



**NORTHWEST**  
MISSOURI STATE UNIVERSITY  
MARYVILLE | KANSAS CITY

Department of Natural Sciences

Physics 25-110-01, General Physics I Lecture, 3 Credit hours  
5-week Summer Session, 2021

Instructor: TBA Email: TBA  
Office hrs: By Appointment

Prerequisites: MATH 17-117 or MATH 17-118, or MATH 17-119, or MATH 17-120 or permission of instructor

Textbook and supplementary materials: *College Physics: Ninth Edition* by Serway & Vuille

**Course description:** This is a lecture course in general physics designed to provide the necessary background in physics to fill Northwest Core requirements and to fill general physics needs for pre-professional programs. Major topics covered are structure and properties of matter, motion, mechanics, work, energy, momentum, elasticity, waves, temperature and heat.

**Student learning outcomes:**

**Assessment methods:**

Use visuals, non-alphabetic text, and non-verbal components successfully within spoken and written texts	Exam Comprehensive Question(s)  Highly proficient @ >90% Proficient @ >70% Emerging proficient @ >60% Not proficient @ <60%
Assimilate, retain, and interpret information Elucidate solutions based on these conclusions with the ability to self-evaluate their effectiveness Recognize that this process is self-reflective and continuous Produce original expression of ideas	Diagnostic Exam  Highly proficient @ >90% Proficient @ >70% Emerging proficient @ >60% Not proficient @ <60%
Access and generate information using contemporary technologies Reorganize information for purpose	Completion of Homework  Highly proficient @ >90% Proficient @ >70% Emerging proficient @ >60% Not proficient @ <60%
Evaluate the difference between true and false beliefs, right and wrong actions, as well as those values that underlie artistic expression and make appropriate decisions based on these values Compare historical and cultural value perspectives recognizing similarities and conflicts	Final Course Grade  Highly proficient @ >90% Proficient @ >70% Emerging proficient @ >60% Not proficient @ <60%

**Instructional methods:**

This course will be delivered fully online, and all instructional materials and assessments outlined will be adapted for use through Canvas. This course will be taught as a lecture with some in-class activities, such as discussion, and videos, as well as expanding upon the material in the Powerpoints. Problem solving will also be covered in the course, such as how to break down word problems, and organizing data and equations.

**Graded course requirements:**

Homework	250 points (50 points/week)
Four (4) Exams	480 points (120 points/week)
Final Exam	240 points
Concept Diagnostic Test	30 points

TOTAL: 1000

**Grading scale:**

<u>Grade</u>	<u>Score Range</u>
A	900-1000
B	800-899.9
C	700-799.9
D	600-699.9
F	<599.9

**Course outline/major topics studied:**

These chapters will be split roughly evenly into the five week course.

Chapter	
2	<b>Motion in One-Dimension</b>
3	<b>Vectors and Two-Dimensional Motion</b>
4	<b>The Laws of Motion</b>
5	<b>Energy</b>
6	<b>Momentum and Collisions</b>
7	<b>Rotational Motion and the Law of Gravity</b>
8	<b>Rotational Equilibrium and Rotational Dynamics</b>
9	<b>Solids and Fluids</b>
10	<b>Thermal Physics</b>
11	<b>Energy in Thermal Processes</b>
12	<b>The Laws of Thermodynamics</b>
13	<b>Vibrations and Waves</b>
14	<b>Sound</b>

**Note:** Course schedule is subject to change with instructor notification and students will be responsible for abiding by these changes.

**Attendance:** Students are expected to attend all classes as specified in the course syllabi for each course. It is the responsibility of the student to promptly notify his or her instructor when unable to attend class. Please refer to the university policy on attendance at

<https://www.nwmissouri.edu/policies/academics/Attendance.pdf>

**Final exams:**

If an emergency occurs that prevents the administration of a course scheduled final examination, the final course grades will be calculated based on the work in the course completed to that point in time and the faculty member's considered judgment. Final exams will not be rescheduled, and a grade of "I" will not be given as a result of an institutional cancellation of a final examination. This final exam policy does not apply to online courses.

**Administrative drop:** An instructor may request the Office of the Registrar delete a student from a course roster if the student has not met the prerequisite for the course as stated in the catalog, or as a result of non-attendance in the course.

**Academic Administrative withdrawal:** When it is in the best interest of Northwest Missouri State University for a student to withdraw, a student will be given a W, put on administrative hold, and given notice that they are about to be withdrawn. This action will result in removal of all credits associated with courses that have yet to be completed in the semester in question and the student will be administratively withdrawn from the University. An Administrative Withdrawal does not affect the student's grade point average. Please refer to Northwest Missouri State University's Academic Administrative Withdrawal Policy at:

<https://www.nwmissouri.edu/policies/academics/Adding-Dropping-Withdrawals.pdf>

**University communications:** Students are expected to use their Northwest student email account for any electronic correspondence within the university. Students are also strongly advised to check their email and CatPAWS accounts on a regular basis.

**Academic integrity policy:** The students, faculty, and staff at Northwest endeavor to sustain an environment that values honesty in academic work, that acknowledges the authorized aid provided by and intellectual contributions of others, and that enables equitable student evaluation. Please refer to Northwest Missouri State University's Academic Integrity Policy at <http://www.nwmissouri.edu/policies/academics/Academic-Integrity.pdf>

**Learning or Living Accommodations Request Process:** Northwest Missouri State University complies with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 [ADA] and the ADA Amendments Act of 2008 [ADAAA]. If a student has a documented disability that qualifies under the ADA/ADAAA and requests accommodations, they should review the Accessibility and Accommodations webpage at <https://www.nwmissouri.edu/titleixequity/accessibility/index.htm> for guidance, including the accommodations application and supporting documentation requirements. Contact [ada@nwmissouri.edu](mailto:ada@nwmissouri.edu) or 660.562.1873 for further assistance. For the university policy on disability accommodation refer to <http://www.nwmissouri.edu/policies/student/Disability-Accommodation.pdf>

**Non-discrimination and anti-harassment policy:** Northwest Missouri State University is committed to maintaining an environment for all faculty, staff, students, and third parties that is free of illegal discrimination and harassment. Please refer to the Non-Discrimination and Anti-Harassment Policy at <http://www.nwmissouri.edu/diversity/titlevi.htm>

**Family Education Rights and Privacy Act (FERPA) policy:** Family Educational Rights and Privacy Act of 1974, as amended (commonly known as the Buckley Amendment), is a federal law which provides that colleges and universities will maintain the confidentiality of student education records. Please refer to the Family Educational Rights and Privacy Act (FERPA) Policy at <http://www.nwmissouri.edu/policies/academics/Family-Educational-Rights-and-Privacy-Act.pdf>

**COVID-19 Classroom Mitigation:** Northwest is committed to the health and safety of the University community and has therefore adopted COVID-19 mitigation policies. Every student must wear a face covering (such as a cloth facemask, bandana, scarf, neck gaiter, or medical mask) over their nose and mouth at all times in all academic building spaces, including classrooms (unless directed not to by the instructor), offices, hallways, and restrooms. Face shields may be worn in addition to, but not in place of, a face covering. Students without face coverings will not be allowed in the classroom until they comply with expectations. Students must also follow directions regarding entries, exits and furniture, and maintain at least 6 feet of social distancing whenever possible. Northwest further asks all students to practice good hygiene and not enter academic buildings or attend face-to-face classes when they feel sick or have been instructed to quarantine/isolate; students who miss class should communicate with their instructors. Students who do not comply with these requirements will be subject to standard disciplinary procedures according to the Northwest Student Code of Conduct (i.e. verbal and written warnings followed by a hearing, if necessary). We thank you for doing your part to maintain our learning environment and to protect the health of fellow Bearcats.

**Change in Course Delivery:**

It is our goal as a University to continue all courses as planned on campus. However, due to unforeseeable impacts of COVID-19, faculty and students must be prepared to move all courses to a remote/online learning format anytime during the semester, either permanently or for a short term. The type of format (synchronous or asynchronous) will be at the discretion of each faculty member. The University and faculty will communicate with students in the event such action is deemed necessary to preserve the health and safety of students and employees.

**Disclaimer:** Course schedule is subject to change and you will be responsible for abiding by any such changes. Your instructor will notify you of any changes.