## PHYSICS, B.S.

### WISCONSIN EXPERIENCE

# PHYSICS UNDERGRADUATE COLLOQUIUM

There is a weekly series of talks in the spring semester called "Physics Today," at which a topic of local research is described by one of the physics faculty. These are open and may be attended by anyone. They can also be taken as a course, PHYSICS 301 Physics Today. See the Course Guide for location and time.

### THE PHYSICS CLUB

The University Physical Society (UPS)—also known as the Physics Club—is a student organization for people interested in physics and related fields.

#### WHAT DOES THE PHYSICS CLUB DO?

The Physics Club organizes events such as seminars, tours, trips, and socials for its members. Physics Club volunteers also offer free drop-in tutoring to students in introductory physics and astronomy classes. In addition, we maintain subscriptions to science related magazines such as *Scientific American, Astronomy*, and *Physics Today*, which are kept in the club's room located at 2328 Chamberlin Hall. Every Friday afternoon, we meet with the physics colloquium speaker to learn about the process of becoming a scientist. In addition, UPS sponsors a variety of other events. For example, in the past, we have taken took a field trip to Fermilab, sponsored a racquetball tournament, and have frequently gathered for social events such as ice skating, movie night, and bowling.

# WHY SHOULD YOU JOIN THE PHYSICS CLUB?

By joining the Physics Club you'll be meeting many physics majors, who are, in general, really cool people to hang out with. If you are thinking about declaring a physics major, this is the place to come for helpful advice about taking classes and finding an undergraduate job in the physics department. If you join, you can get access to the Physics Club room, 2328 Chamberlin Hall. Joining also adds you to the club email list, so you can be notified about club sponsored events.

#### PERKS OF BEING A PHYSICS CLUB MEMBER

When you join the Physics Club, you get access to an excellent room, 2328 Chamberlin Hall. This room contains a refrigerator, reference shelves of textbooks, couch, tables, and chairs, a phone, blackboards, and a microwave. We have a several computers in the room. You can get your own key to the room and visit at your leisure, and stay as long as you like. Plus, you get the added bonus of knowing people who are in your classes.

#### **University Physical Society**

2328 Chamberlin Hall email: ups.officers@gmail.com

#### To Join:

Drop by Room 2328 Chamberlin Hall and pick up a membership form. Turn in a completed form with your annual dues to a UPS club officer.

# GENDER MINORITIES AND WOMEN IN PHYSICS

Gender Minorities and Women in Physics (GMaWiP) is a student organization open to undergraduates for the support and promotion of gender minorities and women in physics at UW–Madison. GMaWiP works to provide both professional development and support for women and gender minorities in physics at every step in their careers by taking concrete actions through the following methods:

- 1. Career Development
- 2. Mentorship
- 3. Fellowship
- 4. Outreach

In addition, they provide advocacy for other minorities in physics, including, but not limited to students of color, students with disability status, low-income students, and LGBT+ students. The group also hosts social events throughout the year aimed at building a sense of community among the members.

#### **GREAT IDEAS**

GMaWiP also hosts a bi-weekly GREAT IDEAS (Group for Reading, Educating, And Talking about Inclusion, Diversity, Equity, & Advocacy in Science) seminar. GREAT IDEAS is a multimedia reading group dedicated to amplifying the experiences of underrepresented groups in science and academia in order to become better advocates for our peers. GREAT IDEAS is open to everyone, and all are welcome and encouraged to engage with the material and contribute to the discussions.

#### UNDERGRADUATE MENTORSHIP PROGRAM

GMaWiP also provides a mentorship program for undergraduate students. This program connects the undergraduate with a graduate student who will advise and mentor the undergraduate as they work to obtain their degree. If you are interested in this mentorship program or are interested in getting involved with GMaWiP, please fill out this contact form (https://gmawip.physics.wisc.edu/?page\_id=72).

## PHYSICS LEARNING CENTER

The Physics Learning Center: Striving to help all students succeed in Physics

- Do you enjoy Physics?
- Are you patient?
- Do you like to teach?
- · Would you like to help other undergraduate students?

The Physics Learning Center (PLC) has job opportunities for physics undergraduates as Peer Mentor Tutors (PMT). The PLC is looking for PMTs who have a desire to help others learn physics and have an enthusiasm for learning new ways to solve physics problems.

The PLC provides supplemental instruction and a supportive learning environment to students in large challenging introductory physics courses. They include algebra-based Physics 103-104 and calculus-based 207-208 that are requisites for many STEM majors and pre-health professional pathways. The majority of students in these classes are not physics majors.

PMTs lead a learning team twice a week helping students build a conceptual framework to solve a variety of physics problems. The PLC strives to create a supportive learning environment to help students gain skills, increase confidence, and meet potential study partners .

Peer Mentor Tutors receive extensive training in teaching Physics and in general pedagogy. Tutors meet with a PLC staff member each week to discuss strategies for teaching course content, including how to useteaching materials that stress conceptual understanding. In addition, PMTs from all courses meet as a group for a weekly teaching seminar to discuss issues such as group dynamics, techniques for actively involving students in learning, helping students to prepare for exams, raising awareness of diversity in student experiences, resources on campus, etc.

Our Peer Mentor Tutors report that they greatly enjoy working with their students. In the process, they strengthen their own foundation in Physics and presentation skills .They also tell us that teaching Physics helps to review for the Graduate Record Exam and to prepare for post-graduate teaching in middle/high school or as a University teaching assistant .

PMTs are a mix of students majoring in physics, astrophysics, secondary science education, and engineering as well as from other majors. This is a paid position taking about eight hours per week that includes learning team time, content and pedagogy meetings, reviews before exams, and time to prepare for teaching.

To find out more about the PLC Peer Mentor Tutor Program, please contact us. The PLC is located in Chamberlin 2337/2338.

Physics Learning Center 2337/2338 Chamberlin Hall Contact: Susan Nossal nossal@physics.wisc.edu 608-262-9107