



EDCI 558.01W: Science Curriculum & Methods

Course Syllabus for Summer 2024

Syllabus Change Policy

According to State of Texas HB 2504, this course syllabus must be submitted for review prior to the course's scheduled start date. Therefore, the instructor has the right to modify this syllabus and course calendar at any time between submission for publication and the first day of class.

Furthermore, the instructor has the right to modify the syllabus at any time during the course itself provided that (1) such changes do not increase expectations or requirements beyond a reasonable equivalent and (2) students are given ample notification.

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.

Instructor: Dr. Becky Sinclair

Office Location: Education South #228, Commerce Campus

EDCI Office: 903-886-5537

University Email Address: Becky.Sinclair@TAMUC.edu (Answered on a regular basis, M-F 8:00-4:00 plus additional days/times. Best way to contact me. Please include your phone number in all emails to allow for calls/texts. Often, this is faster than emails in summer.)

COURSE INFORMATION

Materials Required for the course:

- *Ready, Set, Science! Putting Research to Work in K-8 Science Classrooms*; National Research Council, 2008 (Available FREE online at: <https://www.nap.edu/catalog/11882/ready-set-science-putting-research-to-work-in-k-8>)
- Texas Essential Knowledge and Skills (TEKS) - Science; found at: <http://ritter.tea.state.tx.us/rules/tac/chapter112/index.html>
- Next Generation Science Standards (& support materials); found at: <http://www.nextgenscience.org/>
- Other readings as assigned.

Course Description:

An examination of current issues and trends in science and STEM content and pedagogy with an emphasis on inquiry instruction and learning. Development and evaluation of curriculum will ascertain how changing needs in education are being addressed.

Course Goals:

To teach science content and inquiry methods in such a way that those teaching science (K-12) will feel confident, skilled and motivated to integrate inquiry science and other science-focused pedagogical strategies into the curriculum.

Student Learning Outcomes:

By the conclusion of the course, the student will demonstrate the following outcomes:

1. Refine ideas about and philosophy of teaching science
2. Develop an understanding of current practices in science teaching as outlined in state and national standards
3. Develop an understanding of current issues in science, science education and related research.
4. Increase comfort level with science teaching and learning.
5. Display a high degree of professionalism by participating in class and in all class activities.

COURSE REQUIREMENTS

Minimal Technical Skills Needed

Using the learning management system (as this is a new system, some “growing pains” are expected, so be sure and keep in contact via the course tools or email if having issues with course navigation. See **TECHNOLOGY REQUIREMENTS** below for more info on the D2L system); general computer skills including: web proficiency, Microsoft Word, PowerPoint, using presentation and graphics programs, etc.

Tips for Success in the Course

Students are expected to regularly log into the course website with assignments due regularly throughout the course. Additional details are presented in the course shell and course announcements. Assignment deadlines are presented in a Schedule of Assignments.

INSTRUCTIONAL METHODS

(Assignments/activities are subject to change in order to meet emerging student needs)

Reading Reflections

Submit reflective responses that provides your thoughts, comments and questions about the assigned readings (do not summarize the reading). Thoughtfully discuss how these concepts apply to your classroom situation and similar ideas you have seen or done in the classroom (or will try to do in your future classroom). Reflections will be submitted in the submission folder or via threaded Discussion as directed.

Assignments

Submit unit assignments such as website reviews, mini topical reflections, science teaching reflections, etc. Instructions about each will be described in D2L.

Online Discussions

Actively and thoughtfully participate in the online threaded discussions of the readings and content topics as indicated.

Student Final Project of Choice

Develop and complete a science curriculum related project that will ***directly enhance the science learning in your classroom***. A brief description of the potential project **must be submitted via email by the announced date and approved by the instructor**. Possible projects include: developing inquiry-based units of study, revising existing units into inquiry-based units, locating quality children's literature to connect with science units, etc. The format of the project to be submitted is variable and open to allow best representation of the project. Guidelines and samples will be provided in the course shell.

Note to **Doctoral Students enrolled in this class: In order to consider this course doctoral level, each assignment will be differentiated. Doctoral students are expected to be immersed in the related research literature and cite at least 3 additional sources appropriately per assignment.

GRADING

All assignments are graded based on the following criteria:

A – Exceptional – Exceeds Minimum Expectations in All Areas Addressed:
Well above average in thought, language structure, and word choice; extremely well organized; shows thorough understanding and assimilation of concepts;

excellent sense of unity; clearly and thoughtfully addresses all parts of the assignment; polished transition between concepts or thoughts; virtually free of errors.

B – Above Average – Meets Minimum Expectations in the Majority of Areas Addressed and Exceed Expectations in Some Areas. In general command of thought, sentence structure, and word choice; organized; shows some understanding of concepts; good sense of unity; clearly and thoughtfully addresses most parts of the assignment; good transition between concepts or thoughts; few if any errors.

C – Average. Adequate In some Areas and Inadequate in Others. Problems in some of the following areas: depth of thought; ability to elaborate and provide sufficient detail; sentence structure, word choice, grammar, and spelling; organized and formatted appropriately; good unity, sequence, and transitions; addresses most parts of the assignment, but level of thought below expectations; in need of instruction.

F – Unacceptable. Inadequate in Many Areas. Problems in several of the following areas: depth of thought; ability to elaborate and provide sufficient detail; sentence structure, word choice, grammar, and spelling; organization and formatting; unity, sequencing, and transitions; fails to address or minimally addresses parts of the assignment, or level of thought far below expectations; in need of instruction.

0 - Not Turned In or Not Accepted By Instructor.

FINAL GRADE IN THE COURSE

Your final grade in this course is based on your performance on all of the requirements and weighted as noted.

The course grade will be determined based on the following weighting:

Unit Assignments	40% of final grade
Unit Online Discussions	20% of final grade
Unit Reading Reflections	20% of final grade
Final Project	20% of final grade

Students will also self-assess and will submit a brief “expected grade” justification based on accomplishments in the course using the following scale. The final grade will be a synthesis of self and instructor assessment.

TECHNOLOGY REQUIREMENTS

Browser support

D2L is committed to performing key application testing when new browser versions are released. New 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

Device	Operating System	Browser	Supported Browser Version(s)
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)
<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/) <https://get.adobe.com/reader/>
 - [Adobe Flash Player \(version 17 or later\)](https://get.adobe.com/flashplayer/) <https://get.adobe.com/flashplayer/>
 - [Adobe Shockwave Player](https://get.adobe.com/shockwave/) <https://get.adobe.com/shockwave/>
 - [Apple Quick Time](http://www.apple.com/quicktime/download/) <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

Brightspace Support

Need Help?

Student 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 or click on the **Live Chat** or click on the words “[click here](#)” to submit an issue via email.



System Maintenance

Please note that on the 4th Sunday of each month there will be System Maintenance which means the system will not be available 12 pm-6 am CST.

QUESTIONS ABOUT THE COURSE, ASSIGNMENTS, SYLLABUS, ETC.

Contact Dr. Naizer via **email** any time 24/7. I check my email regularly Monday through Friday and often on the weekends. If you email me and do not receive a response from me after 24 office hours (not including the weekend), please resend the email. If you do not receive a response after several office days, call the EDCI Office (903-886-5307) and ask an office manager to contact me.

Office Hours

Email me to schedule an appointment.

Email Correspondence

Email is available through the course shell – using this will identify the message as related to the course, so please use the course email.

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course/Department Specific Procedures/Policies:

Late Work.

Specific dates and times are established for every assignment – see course shell for details. No late work is accepted without extenuating circumstances approved by the instructor. Students who feel they have an extenuating situation must contact the instructor prior to or during the due date about the circumstance.

Technology Failure is not an automatic approved excuse for submitting late work. If you experience a technology issue you should: 1. Contact the Tech Support Team and send a copy of the “trouble ticket” to the instructor to document your efforts; 2. Email the assignment directly to the instructor before the due date to document your efforts.

Appeal of the Final Grade (13.99.99.R0.05 Student’s Appeal of Instructor’s Evaluation, Effective September 1, 1996. Revised February 8, 2007)

1. The final grades awarded by faculty members are their expert judgment concerning student performance. Students challenging a final grade must show that the instructor’s judgment was unfair based on:
 - a) some basis other than performance, or
 - b) standards different from those applied to other students in the same course section, or
 - c) a substantial, unreasonable, and unannounced departure from previously articulated standards or the syllabus.
2. Students who believe their grade to be unfair must first discuss the matter with the instructor.
3. If no satisfactory resolution is reached with the instructor, or if the instructor is unavailable, the student shall appeal to the department head. A grade appeal must be initiated in writing with the department head (or dean if the department head is the instructor) within six months of the last day of the semester in which the grade was awarded. The department head will examine the student’s appeal to determine whether the student has established an apparent case of unfair academic evaluation as described in section 1. If the student has not established a case that appears to have merit, the department head will so inform the student and the instructor without delay.
4. If the case has merit, the department head will secure, from all parties, written statements and other such information as he or she deems helpful and will issue his or her findings and remedies, if any. In so doing, the department head will be guided by the principle the burden of proof lies with the student. For additional information regarding the appeal of a final grade above that of the department head, please consult the latest version of the graduate catalog or contact the Head of the Department, Curriculum and Instruction, at 903-886-5537.

Academic Integrity/Honest Statement

This course demands a high level of scholarly behavior and academic honesty on the part of students. Violations of academic integrity/honesty while carrying out academic assignments may, at the discretion of the instructor, receive a zero on the particular work in question, receive an "F" in the course, or brought before a higher level of governance for possible dismissal from the university. Examples of academic dishonesty includes plagiarism, but are not limited to: (1) turning in work as original that was used in whole or part for another course and/or instructor without obtaining permission from this instructor in advance; (2) turning in another person's work, in part or in whole, as your own; (3) copying from professional works without citing them; and (4) any form of cheating on exams.

If you are unsure what constitutes plagiarism and how to avoid it, visit the following websites:

<http://www.plagiarism.org/>

<http://www.unc.edu/depts/wcweb/handouts/plagiarism.html>

UNIVERSITY SPECIFIC PROCEDURES:

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 in the [Student Guidebook](#).

<http://www.tamuc.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.aspx>

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum: [Netiquette http://www.albion.com/netiquette/corerules.html](http://www.albion.com/netiquette/corerules.html)

If you have a concern about a classmate's online discussion posts, assignments or behavior, please directly email the instructor as soon as possible.

TAMUC Attendance

For more information about the attendance policy please visit the [Attendance](#) webpage and [Procedure 13.99.99.R0.01](#).

<http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx>

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99.R0.01.pdf>

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 13.99.99.R0.03](#)

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf>

[Graduate Student Academic Dishonesty 13.99.99.R0.10](#)

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/graduate/13.99.99.R0.10GraduateStudentAcademicDishonesty.pdf>

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 www.tamuc.edu/counsel

ADA Statement

Students with Disabilities

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- Room 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](#)

<http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/>

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.

Web url:

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf>

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.