



## IS 451.01E, 23382, Historical Development and Great Ideas in Science

COURSE SYLLABUS: 202420

### INSTRUCTOR INFORMATION

**Instructor:** Dr. Cheri Davis

**Office Location:** McFarland Science Suite 148

**Office Hours:** Monday-Thursday 8:15-9:15 am, or anytime I am in the office and available

**Office Phone:** 903 468 8650

**Office Fax:** 903 468 8651

**University Email Address:** [cheri.davis@tamuc.edu](mailto:cheri.davis@tamuc.edu)

**Preferred Form of Communication:** email please

**Communication Response Time:** 24 hours, week days only

### COURSE INFORMATION

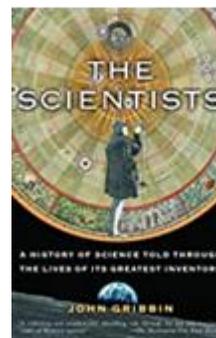
Materials – Textbooks, Readings, Supplementary Readings

Textbook

“*The Scientist*” is the recommended text for this course.

The text is available from the campus bookstore or online from Amazon (in different formats).

[https://www.amazon.com/s?k=the+scientists&ref=nb\\_sb\\_noss\\_1](https://www.amazon.com/s?k=the+scientists&ref=nb_sb_noss_1)



Software Required

Regular MS office (or equal)

Printing needs should be determined before the start of the semester

### Course Description

Science is an interesting and diverse topic that influences the quality of life. It is the instructor's intent to demonstrate that learning and teaching can be enjoyable as well as educational. By the end of the course, each student should have an understanding of his/her own philosophy of teaching.

This class will use the history of science as a timeline, which we will explore in detail. Some of the concepts studied will include the great leaders in science and their contributions, including but not limited to: biology, models of the solar system, star formation, energy, force and motion, the periodic table, spectroscopy, thermodynamics, continental drift, and plate tectonics. Topics may vary with student interests.

*The syllabus/schedule are subject to change.*

## Student Learning Outcomes

1. Students will gain a better pedagogical understanding.
  - Students will understand different teaching methods and how these methods have developed and advanced over time.
  - Students will identify different learning styles.
  - Students will be able to determine how teaching and learning styles compliment or support material in various situations.
  - Students will learn to develop quality laboratory experiments.
  - Students will develop a plan for laboratory safety and classroom management.
2. Preservice teachers will be better prepared to achieve success completing the TExES exam.
  - Students will understand the basic methodology of science through experimentation.
  - Students will understand the meaning, application, and concepts of basic science disciplines. The areas of study vary each semester as students have the option to explore topics of their selection.
3. Students will learn scientific principles to provide interesting and practical science knowledge and skills for facilitating classroom instruction and everyday life applications.
  - Student will complete a research paper over an approved topic.
  - Students will develop a timeline for the advancement of science and apply progression to their selected topic.
  - Students will learn and practice student-centered instruction.
4. Students will complete one of the following QEP requirements and submit one artifact.
  - Students will be able to demonstrate knowledge of the interconnectedness of global dynamics (issues, process, trends, and systems).
  - Students will be able to apply knowledge of the interconnectedness of global dynamics.
  - Students will be able to view themselves as engaged citizens within an interconnected and diverse world by the development of a lesson that can be used in their classroom including diverse populations.

## COURSE REQUIREMENTS

### Minimal Technical Skills Needed

This course is taught as a face-to-face class but is also web-enhanced. Students need access to a computer (there are computer labs on campus) in order to check e-mails, post assignments, and to share approved information. Students will be using eCollege through D2L and will be submitting specific assignments in the course.

Preservice teachers need to incorporate technology into their learning so that they can take this knowledge and understanding into their classrooms as they facilitate learning. Throughout this course, students will be using tools and technology to complete laboratory procedures. Students will need computer and printer access to complete various assignments. All written work should be typed, including citations as needed. Emailing your assignments instead of printing and turning in is not acceptable. Students should expect a large amount of printing through the duration of this course.

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## Instructional Methods

The instructional methods for this course will vary with the topic being explored. Students will be attentive through any lecture, providing the instructor/presenter their full attention. Questions will be welcomed and are encouraged during lecture; however, students will not engage in personal discussions thus disrupting class.

Students will be developing material that will be usable in the classroom including assessments for the material under development. Topics and instructional methods may vary with student interests.

## Student Responsibilities or Tips for Success in the Course

This class requires regular attendance as much of the content is delivered in a hands-on format that will build from one lesson to the next. If you miss a class, you may miss the skills needed for the next and future lessons. Missing even one class can cause a significant gap in your learning and understanding. The best thing you can do to be successful in this class is to not miss any classes.

This class meets Tuesdays & Thursdays from 12:30-1:45 pm. The class meets in a lab which prohibits us from having food in the classroom. Please plan to grab a quick lunch before attending class. Drinks are okay as long as they are covered. If class is meeting in the planetarium, drinks will be prohibited.

## GRADING

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

A = 90%-100%

B = 80%-89%

C = 70%-79%

D = 60%-69%

F = 59% or Below

Weights of the assessments in the calculation of the final letter grade.

Assignments	45%	<u>Tentative</u> Exam Schedule
Research/Presentations	25%	1) March 21
<u>Exams</u>	<u>30%</u>	2) Final Exam, May 9, 10:30-12:30
TOTAL	100%	

## Assessments

This course will be different than most science classes as students will have an opportunity to select and develop content for the topics studied. The students will be encouraged to contribute individual reflection, knowledge, research, and content.

Assignments will build as the course progresses; therefore, students are encouraged to organize and keep the developed content. All assignments will have a due date specified at the time the assignment is made. All due dates are given in advance; take them seriously as late work is not accepted.

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## 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 technical requirements

LMS Requirements:

<https://community.brightspace.com/s/article/Brightspace-Platform-Requirements>

LMS Browser Support:

[https://documentation.brightspace.com/EN/brightspace/requirements/all/browser\\_support.htm](https://documentation.brightspace.com/EN/brightspace/requirements/all/browser_support.htm)

Zoom Video Conferencing Tool

[https://inside.tamuc.edu/campuslife/CampusServices/CITESupportCenter/Zoom\\_Account.aspx?source=universalmenu](https://inside.tamuc.edu/campuslife/CampusServices/CITESupportCenter/Zoom_Account.aspx?source=universalmenu)

## 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](mailto: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 here:

<https://community.brightspace.com/support/s/contactsupport>

### Interaction with Instructor Statement

You are invited to take advantage of office hours. Those times are set aside weekly to meet with students. If the hours scheduled do not work with your schedule, please email and schedule an

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appointment. If you have a quick question, you are always welcome to stop by the office and if I am available, I'm happy to help.

If you know that you have an event that is going to require missing a class, please send this information to me through email so that I can get it on my schedule. [cheri.davis@tamuc.edu](mailto:cheri.davis@tamuc.edu) Please include your name and class in the subject line of all emails. If you do not receive a response within 2-work days, assume that your message did not go through and try an alternate means of communication.

I will post any changes to the schedule in D2L in the course announcements. Please check these regularly or set the announcements to email you as they are posted.

## **COURSE AND UNIVERSITY PROCEDURES/POLICIES**

### **Course Specific Procedures/Policies**

#### **Course Specific Policies:**

Violation of any class policies will be reflected on the student's final grade for the course.

1. Be professional. You are completing your degree and preparing for the classroom as the facilitator of instruction. Your attitude should reflect your professionalism which should include the remaining class policies.
2. Be here. Absences will result in lowering your overall grade. If you know in advance that you are going to miss class, **please inform me via-email as soon as it becomes apparent you will miss class**. A missed exam needs to be taken before they are graded and returned to the class, usually the next class period.
3. Be on time. Tardiness is a direct reflection of your professional attitude. This class meets Tuesday and Thursday from 12:30-1:45pm in STC 148. This is a very short amount of time and must be utilized effectively. Excessive tardiness will result in a low participation grade for this course and will be reflected in student's final grade.

As a teacher, you will be expected to turn in grades on time as well as meeting other deadlines; again, practice professionalism. All due dates are given in advance; take them seriously as **late work is not accepted**. Absences will not be considered a "good reason" for turning in late assignments. Turning in work early is always an option.

4. Be courteous. Cell phones will be turned off; failure to comply will result in the student being excused from class. No electronic devices (this includes use of a computer, tablet, or iPad) will be permitted during class unless arrangements are made in advance and approved by the instructor. Class computers will be available for classroom use as needed.

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

1. Students will be responsible for their learning and participate in all class activities with a positive attitude.
2. Students will have all homework completed upon entering class. Again, late work is not accepted so do not be late to class. Students will not attempt to work on any material for another class. A missed exam needs to be taken before they are graded and returned to the class.

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3. Students will participate and contribute equally in group activities. Failure to comply will be reflected in the non-compliant student's grade and will not be a detriment to the remaining group members. All collaborative assignments will have an individual grade for each student dependent upon their contribution, collaboration, content, and professionalism.

4. Students will meet the requirements for a "Global Learning" assignment. (see SLO #4)

### **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.

### **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/student\\_guidebook/Student\\_Guidebook.pdf](http://www.tamuc.edu/student_guidebook/Student_Guidebook.pdf)

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum: <https://www.britannica.com/topic/netiquette>

#### **TAMUC Attendance**

For more information about the attendance policy please visit the [Attendance](#) webpage and [Procedures 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](#)

[Undergraduate Student Academic Dishonesty Form](#)

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/documents/13.99.99.R0.03UndergraduateStudentAcademicDishonestyForm.pdf>

[Graduate Student Academic Dishonesty Form](#)

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<http://www.tamuc.edu/academics/graduateschool/faculty/GraduateStudentAcademicDishonestyFormold.pdf>

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

## **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](mailto:studentdisabilityservices@tamuc.edu)

Website: [Student Disability Services](#)

<https://www.tamuc.edu/student-disability-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.

Web url:

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

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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.

## **A&M-Commerce Supports Students' Mental Health**

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](http://www.tamuc.edu/counsel)

## **AI use policy [Draft 2, May 25, 2023]**

Texas A&M University-Commerce acknowledges that there are legitimate uses of Artificial Intelligence, ChatBots, or other software that has the capacity to generate text, or suggest replacements for text beyond individual words, as determined by the instructor of the course.

Any use of such software must be documented. Any undocumented use of such software constitutes an instance of academic dishonesty (plagiarism). Individual instructors may disallow entirely the use of such software for individual assignments or for the entire course. Students should be aware of such requirements and follow their instructors' guidelines. If no instructions are provided the student should assume that the use of such software is disallowed.

In any case, students are fully responsible for the content of any assignment they submit, regardless of whether they used an AI, in any way. This specifically includes cases in which the AI plagiarized another text or misrepresented sources.

13.99.99.R0.03 Undergraduate Academic Dishonesty

13.99.99.R0.10 Graduate Student Academic Dishonesty

## **Department or Accrediting Agency Required Content**

### **COURSE OUTLINE / CALENDAR**

#### **Domain IV-Science**

- Competency 25 scientific inquiry
- Competency 27 unifying concepts and processes in science
- Competency 28 theory and practice of science teaching
- Competency 29 assessments in science learning
- Competency 30-34 physical science
- Competency 35-37 life science
- Competency 38-41 Earth and space science

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