PHYS 1016: FULL COURSE DESCRIPTION

**NAME:** Collaborative Learning for Physics 2006

**CREDIT HOURS:** 1

**TIME:** Thursdays at the same time PHYS 2006 happens on MoTuWe\_\_Fr

* Like a “recitation day” for PHYS 2006!
* Offered annually in the spring semester

**PREREQS:**

* **1016:** must currently be enrolled in PHYS 2006, or have instructor permission to enter the course (this would be used for transfer students or exploratory students interested in physics)

**INSTRUCTOR DESCRIPTION:**

* The class should be predominantly peer-led by an approved upperclassmen (Junior or Senior Physics Major). The undergraduate instructor should be creative, approachable, flexible, and knowledgeable in what it is like to be a physics major. He/she will have to design lesson plans following the learning outcomes and suggested timeline of events.
* The faculty instructor on record should be the undergraduate program director for physics majors and may have an additional instructor from the physics department who is on campus frequently. The instructor of record should check in with the undergraduate leader frequently, or at least once a week to see how the class is going and oversee lesson plans.

**COURSE DESCRIPTION:**

This course is a continuation of PHYS-1015 in which students are provided with activities and experiences to improve their success in college and to explore and understand major and career options in the field of Physics. The primary focus is to increase individual learning and achievement in the study of Physics by utilizing collaborative learning and peer-led activities. Attendance and participation in discussions led by undergraduate students, graduate students, Physics department faculty, and external presenters will also be utilized. An emphasis in learning about undergraduate research opportunities will also be added to the class activities and presentations. Exploratory students or transfer students interested in physics as a major of study should contact the department for permission to enroll.

**LEARNING OUTCOMES:**

1. Use collaborative learning as a strategy for physics majors to develop a better understanding and mastery of the subject of physics and calculus. This is completed through utilization and practice of the thought processes and problem-solving skills necessary to be successful in physics.
2. Explain the demands, vast opportunities, and rewards of a career in Physics by identifying resources within the student’s chosen field and related fields.
3. Demonstrate the ability to identify resources to meet the student’s academic and personal needs to help achieve success in undergraduate coursework and have a manageable lifestyle.
4. Students will develop their understanding and appreciation of the undergraduate research process and necessary professional skills and conduct.

**SPECIAL NOTE:** An objective of this class is to increase the retention of majors as a key measure of the degree program. A goal is to reduce the stresses and intimidation of being a freshman physics major very early so they do not feel incapable of achievement in physics. This is an objective that is not presented to students.