CATALOGUE DESCRIPTION: This course is the laboratory component that accompanies PHYS 1301 and PHYS 2305.

PREREQUISITES: Required concurrent enrollment in or credit for General Physics (PHYS 1301) or Physics (PHYS 2305), as seen on student’s transcript approved by UIW Registrar and Physics Department Chair. Students should have fundamental skills in college algebra, trigonometry, functions and problem solving.

OVERVIEW: This course is the laboratory which accompanies the lecture section, and includes hands-on experiments as well as computer applications of concepts covered in the lecture section. Laboratory experiments include exercises on electricity, magnetism, light, geometric optics, interference and diffraction.

COURSE DESCRIPTION: (General) Physics Laboratory I engages the student in the techniques and ways of setting up an experiment, data collection, trial and error runs for data reproduction and verification, data analysis along with appropriate mathematical calculations, and analysis of findings and conclusions reached through experimentation. The data for experiments will be gathered through careful measurements verified through repeated runs, and analyzed for precision and accuracy through standard statistical analysis of data. The laboratory includes graphical analysis of data to note linear and non-linear relationships. This laboratory stresses the importance of making accurate and precise measurements based on the accepted international standards of length, mass, and time measurement. The laboratory focuses on topics including electrostatics, electrical circuits, magnetism and electromagnetism, light, optics of mirrors and lenses, interference and diffraction.

COURSE OUTCOMES: The student will be able to:
1. Make accurate and reproducible measurements involving experiments in Motion, Force, Energy, Momentum, Collisions, Harmonic Motion, etc.
2. Gather the proper material, supplies, and equipment, and properly set up the experiment
3. Collect and record data to repeat and verify experimental runs
4. Analyze data, discuss the results, and develop conclusions on the experiment and describe these conclusions
5. Use modern scientific and/or engineering tools

COURSE ASSESSMENT: Students will complete and turn in laboratory reports to verify completion of the experiment from setup through conclusions, and to verify data collection and analysis.

STUDENT CONDUCT AND ACADEMIC INTEGRITY STATEMENT
The University is committed to nurturing academic excellence, truth, honesty, and personal integrity. The faculty expects all students to maintain high ethical standards and adhere to the Code of Academic Integrity as stated in the UIW Undergraduate Bulletin. Please also refer to the
UIW Undergraduate Bulletin for statements regarding student conduct, class attendance, and Community Rights and Responsibilities at UIW.

**Disability Accommodations:**
The University of the Incarnate Word is committed to providing a supportive, challenging, diverse and integrated environment for all students. In accordance with Section 504 of the Rehabilitation Act – Subpart E and Title III of the Americans with Disabilities Act (ADA), the University ensures accessibility to its programs, services and activities for qualified students with documented disabilities.

For more information, contact the Student Disability Services Office:
Location Administration Building – Room 105
Phone (210) 829-3997
Fax (210) 829-6078
www.uiw.edu/sds

**Approval date:** Jan 2014

**Class Policies:**

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<th>Grade Distribution</th>
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<td>Attendance</td>
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<td>Lab Participation</td>
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Final letter grades will be determined at the end of the semester.

It is critically important that you work in group and actively participate in each section of the lab. You should bring a ‘real’ calculator for calculation purposes. No cell phones will be allowed during the lab. Please turn them off while you are in the lab. Ten points will be taken off each time from the Lab Participation grade upon finding a person using cell phone or similar devices.

Your final grade will be based on your grades for 8 (eight) labs. If you are absent from any lab session for any reason during the semester, you will receive a zero for that lab. This includes any kind of absence, both excused and unexcused. During week 12, you may be given an opportunity to take up to two additional labs during your regular weekly lab session. Your grades on the makeup labs will replace any of the zero grades for the labs you might have missed during the regular sessions. Note: The lab makeup session will only be offered in Week 12, and it will be offered to only who miss less than or equal to 2 labs. If you have missed more than 2 labs, and/or if you miss the makeup session, your final grade will still be based on 8 lab grades, i.e. no grade will be dropped.

**Only one lab manual per group will be turned in.** All the names of the group must be entered on the first page of the relevant lab, to earn credit, and all members of the group will get the same grade.

Labs begin **promptly** at your designated start time. You will **not** be allowed to participate in the lab once the lab set up begins. **Lateness**, as well as leaving before your group completes the lab, **will count as an absence.**