Course Syllabus: Physical Science
Kimbell School of Geoscience

GNSC 1204 Section 101
Fall 2025

Contact Information

Instructor: Dr. Jonathan D. Price (he/him)
Office: Bolin 101B
Office hours: M 1-2 PM | T 10:30AM -12 PM | W 1-2 PM | R: 3:30-5:30 PM | by appointment
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Lecture: MWF, 8:00 am-8:50 am Bolin 142

Course Description

Physical Science is a college-level course that introduces the prevailing concepts and useful concepts of physics and chemistry in a fundamental fashion. The course provides student opportunities to…

- Explore the nature of scientific inquiry
- Measure motion through velocity and acceleration
- Evaluate the nature of forces and energy
- Investigate and outline energy transfer in a number of manifestations - including heat, electricity, light and sound
- Examine the structure of the atom, and how that structure controls ionization and bonding, resulting in periodicity
- Characterize the general nature of chemical reactions, stoichiometric assessment, and energetics
- Assess the nature of water, solutions, and the properties of acids and bases

The class is curriculum specific to those interested in EC-6th grade education, although other enrollees may take the course with prior advisory approval. The course is designed to impart background information crucial to a rudimentary understanding about the current understanding of our physical environment.

Textbooks

Required

- *Science Matters: Achieving Science Literacy*, 2nd Ed., ISBN:978-0-307-45458-4
- Top Hat subscription

Suggested: *Conceptual Integrated Science: An introduction to the sciences*, 2nd Ed., ISBN: 9780321

Instructional Materials

- Dedicated scientific calculator
- Periodic table of the elements (with numbers and weights) - preferably one you are able to annotate (perhaps better than the one in the front of book).
- Ruler (with metric scale), drawing tools
- Access to a phone, tablet, or laptop during participation activities and quizzes
- Access to a computer outside of class

Lab Assistance

Lab teaching assistant: Ms. Mekerie Francis

Student Handbook

Refer to: Student Handbook

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Dishonesty: Cheating, collusion, and plagiarism (the act of using source material of other persons, either published or unpublished, without following the accepted techniques of crediting, or the submission for credit of work not the individual's to whom credit is given).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. The Academic Honesty Checklist describes the timeline for appealing from the instructor to the next in line (chair of department) and who must be notified of academic honesty infractions.

Plagiarism

Plagiarism is the use of someone else's thoughts, words, ideas, or lines of argument in your own work without appropriate documentation (a parenthetical citation at the end and a listing in "Works Cited")-whether you use that material in a quote, paraphrase, or summary. It is a theft of intellectual property and will not be tolerated, whether intentional or not.
Plagiarism may result in an F for the class or more extensive consequences.

Artificial Intelligence

Chatbots and image generators (generative artificial intelligence like ChatGPT) have recently grown in sophistication and accessibility. They can be useful tools to assist in drafting out responses, but they should be an assistance, not a substitute for your thinking.
While you are at college, you need to find your own voice. Any creative input in this class is an opportunity to test and refine that; avoid shortchanging yourself the feedback you deserve.
Finally, in all academic work, ideas and contributions from others must be acknowledged. Using an AI-content generator to complete coursework without proper attribution or authorization is a form of academic dishonesty. For this class, use of AI-content with appropriate citation of the model and its sources is permitted.

Grading

Table 1: Points allocated to each assignment

Components	Points
Quizzes (Top Hat)	10 %
Participation (Top Hat)	10 %
Midterm Exam	11 %
Journal assignments	12 %
Final Exam	12 %
Lab Assignments	30 %
Laboratory midterm	7 %
Laboratory final	8 %

Table 2: Total points for final grade.

Grade	Percentage
A	>90%
B	80-90%
C	70-79%
D	60-69%
F	<60%

Assessments related to the MSU Core Coursework

This class serves the MSU core (Life & Physical Sciences - 030N) and reports assessments in Critical Thinking, Communication skills (Written Communication), Empirical and Quantitative Skills (Quantitative Literacy), and Teamwork. Lab 3 (Centripetal Force) is evaluated for the written answers explaining the experiment [AACU Critical Thinking: Explanation of issues, Influence of context and assumptions, Conclusions and related outcomes; AACU Written Communication: Context of and Purpose for Writing, Content Development, Genre and Disciplinary Conventions], for team effort [AACU Teamwork: Facilitates the Contributions of Team Members, Individual Contributions Outside of Team Meetings, Fosters Constructive Team Climate] for quantitative skill: calculate the force exerted on a rotating mass through static and dynamic evaluation [AACU Quantitative Literacy: Calculation, Application / Analysis, Assumptions]

Submissions

Submission instructions will generally be given for each assessment. Lab materials may be submitted in person to your individual lab instructor. Journals are to be submitted using D2L, and in-class electronic assessments will be collected using Top Hat.

Quizzes

We will have a quiz approximately every second Friday (check schedule and look for frequent reminders. Quizzes are timed at 10 minutes or longer at the discretion of the

professor. There are six on the proposed schedule. Instructions for completion will be given during each quiz.

Projects Required

There is a journal opportunities for the class. This is assigned at an appropriate point in the lecture schedule (generally at 7 weeks). Details will be provided on D2L.

Midterm Exam

The midterm exam will evaluate student comprehension of material up to the day of the examination. The tentative schedule for covered topics and date is provided below.

Final Exam

The final exam will be a comprehensive, two-hour examination at the scheduled time for the class (see schedule below).

Extra Credit

There will be a handful of opportunities for additional, non-required credit.

Late Work

Execution of this class will require a focused and directed effort on the part of your instructors to complete grading and input grades on a timely manner. As such, late work penalizes the rest of the class. Late work will only be accepted if the professor (and TA in the case of lab work) are notified before it is due and agree to accept it as late. Generally, if the request is approved, you have one additional week to submit the work for partial credit.

Make Up Participation/Quizzes/Tests

An excused absence is required to make up. Excuse requests are typically accepted provided that the professor is notified prior to the absence. Excuses are rarely issued if the professor is notified after the absence. Excuse requests need not be elaborate; contact the professor by email or through D2L.
There is no makeup for the participation exercises; you must be participating in the class to complete these.
For quizzes, the professor will typically take the next quiz grade and apply it to your missing grade.
For examination, the student must work out with the professor an agreeable date and time for the makeup prior to the exam.

Top Hat

Extensive Top Hat is an external tool that facilitates participation and engagement, and enrollment is an added requirement for the class. We will be using Top Hat and the Top Hat test tool (https://tophat.com/). This requires a subscription to the pro version (without add ons).

Top Hat is separate from D2L. It is important that when you register for Top Hat you include your M#. Please also use an email address that you check frequently.

Attendance

Attendance for lecture is required. Lab attendance is also required for completion of this class. Most sessions will have a supervised activity that requires your full, prepared attention. Preparation includes comprehension of the lab book and participation of online activities. If you fail to attend and complete more than 2 laboratory sessions without an approved excuse, you will be either be dropped from the class or you will receive a failing grade.

Illness

Contagious pathogens are an ongoing concern. The instructor would appreciate your thoughtful engagement of the class, including respecting the health, safety, and concerns of your colleagues.

As always – illness is an excused absence. Please follow university guidance regarding the illness, including any adaptations and changes as the semester proceeds.

If you are feeling ill, then you shouldn't be out and about (stay home, get better). If illness interferes with your participating class, then you should do the following:

1. Email the professor through D2L; use "ill" in the subject line
2. Contact your health provider

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 a100% 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).

Learning environment

Dr. Price is committed to providing a forum for learning and endeavors. This class will be a safe, open, and supporting space for all students. Dr. Price is available and willing to address your issues and concerns. He also wants you to be aware of the following supporting structures that assist in this environment.

Student Engagement Center: cultivates "a sense of belonging for all students at MSU Texas by facilitating student access to critical resources and opportunities, supporting student success and advocating for constant improvement in the way we meet students' needs across our campus. https://msutexas.edu/student-life/engagement-center/

Policies for general student complaints are available at https://msutexas.edu/student-life/dean/general.php. General student complaints should start with the informal process form https://cm.maxient.com/reportingform.php?MSUTexas&layout_id=4

Sexual misconduct is handled by the Title IX Coordinator, and misconduct information and reporting is https://msutexas.edu/titleix/

Anonymous complaints can be made through EthicsPoint: https://secure.ethicspoint.com/domain/media/en/gui/45483/index.html

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.

University Policies

Campus Carry

Refer to: Campus Carry Rules and Policies

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.

Grade Appeal Process

Update as needed. Students who wish to appeal a grade should consult the Midwestern State University Undergraduate Catalog. The Grade Appeal Checklist provides the timeline for appealing from the instructor to the next in line (dean of the college).

Notice

Changes in the course syllabus, procedure, assignments, and schedule may be made at the discretion of the instructor. This is not business-as-usual this semester…anticipate thoughtful changes as we move forward.

Proposed Topic Schedule

Week	Day	Date	Topic	Text	Lab
1	M	8/25/2025	Intro	none	None
1	W	8/27/2025	Science	1	None
1	F	8/29/2025	Science	1	None
2	W	9/3/2025	Measurements	1	None
2	F	9/5/2025	Measurements / Quiz 1	1	None
2	M	9/8/2025	Time	1	1. Mass and volume
3	W	9/10/2025	Time	1	None
3	F	9/12/2025	Visual Literacy & The Scientific Mind	1	None
4	M	9/15/2025	Motion	1	2. Motion
4	W	9/17/2025	Motion	1	None
4	F	9/19/2025	Motion / Quiz 2	1	None
5	M	9/22/2025	Newton and Motion	1	3. Centripetal force
5	W	9/24/2025	Newton and Motion	1	None
5	F	9/26/2025	Newton and Motion	1	None
6	M	9/29/2025	Momentum	1	4. Work
6	W	10/1/2025	Work	2	None
6	F	10/3/2025	Work / Quiz 3	2	None
7	M	10/6/2025	Energy	2	5. Specific heat
7	W	10/8/2025	Energy	2	None
7	F	10/10/2025	Exam 1	1-2	None
8	M	10/13/2025	Gravity	2	Midterm
8	W	10/15/2025	Gravity	2	None
8	F	10/17/2025	Heat and temperature	2	None
9	M	10/20/2025	Heat and temperature	2	6. Magnetism and Electricity
9	W	10/22/2025	Heat and temperature	2	None
9	F	10/24/2025	Electricity / Quiz 4	3	None
10	M	10/27/2025	Electricity	3	7. Conductivity
10	W	10/29/2025	Electricity	3	None
10	F	10/31/2025	Waves, sound, light	none	None
11	M	11/3/2025	Waves, sound, light	none	8. Qualitative Analysis
11	W	11/5/2025	Atoms	4	None
11	F	11/7/2025	Atoms / Quiz 5	4	None
12	M	11/10/2025	Periods	5	9. Acids and bases
12	W	11/12/2025	Periods	5	None
12	F	11/14/2025	Radioactivity	8	None

Week	Day	Date	Topic	Text	Lab
13	M	11/17/2025	Matter	7	10. Titration
13	W	11/19/2025	Bonds / Quiz 6	6	None
13	F	11/21/2025	Chemical Reactions	7	None
14	M	11/24/2025	Chemical Reactions	7	Lab Final
15	M	12/1/2025	Water and Solutions	none	None
15	W	12/3/2025	Water and Solutions	none	None
15	F	12/5/2025	Universe	none	None
F	W	12/10/2024	Final Exam - 10:30 AM	all	None