

PHYSICS 191 – First-Year Seminar – Fall 2026

Course Times: 1:30 – 2:20 pm Wednesdays, 103 White Hall

Instructor: Prof. Mikel “Micky” Holcomb

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Office: 437 White Hall

Office hours: Tuesday & Thursdays 1:50 – 2:50 pm and Wednesday 4 – 5 pm

Course website: <https://community.wvu.edu/~miholcomb/phys191.html> (see for schedule)

EXPECTED LEARNING OUTCOMES: By the end of this course, students should be able to:

1. Find and use the campus resources, information, and support systems that help students succeed.
2. Identify study and learning strategies that work best for you and make adjustments when those strategies are not effective.
3. Explore how a physics degree can connect to a variety of careers, research opportunities, and future goals.
4. Develop meaningful connections within the physics department and the wider WVU community.
5. Reflect thoughtfully on the opportunities and challenges presented by emerging technologies such as artificial intelligence.

HOMEWORK: This class is designed to help you develop skills used by successful students and researchers: **planning your work, monitoring your progress, reflecting on what works for you, and making informed decisions about your academic and career path.** Most assignments are reflective and exploratory rather than evaluative, and are graded on engagement and thoughtfulness rather than “right answers.” The three written assignments described below can be submitted in the order of your choice. If one of the assignments is stressing you out, move on to another one for now. In my personal and professional experience, I do this frequently with work causing me stress, and my subconscious will mull over a problem and my brain will sometimes suddenly solve a hurdle when I least expect it. This is actually a known phenomenon in cognitive psychology, often referred to as *incubation* in problem solving, along with related concepts like *diffuse mode thinking* and *insight-based processing*.

GUIDED STUDY SESSION & REFLECTION: Early in the semester (recommended), you will complete a reflection on one focused study session for a current course and reflect on how you planned your time, stayed focused, monitored your understanding, and adjusted your approach. This assignment is intended to help you better understand your own study habits and strategies. You may use this assignment to study for an exam, work on a problem set, or complete another meaningful academic task.

CAREER INTERESTS & GOALS EXPLORATION: You will complete a short written assignment exploring your interests, strengths, and tentative career ideas, and how these might connect to opportunities within or beyond physics. This assignment is intentionally exploratory; you are not expected to have firm career plans. Instead, the goal is to begin thinking critically about how your coursework, skills, and experiences might support different paths. The American Institute of Physics has created a guidebook for physics majors called the Career Toolbox (<http://www.spsnational.org/careerstoobox/>). This is a great resource for physics undergraduates.

AI REFLECTION: Like it or not, AI is becoming an increasing part of our everyday lives. This assignment is designed to give you some practice with it and to reflect on some aspects. Clearly, AI can be used in many more ways that discussed in this assignment.

IN-CLASS REFLECTION WRITING: Several class meetings will include brief (approximately 5-minute) written reflections responding to prompts related to course topics, guest speakers, or your own academic experiences. These short reflections are designed to help you practice monitoring your learning, making connections, and articulating questions or uncertainties. Research shows that brief reflective activities help students learn complex subjects more effectively by identifying misconceptions, connecting new ideas to prior knowledge, and developing stronger problem-solving habits

END-OF-SEMESTER CAREER PLANNING PRESENTATION: At the end of the semester, you will give a short presentation synthesizing what you have learned about yourself, your interests, and potential academic or career pathways. Your presentation may address topics such as skills you want to develop, research or internship interests, possible career directions, and next steps. Evaluation will emphasize clarity of thought and evidence of reflection rather than polish or certainty.

PARTICIPATION: To get the most out of this class, your attendance is required. Come to class prepared with any pre-assignments and be ready to engage. All students who complete more than 80% of participation assignments will get full credit. Participation will take the form of both a short written reflection in class and asking questions and/or involvement in discussion.

GRADING:

In-class reflections: 20%

Guided Study Session & Reflection: 15%

AI Reflection Assignment: 15%

Career Interests & Goals Assignment: 15%

End-of-semester Career Planning Presentation: 15%

General engagement / attendance baseline: 20%

You will be guaranteed at least the following letter grades for these percentage grades in this course:

90-100%	A
80-90%	B
70-80%	C
60-70%	D
< 60%	F

Midterm grades will be based off of assignment one and your general engagement.

ACADEMIC INTEGRITY: The integrity of the classes offered by any academic institution solidifies the foundation of its mission and cannot be sacrificed to expediency, ignorance, or blatant fraud. Therefore, instructors will enforce rigorous standards of academic integrity in all aspects and assignments of their courses. For the detailed policy of West Virginia University regarding the definitions of acts considered to fall under academic dishonesty and possible ensuing sanctions, please see the West Virginia University [Academic Standards Policy](#). Should you have any questions about possibly improper research citations or references, or any other activity that may be interpreted as an attempt at academic dishonesty, please see your instructor before the assignment is due to discuss the matter.

SOCIAL JUSTICE: West Virginia University is committed to social justice. I concur with that commitment and expect to maintain a positive learning environment based upon open communication, mutual respect, and non-discrimination. West Virginia University does not discriminate on the basis of race, sex, age, disability, veteran status, religion, sexual orientation, color, or national origin. Please treat each other with respect. Any suggestions as to how to further such a positive and open environment in this class will be appreciated and given serious consideration. If you are a person with a disability and anticipate needing any type of accommodation in order to participate in this class, please advise me and make appropriate arrangements with Disability Services (304-293-6700).

SOME IMPORTANT DATES/REMINDERS:

Friday August 28 – Departmental Picture and Pizza Lunch at 12 noon

TBD Saturday in September - Departmental Picnic at 12 noon at Chestnut Ridge Park Red Maple Pavilion

Most Wednesdays in fall semester in G09 at 2:30 pm – Departmental Colloquium

Stay tuned for the holiday party date!

FACULTY: We have a very wide range of faculty in our department with different research and teaching specialties that allow us to offer a broad swath of courses and research projects. You will meet some of them in classes during your physics career with us, and several of them will be visiting class this semester. However, as part of your research experience this semester, I encourage you to find out about and talk to as many of these people as possible. You can find their email addresses and offices on our website (physics.wvu.edu).