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Class Meeting Time: (RS211) 10:00-12:15 MTWR

Laboratory Meeting Time: (RS213) 1:30 MWR

Materials – *Physical Science*, 7th edition by Bill Tillery.

Course Description – Physical Science is a one-semester course designed to introduce you to physics and chemistry. The main topics are covered in two parts: Part I: motion, energy, heat, waves, electricity, and light; Part II: the atom, chemical bonds, chemical reactions, water and solutions, organic chemistry and nuclear reactions.

This course is one of the components of the General Education Program at Point Loma Nazarene University, under the category of *Exploring an Interdependent World*. By including this course in a common education experience for undergraduates, the faculty supports an introduction to the natural and social sciences as tools for exploring the world, with emphasis on collecting and interpreting empirical data for both theoretical and practical purposes.

Course Objectives – An emphasis is placed on both conceptual understanding and the ability to solve problems dealing with the concepts studied. To be successful in this course the student will develop critical thinking skills, problem solving techniques, communication skills, and the ability to work in a team. These skills will be demonstrated through exercises, labs, tests and the final exam.

Class meetings – There are 19 class meetings (9 physics meetings, 9 chemistry meetings, and the final exam). Learning physics and chemistry requires active learning and participation during class and lab. You are expected to attend all class and lab meetings. Please let us know in advance and in writing if you intend to be absent for a class meeting. If you miss a lecture you are responsible for everything covered (including announcements, schedule changes etc.) Absences, tardiness and early departures are used to determine borderline grades, and if absences become excessive (more than 3), then you must meet with me to discuss possible de-enrollment from the course.

Lab – Twelve labs are designed to give you hands-on experience with the concepts covered in class meetings. Lab will also provide an opportunity for you to use instruments common to the physical sciences, perform measurements, and analyze data using the scientific method. Labs comprise 25% of your final grade.

Exercises – Homework and in-class activities completed through the course will comprise 20% of your final grade.

Submission: Problems should be worked neatly in clear logical steps. (Solutions and explanations should be clear enough that one of your peers could easily follow what you did if they had not worked the problem before.) *Late Assignments will not be accepted*

Collaboration: I expect and encourage collaboration between you and your peers while working on your homework and in-class exercises but your work should be your own original solutions. Allow adequate time to work and think about problems by yourself first before you work together with your peers or ask questions of me. When you sit down to write up a problem, you should not use notes copied from someone else. The guideline is that you should have no trouble explaining or repeating work that you turn in.

Tests— Tests will count 35% toward your final grade. There will be four tests, two during each section. The final exam will be comprehensive and counts for 20% of your grade. Exams will be closed book. Partial credit will be given for correct reasoning at any step of a problem, but only if it is communicated clearly enough for me to understand. For problems that call for a solution or explanation, no credit will be given for an answer alone; the method or reasoning must also be shown.

Final Grades – The grade you earn in this course is based on the following scale: 100-90% A, 89-80% B, 79-70% C, 69-60% D. Plus and minus grades are given to students in the approximately top or bottom third of each category. The points you receive during the course are weighted accordingly: tests/quizzes 35%, lab 25%, final exam 20%, exercises 20%. Half of the points will come from the physics section and half will come from the chemistry section.

Academic Integrity – All students are expected to uphold the highest standards of honesty and integrity in their academic work. Cheating or plagiarism may result in an automatic failure in this course. There are no exceptions or second chances. See the PLNU Catalog, Vol. 92, p.61, for further details on attendance and academic honesty.

Academic Accommodations – While all students are expected to meet the minimum standards for completion of this course as established by the instructor, students with disabilities may require academic accommodations. At Point Loma Nazarene University, these students are requested to file documentation during the first two weeks of the semester with the Academic Support Center (ASC), located in the Bond Academic Center. This policy assists the University in its commitment to full compliance with Section 504 of the Rehabilitation Act and the Americans with Disabilities Act. Section 504 (a) prohibits discrimination against students with special needs and guarantees all qualified students equal access to and benefits of PLNU programs and activities. Once the student files documentation, the ASC will contact the student's instructors and provide written recommendations for reasonable and appropriate accommodations to meet the individual learning needs of the student.