

# PHYS 690

## Professional Skills for Physicists

### Spring 2024

<b>Class Hours:</b>	Fridays 10:30 – 11:20 AM in Physics 221
<b>Instructor:</b>	Matthew Pelton
<b>Office Hours:</b>	Fridays 11:20 AM – 12:00 PM or by appointment
<b>Office:</b>	Physics 218
<b>E-mail:</b>	mpelton@umbc.edu

### Course Objectives

The purpose of this course is to provide some of the practical skills necessary to succeed as a professional physicist in academia, government laboratories, industry, or elsewhere.

You will have succeeded in this course if, at the end of the semester, you

- have developed enhanced communications skills as required for professional presentations, publications, and proposals
- know how to effectively access and review the scientific literature
- have an enhanced understanding of issues related to scientific integrity
- have an enhanced understanding of career paths and how to achieve career success

### Assignments

There will be a homework assignment about once a week. Homework assignments and due dates will be posted on the Blackboard page. Assignments are to be submitted as PDF files on Blackboard before the start of the class on the day that they are due (except in the case of oral assignments to be presented during class).

The final writing assignment will be a “white paper,” or brief research proposal. This will be based on your Ph.D. thesis proposal, but will be in the style of a proposal to a funding agency.

There will also be a final oral presentation on the same topic, in the style of a (brief) departmental seminar. The content of the proposal must be original (*i.e.*, reflecting your own thoughts and ideas).

All the work that you turn in must be your own. For group assignments, it must be clear that you have made a substantial individual contribution to the assignment.

### Participation

The majority of class time will be spent on student presentations and discussions. The course will be successful only if all students participate fully in these discussions.

Participation will be graded based on attending classes on time, contributing substantially to the discussions, and conducting the discussions in a professional and respectful manner.

Absence from class is permitted only for documented, valid reasons such as illness, injury, legal obligations, required participation in university-sponsored events, religious observances, illness or death of an immediate family member, required military service, and compelling and unavoidable circumstances beyond your control. If you know in advance that you will be required to be absent, you are required to notify the instructor as soon as you are aware of the need to be absent. Being late for class is disruptive to the discussions and disrespectful to the other students in the class.

## Grading

Your final grade will be determined by a numerical score, calculated as follows:

Homework:	25%
Grant proposal:	25%
Oral presentation:	25%
Class participation:	25%

The course is Pass / Fail. You must score 80% or higher overall to pass.