



**MIDWESTERN**  
STATE UNIVERSITY

# Course Syllabus: GNSC 1204 Physical Science

Kimbell School of Geoscience

GNSC 1204 Section 101  
Fall 2026

## Contact Information

Instructor: Dr. Jonathan Price

Office: 101B

Office hours: M 1:30 -3:30 | T 1-2 | W 1:30 -3:30 | By appointment

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## 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-6<sup>th</sup> 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.

## Textbook & Instructional Materials

### Required

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

Suggested: Conceptual Integrated Science: An introduction to the sciences, 2<sup>nd</sup> Ed., ISBN: 9780321

## Lab

Weekly meetings, M1-2:50 BO 125 | Instructor: Michael Johnson

### Grading and components

Student accrue points with completion of components in this course. A standard letter grade will be earned from accumulated points at the end of the class.

#### **Points allocated to each component**

| Components              | Points |
|-------------------------|--------|
| Quizzes (Top Hat)       | 100    |
| Participation (Top Hat) | 100    |
| Midterm Exam            | 110    |
| Journal assignment      | 120    |
| Final Exam              | 120    |
| Lab Assignments         | 200    |
| Lab Quizzes             | 100    |
| Laboratory midterm      | 70     |
| Laboratory final        | 80     |
| Total                   | 1000   |

#### **Total points and grade**

| Points        | Grade |
|---------------|-------|
| 900           | A     |
| 800 to 899    | B     |
| 700 to 799    | C     |
| 600 to 699    | D     |
| Less than 600 | F     |

### *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]

### *Participation*

We'll have daily questions each lecture through Top Hat, an external tool that facilitates participation and engagement. Enrollment is a 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 that you use an email address that you check frequently

### *Quizzes*

We will have a quiz that opens online approximately every other Friday (check schedule and look for frequent reminders). These will become available Friday and close at 11:59 the following Monday. Quizzes are timed at 20 minutes or longer at the discretion of the professor. There are six on the proposed schedule. Quizzes will use the Tophat learning tool and use modified participation questions.

### *Exams*

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

### *Projects Required*

There is a journal opportunity for the class. Part worksheet, part written reflection, this is assigned at an appropriate point in the lecture schedule (generally at 7 weeks). Details will be provided on D2L.

### *Extra Credit*

There may be a handful of opportunities for additional, non-required credit. This may provide a "bump" to your grade, but won't replace diligent, day-to-day efforts.

### *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 late 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 may extend the quiz deadline such that completion falls after the excuse.

For examination, the student must work out with the professor an agreeable date and time for the makeup prior to the exam

## Important Dates

- Last Day to drop with a grade of “W:” November 23
- Refer to: [Drops, Withdrawals & Void](#)

## Policies

### *Instructor Class Policies*

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.

- The 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/>
- Sexual misconduct and discrimination or harassment should be reported to our Title IX office.  
<https://msutexas.edu/titleix/>
- 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](https://cm.maxient.com/reportingform.php?MSUTexas&layout_id=4)

### *Attendance*

Attendance for lecture is required and will be recorded through Top Hat. Lab attendance is also required for completion of this class. Most lab 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.

Illness is an excused absence. Please follow university guidance regarding the illness. If you are feeling ill, then you shouldn’t be out and about (stay home, get better). If illness interferes with your participating in class, then you should do the following:

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

### *Recording of Classes/Labs*

Recording classes is prohibited without the professor’s explicit permission, or alternatively through approval of Disability Support Services, as per the Americans with Disabilities Act. Such recordings, when permitted, are for personal use only and may not be uploaded to the internet or otherwise shared, transmitted, or published without the professor’s prior consent.

### *Academic Misconduct*

Academic Dishonesty: Cheating, collusion, and plagiarism are, of course, forbidden in this class. Plagiarism need not be willful copying, so be careful to accurately cite any and all sources from where you draw information. Additional guidelines on procedures in these matters may be found in the Office of Student Conduct. Academic dishonesty will not be tolerated. Such behavior will result in lost credit or more severe penalties.

[Office of Student Conduct](#)

### **Artificial Intelligence Use**

Generative AI offers the possibility of feedback and guidance in tasks, but needs to be carefully utilized with a critical eye. You may not submit any text authored by AI for this class – all answers should be in your own words. You may carefully use AI for researching questions, but you should acknowledge (cite) such usage. Failure to do so will be considered plagiarism (because it is).

### **Resources**

#### *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.

#### *Study Hours and Tutoring Assistance*

Tutoring & Academic Support Programs (TASP) is on the first floor of the library. <https://msutexas.edu/academics/tasp/> , and provides tutoring for physics and chemistry.

#### *Moffett Library*

Moffett Library provides resources and services to support student's studies and assignments, including books, peer-reviewed journals, databases, and multimedia materials accessible both on campus and remotely. The library offers media equipment checkout, reservable study rooms, and research assistance from librarians to help students effectively find, evaluate, and use information. Get started on this [Moffett Library webpage](#) to explore these resources and learn how to best utilize the library.

#### **Student Handbook**

Refer to: [Student Handbook](#)

#### **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 Student Wellness Center, (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](#).

#### Emergency Aid Resources for Basic Needs

Unexpected life circumstances can affect anyone. If you are experiencing challenges meeting basic needs—such as housing, utilities, food, transportation, healthcare, technology, textbooks or other life necessities, resources may be available to help. Visit the [Student Emergency Support and Resources webpage](#) to learn more, and explore emergency support opportunities through MSU and how to access them. For additional information, please contact the Office of Student Affairs: Clark Student Center #108, (940) 397-7500, [student.affairs@mstuexas.edu](mailto:student.affairs@mstuexas.edu).

#### MSU Policies

##### *Campus Carry Rules/Policies*

Refer to: [Campus Carry Rules and Policies](#)

##### *Smoking/Tobacco Policy*

Midwestern State University seeks to provide a safe, healthy, pleasant environment for its faculty, staff, and students. To this end, the use of all tobacco products is prohibited in class, lab, or related activities.

##### *Active Shooter*

The safety and security of our campus is the responsibility of everyone in our community. 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 [MSUReady – Active Shooter](#).

#### Grade Appeal Process

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

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

## GNSC 1204 Schedule:

| <b>Week</b> | <b>Day</b> | <b>Date</b> | <b>Topic</b>          | <b>Text</b> | <b>Lab</b>                   |
|-------------|------------|-------------|-----------------------|-------------|------------------------------|
| 1           | M          | 8/24/2026   | Intro                 | none        | None                         |
| 1           | W          | 8/26/2026   | Science               | 1           | None                         |
| 1           | F          | 8/28/2026   | Science               | 1           | None                         |
| 2           | M          | 8/31/2026   | Measurements          | 1           | 1. Mass and volume           |
| 2           | W          | 9/2/2026    | Measurements / Quiz 1 | 1           | None                         |
| 2           | F          | 9/4/2026    | Time                  | 1           | None                         |
| 3           | W          | 9/9/2026    | Time                  | 1           | None                         |
| 3           | F          | 9/11/2026   | Relationships-vectors | 1           | None                         |
| 4           | M          | 9/14/2026   | Motion                | 1           | 2. Motion                    |
| 4           | W          | 9/16/2026   | Motion                | 1           | None                         |
| 4           | F          | 9/18/2026   | Motion / Quiz 2       | 1           | None                         |
| 5           | M          | 9/21/2026   | Newton and Motion     | 1           | 3. Centripetal force         |
| 5           | W          | 9/23/2026   | Newton and Motion     | 1           | None                         |
| 5           | F          | 9/25/2026   | Momentum              | 1           | None                         |
| 6           | M          | 9/28/2026   | Gravity               | 1           | 4. Work                      |
| 6           | W          | 9/30/2026   | Work-power            | 2           | None                         |
| 6           | F          | 10/2/2026   | Work / Quiz 3         | 2           | None                         |
| 7           | M          | 10/5/2026   | Energy in motion      | 2           | 5. Specific heat             |
| 7           | W          | 10/7/2026   | Energy in motion      | none        | None                         |
| 7           | F          | 10/9/2026   | Midterm Open Online   | none        | None                         |
| 8           | M          | 10/12/2026  | Heat                  | 2           | Midterm                      |
| 8           | W          | 10/14/2026  | Heat                  | 2           | None                         |
| 8           | F          | 10/16/2026  | Engine                | 2           | None                         |
| 9           | M          | 10/19/2026  | Engine                | 2           | 6. Magnetism and Electricity |
| 9           | W          | 10/21/2026  | Heat Transfer         | 2           | None                         |
| 9           | F          | 10/23/2026  | Electricity / Quiz 4  | 3           | None                         |
| 10          | M          | 10/26/2026  | Magnetism             | 3           | 7. Conductivity              |
| 10          | W          | 10/28/2026  | Charge Transfer       | 3           | None                         |
| 10          | F          | 10/30/2026  | Wave energy - sound   | none        | None                         |
| 11          | M          | 11/2/2026   | Wave energy - light   | none        | 8. Qualitative Analysis      |
| 11          | W          | 11/4/2026   | Atoms                 | 4           | None                         |
| 11          | F          | 11/6/2026   | Atoms / Quiz 5        | 4           | None                         |
| 12          | M          | 11/9/2026   | Mechanics             | 5           | 9. Acids and bases           |
| 12          | W          | 11/11/2026  | Periods               | 5           | None                         |
| 12          | F          | 11/13/2026  | Periods               | 8           | None                         |

| <b>Week</b> | <b>Day</b> | <b>Date</b> | <b>Topic</b>               | <b>Text</b> | <b>Lab</b>    |
|-------------|------------|-------------|----------------------------|-------------|---------------|
| 13          | M          | 11/16/2026  | Bonding                    | 6           | 10. Titration |
| 13          | W          | 11/18/2026  | Bonding / Quiz 6           | 6           | None          |
| 13          | F          | 11/20/2026  | Chemical Reactions         | 7           | None          |
| 14          | M          | 11/23/2026  | Solutions                  | 7           | None          |
| 15          | M          | 11/30/2026  | Nuclear                    | 8           | Lab Final     |
| 15          | W          | 12/2/2026   | Relativity                 | 12          | None          |
| 15          | F          | 12/4/2026   | Cosmos                     | 11          | None          |
| F           | W          | 12/9/2026   | Final Exam -Open<br>Online | all         | None          |