



Course Syllabus: Concepts of Science
College of Education
GNSC 3104
Fall 2021

Contact Information

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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

Hewitt, P. G. (2013). *Conceptual integrated science*. Boston: Pearson. **Not required. eScience Labs kits are required. MSU bookstore has in stock.**

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Dishonesty: Cheating, collusion, and plagiarism (the act of using source material of other persons, either published or unpublished, without following the accepted techniques of crediting, or the submission for credit of work not the individual's to whom credit is given).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	100
Test 1,2,3,4	400

Final	100
Lab Safety Certifications	50
Participation	100
Total Points	1000

Your class average is 75% and the lab grade is 25%. Obviously, we have a class and a lab in D2L but only one grade for a final grade.

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

There will be 10 quizzes.

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 virtually and face-to-face. Students are expected to attend class sessions as assigned.

Online Lab Computer Requirements

Taking an online lab class requires 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.

Our online classes 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. 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.

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](#)

Smoking/Tobacco Policy

College policy strictly prohibits the use of tobacco products in any building owned or operated by WATC. 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.

Grade Appeal Process

Students who wish to appeal a grade should consult the Midwestern State University [Undergraduate Catalog](#)

Notice

Changes in the course syllabus, procedure, assignments, and schedule may be made at the discretion of the instructor.

Course Schedule may be modified due to timing:

Week or Module	Activities/Assignments/Exams	
Sept 5	Lab: Intro to Science	
Sept 5	Quiz: About Science	
Sept 5	Lab: Science Measurement	
Sept 12	Quiz 1: Phy. Sci	

Week or Module	Activities/Assignments/Exams	
Sept 10-12	Test 1: Safety	
Sept 19	Quiz 2: Phy. Sci	
Sept 19	Lab: Phy. And Chem Properties	
Sept 26	Quiz 3: Phy. Sci.	
Oct. 3	Quiz 1: Chem	
Oct 10	Quiz 2: Chem	
Oct 17	Lab: Climate Change	
Oct 15-17	Test 2: Phy. and Chem.	
Oct 24	Quiz 1: Earth Sci.	

Oct 31	Lab: Rocks and Minerals	
Oct 31	Quiz 2: Earth Sci.	
Nov 5-7	Test 3: Earth Sci.	
Nov 7	Quiz 1: Life Sci.	
Nov 14	Lab: Ecosystems	
Nov 21	Lab: Pop. Bio.	
Nov 28	Quiz 2: Life Sci	
Nov 28	Lab: Pop Genetics	
Nov 28	Project due	
Nov.28	Test 4: Life Sci.	
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/>

Brown, J.S., Collins, A. & Duguid, S. (1989). Situated cognition and the culture of learning. *Educational Researcher*, 18(1), 32-42.

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](#)

von Glasersfeld, E. (1996). Introduction: Aspects of constructivism. In C. Fosnot (Ed.), *Constructivism: Theory, perspectives, and practice*, (pp.3-7). New York: Teachers College Press.

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](#)