



**Course Syllabus: Physical Science**  
**Kimbell School of Geoscience**  
GNSC 1204 Section 101  
Fall 2020

**Contact Information**

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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.

**Textbooks**

Required: A new clean copy of the MSU lab book  
Top Hat subscription  
Science Matters: Achieving Science Literacy, 2<sup>nd</sup> Ed., ISBN: 978-0-307-45458-4  
Suggested: Conceptual Integrated Science: An introduction to the sciences, 2<sup>nd</sup> 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: Mr. Wesmond Williams

## Student Handbook

Refer to: [Student Handbook 2019-20](#)

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Cheating, collusion, and plagiarism (the act of using source material of other persons, either published or unpublished, without following the accepted techniques of crediting, or the submission for credit of work not the individual's to whom credit is given).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

## 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.

## Grading

Table 1: Points allocated to each assignment

| Components              | Points |
|-------------------------|--------|
| Quizzes (Top Hat)       | 10 %   |
| Participation (Top Hat) | 10 %   |
| Midterm Exam            | 11 %   |
| 2 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%       |

### 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. 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 are two journal opportunities for the class. These are assigned at an appropriate point in the lecture schedule (generally at 5 weeks and 14 weeks). Details will be provided on D2L.

### Mid-Term Exam

The Mid-term 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. 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 following 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.

## Hybridization

Fall 20 is a hybrid synchronous class, which permits optional face-to-face attendance on assigned days for the lecture. Lab sections will provide online preparation and assessment, and face-to-face activities for most meetings. Evaluation will largely be online.

This class typically provides online participation in two forms: D2L and Tophat. This semester will require a more extensive use of both for implementation. There will be a host of tools intertwined with D2L, including the LockDown Browser, Zoom meeting platform, and links to YouTube.

Because of fewer opportunities for face-to-face interaction, online communication is key. Please set your D2L profile to notify you, using a low-clutter email that you will check.

## 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.

## LockDown Browser + Webcam Requirement

This course requires the use of LockDown Browser and a webcam for online exams. The webcam can be the type that's built into your computer or one that plugs in with a USB cable.

Watch this brief video to get a basic understanding of LockDown Browser and the webcam feature.

<https://www.respondus.com/products/lockdown-browser/student-movie.shtml>

### Download Instructions

- Select the quiz in the course
- Under Quiz Requirements you will see "To take this quiz you must use the Respondus LockDown Browser"
- Below this will appear: "You can use the button below if you have not already downloaded LockDown Browser". Click the button to go to the download page and then follow the instructions
- Use the link to download Respondus LockDown Browser to your computer; follow the installation instructions
- Return to the Quiz page in Brightspace (it may still be open in another tab) and select the quiz
- Select "Launch LockDown Browser"

- The quiz will now start

Note: LockDown Browser only needs to be installed once to a computer or device. It will start automatically from that point forward when a quiz requires it.

### **Guidelines**

When taking an online quiz, follow these guidelines:

- Ensure you're in a location where you won't be interrupted
- Turn off all other devices (e.g. tablets, phones, second computers) and place them outside of your reach
- Before starting the test, know how much time is available for it, and also that you've allotted sufficient time to complete it
- Clear your desk or workspace of all external materials not permitted - books, papers, other devices
- Remain at your computer for the duration of the test
- If the computer, Wi-Fi, or location is different than what was used previously with the "Webcam Check" and "System & Network Check" in LockDown Browser, run the checks again prior to the exam
- To produce a good webcam video, do the following:
  - Avoid wearing baseball caps or hats with brims
  - Ensure your computer or device is on a firm surface (a desk or table). Do NOT have the computer on your lap, a bed, or other surface where the device (or you) are likely to move
  - If using a built-in webcam, avoid readjusting the tilt of the screen after the webcam setup is complete
  - Take the exam in a well-lit room, but avoid backlighting (such as sitting with your back to a window)
- Remember that LockDown Browser will prevent you from accessing other websites or applications; you will be unable to exit the test until all questions are completed and submitted

### **Getting Help**

Several resources are available if you encounter problems with LockDown Browser:

- The Windows and Mac versions of LockDown Browser have a "Help Center" button located on the toolbar. Use the "System & Network Check" to troubleshoot issues. If an exam requires you to use a webcam, also run the "Webcam Check" from this area
- [As applicable, insert information about your institution's help desk, including details about how to contact them. Some help desks want students to run the "System & Network Check" and the "Webcam Check" before they are contacted - and even, to forward the results of these checks at the time of opening a ticket.]
- Respondus has a Knowledge Base available from [support.respondus.com](https://support.respondus.com). Select the "Knowledge Base" link and then select "Respondus LockDown Browser" as the product. If your problem is with a webcam, select "Respondus Monitor" as your product
- If you're still unable to resolve a technical issue with LockDown Browser, go to [support.respondus.com](https://support.respondus.com) and select "Submit a Ticket". Provide detailed information about your problem and what steps you took to resolve it.

## 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). Please note that this tool is typically used in GNSC 1104 as well.

Top Hat is separate from D2L. It is important that when you register for Top Hat you use the first and last names used on D2L to correctly transfer your grade. Please also use an email address that you check frequently.

## Attendance

Attendance for lecture is required. Face-to-face attendance requires your full cooperation. Please show up early and leave only when excused. Follow all directives regarding entry and seating.

You are expected to be engaged in the lecture regardless of location or mode. The class will use an in-class quiz system which will monitor attendance either in lecture hall or online.

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, you will be either be dropped from the class or you will receive a failing grade.

During in-building participation, students must comply with MSU's requirement for wearing a face covering and any other safety directives dictated by the instructors.

Illness: If you are feeling ill, then you shouldn't be on campus. If illness interferes with your participating in remote learning, then you should do the following:

1. Email the professor through D2L; use "ill" in the subject line
2. Contact the health center or 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 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) exist 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](#)

## Grade Appeal Process

Update as needed. 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. This is not business-as-usual this semester...anticipate thoughtful changes as we move forward.

## Important Dates

Last day for term schedule changes: August 26

Deadline to file for Dec. graduation: September 28

Last Day to drop with a grade of "W:" December 4

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

## Proposed Topic Schedule

| Week | Day | Date | G | Topic                      | Text | Lab                  |
|------|-----|------|---|----------------------------|------|----------------------|
| 1    | M   | 8/24 | 1 | Intro                      | none | None                 |
| 1    | W   | 8/26 | 2 | Science                    | 1    | None                 |
| 1    | F   | 8/28 | 1 | Science                    | 1    | None                 |
| 2    | M   | 8/31 | 2 | Measurements               | 1    | 1. Mass and volume   |
| 2    | W   | 9/2  | 1 | Measurements               | 1    | 1. Mass and volume   |
| 2    | F   | 9/4  | 2 | Time/Quiz 1                | 1    | None                 |
| 3    | W   | 9/9  | 1 | Time                       | 1    | None                 |
| 3    | F   | 9/11 | 2 | Motion                     | 1    | None                 |
| 4    | M   | 9/14 | 1 | Motion                     | 1    | 2. Motion            |
| 4    | W   | 9/16 | 2 | Motion                     | 1    | 2. Motion            |
| 4    | F   | 9/18 | 1 | Newton and Motion / Quiz 2 | 1    | None                 |
| 5    | M   | 9/21 | 2 | Newton and Motion          | 1    | 3. Centripetal force |

| <b>Week</b> | <b>Day</b> | <b>Date</b> | <b>G</b> | <b>Topic</b>                | <b>Text</b>  | <b>Lab</b>                   |
|-------------|------------|-------------|----------|-----------------------------|--------------|------------------------------|
| 5           | W          | 9/23        | 1        | Newton and Motion           | 1            | 3. Centripetal force         |
| 5           | F          | 9/25        | 2        | Momentum                    | 1            | None                         |
| 6           | M          | 9/28        | 1        | Work                        | 2            | 4. Work                      |
| 6           | W          | 9/30        | 2        | Work                        | 2            | 4. Work                      |
| 6           | F          | 10/2        | 1        | Energy / Quiz 3             | 2            | None                         |
| 7           | M          | 10/5        | 2        | Energy                      | 2            | 5. Specific heat             |
| 7           | W          | 10/7        | 1        | Gravity                     | none         | 5. Specific heat             |
| 7           | F          | 10/9        | 2        | Gravity                     | none         | None                         |
| 8           | M          | 10/12       | A        | Online Exam 1               | 1-2          | Midterm                      |
| 8           | W          | 10/14       | 1        | Heat and temperature        | 2            | Midterm                      |
| 8           | F          | 10/16       | 2        | Heat and temperature        | 2            | None                         |
| 9           | M          | 10/19       | 1        | Heat and temperature        | 2            | 6. Magnetism and Electricity |
| 9           | W          | 10/21       | 2        | Electricity                 | 3            | 6. Magnetism and Electricity |
| 9           | F          | 10/23       | 1        | Electricity / Quiz 4        | 3            | None                         |
| 10          | M          | 10/26       | 2        | Electricity                 | 3            | 7. Conductivity              |
| 10          | W          | 10/28       | 1        | Waves, sound, light         | none         | 7. Conductivity              |
| 10          | F          | 10/30       | 2        | Waves, sound, light         | none         | None                         |
| 11          | M          | 11/2        | 1        | Waves, sound, light         | none         | 8. Qualitative Analysis      |
| 11          | W          | 11/4        | 2        | Atoms                       | 4            | 8. Qualitative Analysis      |
| 11          | F          | 11/6        | 1        | Atoms / Quiz 5              | 5            | None                         |
| 12          | M          | 11/9        | 2        | Periods                     | 5            | 9. Acids and bases           |
| 12          | W          | 11/11       | 1        | Periods                     | 5            | 9. Acids and bases           |
| 12          | F          | 11/13       | 2        | Radioactivity               | 8            | None                         |
| 13          | M          | 11/16       | 1        | Matter                      | 7            | 10. Titration                |
| 13          | W          | 11/18       | 2        | Bonds                       | 6            | 10. Titration                |
| 13          | F          | 11/20       | 1        | Chemical Reactions / Quiz 6 | 7            | None                         |
| 14          | M          | 11/23       | 2        | Chemical Reactions          | 7            | None                         |
| 15          | M          | 12/30       | 1        | Water and Solutions         | none         | Lab Final (online)           |
| 15          | W          | 12/2        | 2        | Water and Solutions         | none         | Lab Final (online)           |
| 15          | F          | 12/4        | 1        | Universe                    | 10/11        | None                         |
| F           | W          | 12/9        | A        | Online Final Exam - 8:00 AM | 1-8<br>10-11 | None                         |