



To access COVID-19 information, please visit the [Stay Healthy Lions Webpage](#).

IS 1315, May 2022, Integrated Science
COURSE SYLLABUS: May 2022

INSTRUCTOR INFORMATION

Instructor: Carissa Manrique, PhD | Adjunct Professor
Office Location: Online
Office Hours: Email or Telephone or Virtual by Appointment
Office Phone: 832-344-7441
University Email Address: Carissa.Manrique@tamuc.edu
Preferred Form of Communication: Email
Communication Response Time: I check email every 24 hours

COURSE INFORMATION

Materials

[Good news: your textbook for this class is available for free online! If you prefer, you can also get a print version at a very low cost.

Your book is available in web view and PDF for free. You can also choose to purchase on iBooks or get a print version via OpenStax on Amazon.com.

You can use whichever format you prefer. Web view is recommended -- the responsive design works seamlessly on any device. If you buy on Amazon, make sure you use the link on your book page on openstax.org ("Order a print copy") so you get the official OpenStax print version. (Simple printouts sold by third parties on Amazon are not verifiable and not as high-quality.)

Supplemental Materials

<https://openstax.org/details/books/biology-2e>

Print ISBN 1938168097, Digital ISBN 1947172026

<https://openstax.org/details/books/astronomy>

Print ISBN 1938168283, Digital ISBN 1947172247

<https://openstax.org/details/books/chemistry>

Print ISBN 1938168399, Digital ISBN 1947172093

<https://openstax.org/details/books/introductory-statistics>

Print ISBN 1938168208, Digital ISBN 1947172050

Links and files will be provided in the document sharing tab within the course.

COURSE DESCRIPTION

Integrated Science is a General Education, Life and Physical Science requirement of the Organizational Leadership Degree Program. Scientific principles developed in the course include Applied Sciences, Chemistry, Physics and physical sciences. Students will explore the integration of these science disciplines, learn about the fundamental basics of chemistry and how it applies to the sciences, and how physics serves as the basis for the other science disciplines. Students will also be introduced to the scientific method, basic statistics, and the fundamental unit of all living things: the cell.

STUDENT LEARNING OUTCOMES

Completion of this course provides the student with the knowledge to:

Competency 1 (Applied Sciences):

1. Students should understand the broad application of the science disciplines and be able to apply Science to their daily lives.
2. Students will be able to explain and apply the Scientific Method while also being able to interpret results of scientific investigations and draw reasonable conclusions from data they are presented with.
3. Students will consider the characteristics that constitute life and understand the levels of organization at the biological level.
4. Students will be introduced to basic statistics and look at size and scale with the intent of putting things into perspective and drawing logical conclusions from statistical data when analyzing the data from scientific research.

Competency 2 (Physics):

1. Students will demonstrate the ability to think critically and to use appropriate concepts to analyze both quantitative and qualitative problems which entail fundamental principles of basic physics.
2. Students will demonstrate knowledge of classical mechanics by learning and applying Newton's Laws of Motions.
3. Students will demonstrate knowledge of fluid dynamics by explaining and applying principles of fluid mechanics and Bernoulli's principle.
4. Students will learn to comprehend thermodynamics and apply those principles accordingly to real life scenarios.
5. Students will understand basic circuitry, the nature of electrical charges, and apply it to their daily lives.

Competency 3 (Chemistry)

1. Students will be introduced to the general principles, laws and theories of Chemistry.
2. Students will be able to differentiate between elements and mixtures, homogeneous and heterogeneous mixtures, and chemical and physical changes.
3. Students will be introduced to the Periodic Table and understand its parts, purpose and organization.
4. Students will be able to apply learned chemistry skills to their everyday lives.

Regular and Substantive Course Interaction

As a general guide, students enrolled in a three semester hour course should spend one hour engaged in instructional activities and two to three hours on out-of-class work per week in a traditional semester. Students are expected to double this effort of engagement given that this course is being delivered in a seven-week term. Educational activities in this course are designed to ensure regular and substantive interaction between students and faculty to ensure that students are able to demonstrate competency

COURSE REQUIREMENTS

Minimal Technical Skills Needed: Students will need reliable computer and internet access for this course. Students must be able to effectively use myLeo email, myLeo Online D2L, and Microsoft Office.

Instructional Methods: This course is an online course. To be successful in this course, all content and course modules should be read and reviewed. All assignments and quizzes (both graded and not graded) must be completed. Please contact the instructor by email for any assistance.

Email your instructor as soon as you complete your pre-test so the instructor can access and grade your work. This course is 100% online. As such, communication and assignment submission is all done electronically. Please do not ask the instructor to call you.

Power points, resources, assignments and tests are all located within the online course. Should you have trouble finding anything, please e-mail the instructor to point you in the right direction. While not all discussions and assignments are required, students are encouraged to participate in all activities. There are optional YouTube Videos associated with all reading assignments. These are intended to assist visual learners in comprehension. Should you find yourself struggling with assignments in the course, please watch videos and complete all reading before e-mailing the instructor to ask for further assistance in comprehending certain subject matter. It is unacceptable to not participate in assignments/discussions etc. and then claim the material was too difficult to comprehend. Your participation will directly affect your success in the course. The more hours you spend in the course utilizing provided resources, the more likely you are to succeed in the course.

Student Responsibilities or Tips for Success in the Course: To be successful in this course, all content and course modules should be read and reviewed. All assignments and quizzes (both graded and not graded) should be completed. Please contact the instructor by email for any assistance.

Students are encouraged to log-in to the course every 24 hours. While not required, students are encouraged to complete an entire competency every 2 weeks. This means by week 6 of the 7-week semester, they have attempted to test out of all 3 competencies. This allows the student sufficient time to re-do any failed competency posttests.

Students are encouraged to e-mail the professor as they encounter concepts that after reading and utilizing course resources (supplemental documents, Youtube videos, etc.), still do not understand. Students are encouraged to engage other classmates in discussions or thoughts that pertain to course material. Regular participation and engagement ensures the best chance at successful completion of the course.

GRADING

Final grades in this course will be based on the following scale:

A = 90%-100%

B = 80%-89%

F = 79% or below

***Organizational Leadership Students are required to test out of EACH Competency with a grade of 80% or higher. This is NOT a cumulative average amongst the 3 competencies, but an individual grade of 80% or higher for EACH of the three Competencies.**

Assessments

Competency	Reading	Pre-test	Post-test	Assignment/ Discussion
Applied Science	Recommended	Required	Required*	Required*
Physics	Recommended	Required	Required*	Recommended
Chemistry	Recommended	Required	Required*	Recommended

***included in student's final grade**

The student's final grade will be comprised of 3 post test scores from each of the 3 competencies and the discussion, listed in your menu bar beneath the 3 Competencies. Students should participate in the discussion within the first 3 weeks of the course.

- A = 180-200 points
- B = 160-179 points
- F – 159 or fewer points

TECHNOLOGY REQUIREMENTS

LMS

All course sections offered by Texas A&M University-Commerce have a corresponding course shell in the myLeo Online Learning Management System (LMS). Below are the technical requirements

Learning Management System (LMS) Requirements:
View the [Learning Management System Requirements Webpage](#).

LMS Browser Support:
Learn more on the [LMS Browser Support Webpage](#).

YouSeeU Virtual Classroom Requirements:
Visit the [Virtual Classroom Requirements Webpage](#).

Browser support

D2L is committed to performing key application testing when new browser versions are released. New
The syllabus/schedule are subject to change.

and updated functionality is also tested against the latest version of supported browsers. However, due to the frequency of some browser releases, D2L cannot guarantee that each browser version will perform as expected. If you encounter any issues with any of the browser versions listed in the tables below, contact D2L Support, who will determine the best course of action for resolution. Reported issues are prioritized by supported browsers and then maintenance browsers.

Supported browsers are the latest or most recent browser versions that are tested against new versions of D2L products. Customers can report problems and receive support for issues. For an optimal experience, D2L recommends using supported browsers with D2L products.

Maintenance browsers are older browser versions that are not tested extensively against new versions of D2L products. Customers can still report problems and receive support for critical issues; however, D2L does not guarantee all issues will be addressed. A maintenance browser becomes officially unsupported after one year.

Note the following:

- Ensure that your browser has JavaScript and Cookies enabled.
- For desktop systems, you must have Adobe Flash Player 10.1 or greater.
- The Brightspace Support features are now optimized for production environments when using the Google Chrome browser, Apple Safari browser, Microsoft Edge browser, Microsoft Internet Explorer browser, and Mozilla Firefox browsers.

Desktop Support

Browser	Supported Browser Version(s)	Maintenance Browser Version(s)
Microsoft® Edge	Latest	N/A
Microsoft® Internet Explorer®	N/A	11
Mozilla® Firefox®	Latest, ESR	N/A
Google® Chrome™	Latest	N/A
Apple® Safari®	Latest	N/A

Tablet and Mobile Support

Device	Operating System	Browser	Supported Browser Version(s)
Android™	Android 4.4+	Chrome	Latest
Apple	iOS®	Safari, Chrome	The current major version of iOS (the latest minor or point release of that major version) and the previous major version of iOS (the latest minor or point release of that major version). For example, as of June 7, 2017, D2L supports iOS 10.3.2 and iOS 9.3.5, but not iOS 10.2.1, 9.0.2, or any other version. Chrome: Latest version for the iOS browser.
Windows	Windows 10	Edge, Chrome, Firefox	Latest of all browsers, and Firefox ESR.

- You will need regular access to a computer with a broadband Internet connection. The minimum computer requirements are:
 - 512 MB of RAM, 1 GB or more preferred
 - Broadband connection required courses are heavily video intensive
 - Video display capable of high-color 16-bit display 1024 x 768 or higher resolution
- You must have a:
 - Sound card, which is usually integrated into your desktop or laptop computer
 - Speakers or headphones.
 - For courses utilizing video-conferencing tools and/or an online proctoring solution, a webcam and microphone are required.
- Both versions of Java (32 bit and 64 bit) must be installed and up to date on your machine. At a minimum Java 7, update 51, is required to support the learning management system. The most current version of Java can be downloaded at:
JAVA web site <http://www.java.com/en/download/manual.jsp>
- Current anti-virus software must be installed and kept up to date.

Running the browser check will ensure your internet browser is supported.

Pop-ups are allowed. JavaScript
is enabled. Cookies are enabled.

- You will need some additional free software (plug-ins) for enhanced web browsing. Ensure that you

download the free versions of the following software:

- Adobe Reader <https://get.adobe.com/reader/>
- Adobe Flash Player (*version 17 or later*)
<https://get.adobe.com/flashplayer/>
- Adobe Shockwave Player <https://get.adobe.com/shockwave/>
- Apple Quick Time <http://www.apple.com/quicktime/download/>

• At a minimum, you must have Microsoft Office 2013, 2010, 2007 or Open Office. Microsoft Office is the standard office productivity software utilized by faculty, students, and staff. Microsoft Word is the standard word processing software, Microsoft Excel is the standard spreadsheet software, and Microsoft PowerPoint is the standard presentation software. Copying and pasting, along with attaching/uploading documents for assignment submission, will also be required. If you do not have Microsoft Office, you can check with the bookstore to see if they have any student copies.

ACCESS AND NAVIGATION

You will need your campus-wide ID (CWID) and password to log into the course. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or helpdesk@tamuc.edu.

Note: Personal computer and internet connection problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, Starbucks, a TAMUC campus open computer lab, etc.

COMMUNICATION AND SUPPORT

If you have any questions or are having difficulties with the course material, please contact your Instructor.

Technical Support

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778. Other support options can be found on the [Brightspace Support Webpage](#).

Interaction with Instructor Statement

This is an online course; therefore, expect most communication to be online as well. Correspondence will always be through university email (your "myLeo" mail) and announcements in myLeo online (D2L). The instructor will make every effort to respond to emails within 24 provided the correspondence follows the requirements listed below. Students are encouraged to check university email daily.

All emails from students should include:

- **Course name and subject in the subject line (ex. ORGL 3322 – Posttest)**
- **Salutation**
- **Proper email etiquette (no "text" emails – use proper grammar and punctuation)**
- **Student name and CWID after the body of the email**

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Syllabus Change Policy

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail online in the [Student Guidebook](#).

Students should also consult the [Rules of Netiquette Webpage](#) for more information regarding how to interact with students in an online forum.

TAMUC Attendance

For more information about the attendance policy, please view the [Attendance Webpage](#) and the [Class Attendance Policy](#)

Academic Integrity

Students at Texas A&M University-Commerce are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the following procedures:

[Undergraduate Academic Dishonesty Policy](#)
[Undergraduate Student Academic Dishonesty Form](#)

Students with Disabilities-- 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
Velma K. Waters Library Rm 162
Phone (903) 886-5150 or (903) 886-5835
Fax (903) 468-8148
Email: studentdisabilityservices@tamuc.edu
Website: [Office of Student Disability Resources and Services](#)

Nondiscrimination Notice

Texas A&M University-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.

Campus Concealed Carry Statement

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 the [Carrying Concealed Handguns On Campus](#) document 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.

Counseling Services

The Counseling Center at A&M-Commerce, located in the Halladay Building, Room 203, offers counseling services, educational programming, and connection to community resources for students. Students have 24/7 access to the Counseling Center’s crisis assessment services by calling 903-886-5145. For more information regarding Counseling Center events and confidential services, please visit <http://www.tamuc.edu/counsel>.

COURSE OUTLINE / CALENDAR

Learning Objectives and Competencies	Materials to Read or Review	Assignments
<p>LO1: Applied Sciences</p> <ul style="list-style-type: none"> ● Students should understand the broad application of the science disciplines and be able to apply Science to their daily lives. ● Students will be able to explain and apply the Scientific Method while also being able to interpret results of scientific investigations and draw reasonable conclusions from data they are presented with. ● Students will consider the characteristics that constitute life and understand the levels of organization at the biological level. ● Students will be introduced to basic statistics and look at size and scale with the 		<p>Read the material for the week. Answer any discussion questions. Complete the module quiz.</p>

Learning Objectives and Competencies	Materials to Read or Review	Assignments
<p>intent of putting things into perspective and drawing logical conclusions from statistical data when analyzing the data from scientific research.</p>		
<ul style="list-style-type: none"> • LO2: Physics • Students will demonstrate the ability to think critically and to use appropriate concepts to analyze both quantitative and qualitative problems which entail fundamental principles of basic physics. • Students will demonstrate knowledge of classical mechanics by learning and applying Newton's Laws of Motions. • Students will demonstrate knowledge of fluid dynamics by explaining and applying principles of fluid mechanics and Bernoulli's principle. • Students will learn to 		<p>Read the material for the week. Answer any discussion questions. Complete the module quiz.</p>

Learning Objectives and Competencies	Materials to Read or Review	Assignments
<p>comprehend thermodynamics and apply those principles accordingly to real life scenarios.</p> <ul style="list-style-type: none"> Students will understand basic circuitry, the nature of electrical charges, and apply it to their daily lives. 		
<p>LO3: Chemistry</p> <ul style="list-style-type: none"> Students will be introduced to the general principles, laws and theories of Chemistry. Students will be able to differentiate between elements and mixtures, homogeneous and heterogeneous mixtures, and chemical and physical changes. Students will be introduced to the Periodic Table and understand its parts, purpose and organization. Students will be able to apply learned chemistry skills to their everyday lives. 		<p>Read the material for the week. Answer any discussion questions. Complete the module quiz.</p>
<p>LO4: Final Objective Demonstrate mastery of material in completion of a post-test</p>		<p>Complete the Post-test.</p>

