab 10- Due 12/4
	Notebook Checks NC 4- Due 11/21
	Final Notebook- Due 12/4
	Optional Final Exam (U1-U5)- Due 12/10