



Course Syllabus: Concepts of Science  
College of Education  
GNSC 3104  
Fall 2024

Contact Information

Instructor: Gary Cunningham M.Ed.  
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Course Description

The curriculum will emphasize the interaction of the science disciplines and feature the fundamental principles of physical, biological and earth sciences for all levels of teaching science. Creditable only for students seeking an education certification in science.

Textbook & Instructional Materials

Material will be provided with online support.

Student Handbook

Refer to: [Student Handbook 2020-21](#)

Academic Misconduct Policy & Procedures

Academic Dishonesty: Cheating, collusion, and plagiarism (the act of using source material of other persons, either published or unpublished, without following the accepted techniques of crediting, or the submission for credit of work not the individual's to whom credit is given). Additional guidelines on procedures in these matters may be found in the Office of Student Conduct. [Office of Student Conduct](#).

Grading

Table 1: Points allocated to each assignment.

Assignments	Points
Quizzes	250
Project/Activity	100
Test 1,2,3,4	400
Final	100

Lab Safety Materials	50
Participation	100
Total Points	1000

Points for Semester	Letter Grade
900-1000	A
800- 899	B
700 - 799	C
600 - 699	D
599 or less	F

### Participation

It's not just enough to show up! Participate in class discussions and activities by making meaningful, thoughtful contributions. Be sure you don't monopolize discussions; actively include other class members. You must read all materials when assigned. A participation grade can add points to your grade if you interact or take away points if you distract. This might be actions such as talking, disrupting, even on your phone while I'm talking.

How do I arrive at your grade? At the end of the semester, I take your present class average grade and round up to a whole number. That is your grade for a base. An example if you had an 81.4 average. You would receive an 82 for your participation grade. **An 82 does not change your overall average.** Then I go back and look at your involvement. I give more points for asking questions, actual participation (that 82 might move up to an 86 or 88). I take away points from the 82 if you distract.

### Quizzes and exams

Quizzes listed into D2L.

Exams

There will be four exams and one final.

### Extra Credit

There may be opportunities throughout the semester to earn extra and or replacement credit points if a student request. The extra credit could be but not limited to an allowance for taking a test again to achieve the 80 % requirement.

### Late Work

Assignments are expected to be turned in by the due date. If accepted due to exigent circumstances. TWENTY FIVE percent of the total points will be deducted

per day, and any assignment submitted more four days late will not be graded.

### Make Up Work/Tests

Tests and quizzes may only be made under exigent circumstances. Student must produce a doctor's or dean/chair note to make up tests.

### Important Dates

Last day for term schedule changes: Check date on [Academic Calendar](#).

Deadline to file for graduation: Check date on [Academic Calendar](#).

Last Day to drop with a grade of "W:" Check date on [Academic Calendar](#).

Refer to: [Drops, Withdrawals & Void](#)

### Desire-to-Learn (D2L)

Extensive use of the MSU D2L program is a part of this course. Each student is expected to be familiar with this program as it provides a primary source of communication regarding assignments, examination materials, and general course information. You can log into [D2L](#) through the MSU Homepage. If you experience difficulties, please contact the technicians listed for the program or contact your instructor.

### Attendance

This is an involved class, and as such, attendance is required. Students are expected to attend class sessions as assigned.

### Online Lab Computer Requirements

Some online lab class required. You to have access to a computer (with Internet access) to complete and upload your assignments. It is your responsibility to have (or have access to) a working computer in this class. **Assignments and tests are due by the due date, and personal computer technical difficulties will not be considered reason for the instructor to allow students extra time to submit assignments, tests, or discussion postings.** Computers are available on campus in various areas of the buildings as well as the Academic Success Center. **Your computer being down is not an excuse for missing a deadline.** There are many places to access your class.

The online material can be accessed from any computer in the world which is connected to the internet. Contact your instructor immediately upon having computer trouble. If you have technical difficulties in the course, there is also a student helpdesk available to you. The college cannot work directly on student computers due to both liability and resource limitations however they are able to help you get connected to our online services. For help, log into [D2L](#).

### Teacher Certification

**Students who are seeking teaching certification will need to achieve a grade of 80% or above on each module assessment to demonstrate**

**mastery over the concept.** If you score less than 80% on a module assessment, you will have an opportunity to review the material and redo that assessment. You may redo a module assessment one time. If you have not passed the module in two attempts, you will work with your university professor to determine another method of fulfilling the requirements in this subject.

### Instructor Class Policies

Students are expected to assist in maintaining a classroom environment which is conducive to learning. In order to assure that all students have the opportunity to gain from time spent in class/clinical experiences, unless otherwise approved by the instructor, **students are prohibited from engaging in any form of distraction—this includes, but is not limited to, pagers and cell phones.** Electronic communications devices will be turned off anytime the class member is in the school building. Inappropriate behavior in the classroom shall result, minimally, in a request to leave class and a Professional Fitness Form will be filed for review with the college. If the instructor must file a Fitness Alert Form for any reason, including failure to demonstrate appropriate teaching dispositions, the student may receive an instructor drop with an "F" for the course.

MSU students demand of themselves the highest level of academic honesty as delineated in their honor creed. Academic honesty involves the submission of work that is wholly the student's own work, except in the case of assigned group work. Additionally, academic honesty involves the proper citation of other author's works.

By enrolling in this course, the student expressly grants MSU a "limited right" in all intellectual property created by the student for the purpose of this course. The "limited right" shall include but shall not be limited to the right to reproduce the student's work product in order to verify originality and authenticity, and for educational purposes.

Adhering to professional ethics – When using professional sources in your writing, please cite sources you have used or ideas you have adapted when completing assignments. Use of copyrighted materials must adhere to legal and ethical guidelines. If part of an assignment is submitted for credit in more than one course, both professors must pre-approve this dual credit and the dual use should be referenced clearly on both assignments.

Any emails I receive will have a response by the end of the next business day. Other than the specified online times. Any emails sent on Friday will have a response by the end of Monday.

### Change of Schedule

A student dropping a course (but not withdrawing from the University) within the first 12 class days of a regular semester or the first four class days of a summer semester is eligible for a 100% refund of applicable tuition and fees. Dates are

published in the [Schedule of Classes](#) each semester.

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#### Refund and Repayment Policy

A student who withdraws or is administratively withdrawn from Midwestern State University (MSU) may be eligible to receive a refund for all or a portion of the tuition, fees and room/board charges that were paid to MSU for the semester. HOWEVER, if the student received financial aid (federal/state/institutional grants, loans and/or scholarships), all or a portion of the refund may be returned to the financial aid programs. As described below, two formulas (federal and state) exists in determining the amount of the refund. (Examples of each refund calculation will be made available upon request).

#### Services for Students with Disabilities

In accordance with Section 504 of the Federal Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, Midwestern State University endeavors to make reasonable accommodations to ensure equal opportunity for qualified persons with disabilities to participate in all educational, social, and recreational programs and activities. After notification of acceptance, students requiring accommodations should make application for such assistance through Disability Support Services, located in the Clark Student Center, Room 168, (940) 397-4140. Current documentation of a disability will be required in order to provide appropriate services, and each request will be individually reviewed. For more details, please go to Disability Support Services.

#### College Policies

##### Campus Carry Rules/Policies

Refer to: Campus Carry Rules and Policies

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##### Smoking/Tobacco Policy

College policy strictly prohibits the use of tobacco products in any building owned or operated by MSU TEXAS Adult students may smoke only in the outside designated-smoking areas at each location.

##### Alcohol and Drug Policy

To comply with the Drug Free Schools and Communities Act of 1989 and subsequent amendments, students and employees of Midwestern State are informed that strictly enforced policies are in place which prohibits the unlawful possession, use or distribution of any illicit drugs, including alcohol, on university

property or as part of any university-sponsored activity. Students and employees are also subject to all applicable legal sanctions under local, state and federal law for any offenses involving illicit drugs on University property or at University-sponsored activities.

## Campus Carry

Effective August 1, 2016, the Campus Carry law (Senate Bill 11) allows those licensed individuals to carry a concealed handgun in buildings on public university campuses, except in locations the University establishes as prohibited. The new Constitutional Carry law does not change this process. Concealed carry still requires a License to Carry permit, and openly carrying handguns is not allowed on college campuses. For more information, visit [Campus Carry](#).

## Active Shooter

The safety and security of our campus is the responsibility of everyone in our community. Each of us has an obligation to be prepared to appropriately respond to threats to our campus, such as an active aggressor. Please review the information provided by MSU Police Department regarding the options and strategies we can all use to stay safe during difficult situations. For more information, visit [Safety / Emergency Procedures](#). Students are encouraged to watch the video entitled "Run. Hide. Fight." which may be electronically accessed via the University police department's webpage: ["Run. Hide. Fight."](#)

**Obligation to Report Sex Discrimination under State and Federal Law**  
Midwestern State University is committed to providing and strengthening an educational, working, and living environment where students, faculty, staff, and visitors are free from sex discrimination of any kind. State and federal law require University employees to report sex discrimination and sexual misconduct to the University's Office of Title IX. As a faculty member, I am required to report to the Title IX Coordinator any allegations, personally observed behavior, or other direct or indirect knowledge of conduct that reasonably may constitute sex discrimination or sexual misconduct, which includes sexual assault, sexual harassment, dating violence, or stalking, involving a student or employee. After

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a report is made, the office of Title IX will reach out to the affected student or employee in an effort to connect such person(s) with resources and options in addressing the allegations made in the report. You are also encouraged to report any incidents to the office of Title IX. You may do so by contacting:

Laura Hetrick  
Title IX Coordinator  
Sunwatcher Village Clubhouse  
940-397-4213

[laura.hetrick@msutexas.edu](mailto:laura.hetrick@msutexas.edu)

You may also file an online report 24/7 at [Online Reporting Form](#)

Should you wish to visit with someone about your experience in confidence, you may contact the MSU Counseling Center at 940-397-4618. For more information on the University's policy on Title IX or sexual misconduct, please visit [Title IX Website](#)

### Grade Appeal Process

Update as needed. Students who wish to appeal a grade should consult the [Midwestern State University MSU Catalog](#)

Notice

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Course Schedule may be modified due to timing:

Week or Due Date	Activities/Assignments/Exams	
Aug 29	Intro to Science Lab 01 Begin ASAP e-science lab	On -line day
Aug 29	Complete Module 1 and Lab: Coffee (only)	On -line day
Aug 29	Quiz: About Science Complete "labequipmentscramble"	On -line day
Sept 3	Lab 02 Science Measurement e-science lab	On -line day

Week or Module	Activities/Assignments/Exams	
Sept 5	Quiz 1: Phy. Sci	On -line day
Sept 5	Quiz 2: Phy. Sci	On -line day
Sept 10	Quiz 3: Phy. Sci.	On -line day
Sept 10	Sound and light S. G.	On -line day



Sept 12	Electro Mag S. G.	On -line day
Sept 12	Atomic Theory S.G.	On -line day
Sept 17	Safety discussion 9/17/24 <b>Test 1:NEW DATE 9/19/24</b>	In - Class
Oct 1	Quiz 1: Chem	On -line day
Oct 3	Quiz 2: Chem	On-line day
Oct 3	Phy and Chem S. G.	On-line day
Oct 15	<b>Test 2:</b> Phy. and Chem	In class
Oct 24	Quiz 1: Earth Sci.	On-line day
Oct 24	Quiz 2: Earth Sci.	On-line day
Nov 8	<b>Test 3:</b> Earth Sci.	In-class
Nov 26	TBA	
Dec 5	Quiz 1: Life Sci.	Out side of class assignment
Dec 5	Quiz 2: Life Sci	Out side of class assignment
Dec 5	<b>Test 4:</b> Life Sci.	In-class
TBA	Final	

- **Labs have varying due dates. Some labs take many days.**
- **References/Scientifically-Based Research/Additional Readings:**

Atzori, P. (1996). Discovering CyberAntarctic: A Conversation with Knowbotics Research. *CTHEORY*. Available at: <http://www.ctheory.com/>

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Derry, S. (1992). Beyond symbolic processing: Expanding horizons in educational psychology. *Journal of Educational Psychology*, 413-418.

Derry, S. (1996). Cognitive Schema Theory in the Constructivist Debate. In *Educational Psychologist*, 31(3/4), 163-174.

Driver, R., Aasoko, H., Leach, J., Mortimer, E., Scott, P. (1994). Constructing scientific knowledge in the classroom. *Educational Researcher*, 23 (7), 5-12.



Ernest, P. (1995). The one and the many. In L. Steffe & J. Gale (Eds.). *Constructivism in education* (pp.459-486). New Jersey: Lawrence Erlbaum Associates, Inc.

Fosnot, C. (1996). Constructivism: A Psychological theory of learning. In C. Fosnot (Ed.) *Constructivism: Theory, perspectives, and practice*, (pp.8-33). New York: Teachers College Press.

Gergen, K. (1995). Social construction and the educational process. In L. Steffe & J. Gale (Eds.). *Constructivism in education*, (pp.17-39). New Jersey: Lawrence Erlbaum Associates, Inc.

Hanley, Susan (1994). On Constructivism. Available at: <http://www.inform.umd.edu/UMS+State/UMD-Projects/MCTP/Essays/Constructivism.txt>

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Vygotsky, L. (1978). *Mind in Society: The Development of Higher Psychological Processes* MA: Harvard University Press.

Wilson, B. & Cole, P. (1991) A review of cognitive teaching models. *Educational Technology Research and Development*, 39(4), 47-64.

Wilson, B. (1997). The postmodern paradigm. In C. R. Dills and A. Romiszowski (Eds.), *Instructional development paradigms*. Englewood Cliffs NJ: Educational Technology Publications. Also available at: <http://www.cudenver.edu/~bwilson/postmodern.html>

## Standards and Pedagogy

Right click standards below then select open hyperlink.

: [Standards](#)