COURSE TITLE: Introduction to Physical Science
COURSE NUMBER: PSC 1121

COURSE DESCRIPTION (with prerequisites):
A general education course involving an elementary study of the physical laws that govern the universe, and the characteristics of matter, including the changes it undergoes. Demonstrations and practical applications are emphasized. This course is not intended for science majors. Credit will not be granted to students who have previously received credit for CHM 1045 or above or any physics course. Prerequisite: Eligibility for MAC 1105. 3 semester hours credit.

NAME(S) OF INSTRUCTORS:
Dr. Jeff Bodart

EFFECTIVE ACADEMIC YEAR:
2012-13

REQUIRED TEXTBOOKS AND INSTRUCTIONAL SUPPLIES:
ISBN: 9780073512211

GRADING POLICY:
The standing of a student in each course is expressed by one of the following letters and corresponding grading system:
A – 90 – 100
B – 80 – 89
C – 70 – 79
D – 60 – 69
F – 59 or less
The Chipola Catalog provides policies and procedures regarding the grading system. A student’s Grade Point Average is derived from the grading system/quality point scale.

ATTENDANCE AND WITHDRAWAL POLICIES:
Chipola College expects regular attendance of all students. Students who are absent from classes for any reason other than official college activities must satisfy the instructor concerned that the absence was due to illness or other clearly unavoidable reasons. Otherwise, the student may suffer grade loss at the discretion of the instructor. Chipola policy allows each instructor to specify in the Instructor First Day Handout whether or not an absence is excusable and what affect the absence or tardy may have on the grade.
A student is allowed to repeat a course a maximum of three (3) times. **On the third attempt a student (1) must bear the full cost of instruction (unless waived by Student Services), (2) cannot withdraw, and (3) must receive a grade.**

**MAKE-UP POLICY:**
Chipola allows each instructor to specify in the Instructor First Day Handout the makeup policy.

**ACADEMIC HONOR CODE POLICY:**
Students are expected to uphold the Academic Honor Code. Chipola College’s Honor Code is based on the premise that each student has the responsibility to (1) uphold the highest standards of academic honesty in his/her own work; (2) refuse to tolerate academic dishonesty in the college community; and (3) foster a high sense of honor and social responsibility on the part of students. Further information regarding the Academic Honor Code may be found in the Chipola Catalog, Student Governance section.

**STUDENTS WITH DISABILITIES POLICY:**
Chipola College is committed to making all programs and facilities accessible to anyone with a disability. Chipola’s goal is for students to obtain maximum benefit from their educational experience and to effectively transition into the college environment. Students with disabilities are requested to voluntarily contact the Office of Students with Disabilities to complete the intake process and determine their eligibility for reasonable accommodations.

**LIBRARY AND ON-LINE REFERENCE MATERIALS:**
The library is a comprehensive learning resource center providing information in print, electronic, and multimedia format to support the educational objectives of the College. On-line catalogs, e-books and electronic databases can be accessed by using the LINCCWeb icon on the Chipola Library website at www.chipola.edu/library. If you have questions about database usage consult the “How to Use the Chipola Databases” on the Library website or call the Library at 850/718-2274 during regular hours. Library hours are posted each semester at the building entrance and on the Library website. See your Instructor First Day Handout for individual instructor recommendations and resources.

**TECHNOLOGY RESOURCES:**
The Information Technology Center, located in the library, is equipped with computer workstations. Lab hours are posted each semester at the building entrance and on the Library website. The ACE Lab, located in Building L, is available for tutoring and is equipped with computer workstations. Lab hours are posted each semester at the room entrance. The college’s learning management system is Desire 2 Learn (d2l). Classes become available on d2l on the first day of the semester. It is the student’s responsibility to log onto the d2l system the first day of class to establish the first day of attendance and to check announcements. For further information, contact your instructor or the Director of Online Learning.

**ELECTRONIC DEVICE USAGE:**
All electronic devices such as cell phones, beepers, pagers, and related devices are to be silenced prior to entering classrooms and/or laboratories to avoid disruption. Should
it become necessary for a student to leave his/her “device” on to send or receive an emergency call and/or text message, the student must inform the instructor prior to class. If the student finds it necessary to send and/or receive an emergency call and/or text message during class/lab time, he/she is instructed to take all books and belongings and step outside the classroom to deal with the situation. To minimize classroom disruption and the distraction to classmates, the student will not be permitted to reenter the classroom during that class period. Any time a test is being administered, all such devices must be turned off and put away. If a device is seen or heard during an exam, a score of zero will be given for that exam. Initial and repeated infractions may result in disciplinary action.

**DISCIPLINE SPECIFIC COMPETENCIES / LEARNING OUTCOMES:**

*Explore the History, Nature, Methods, and Limits of Science*

- **NS-1** Use methods of scientific investigation.
- **NS-2** Apply scientific principles.
- **NS-3** Identify scientific ideas related to the history or nature of science.
- **NS-4** Examine issues and problems facing modern science, such as ethics, values, and public policies.
- **NS-5** Identify relationships between science and technology.

**LINKING COURSE-LEVEL STUDENT LEARNING OUTCOMES WITH DISCIPLINE-SPECIFIC COMPETENCIES, ASSESSMENT METHODS, AND ARTIFACTS**

<table>
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<th>COURSE-LEVEL STUDENT LEARNING OUTCOMES FOR PSC 1121</th>
<th>DISCIPLINE-SPECIFIC GENERAL EDUCATION COMPETENCIES</th>
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<td>• Review systems of units used for physical measurements involving motion.</td>
<td>NS-1, NS-2, NS-3, NS-4, NS-5, M-1, M-2, M-3, M-4, M-5, C-2, H-1, T-1, T-3, SS-5</td>
<td>OT, PS, UT</td>
<td>Review information on and electronically submit a written report on a renewable energy technology including the history, examples of application, and calculations showing a comparison with gravitation</td>
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<td>• Identify the contribution made by Newton to modern theories of motion and gravity by quantitative application of Newton’s laws of motion.</td>
<td>NS-1, NS-2, NS-3, NS-4, NS-5, M-1, M-2, M-3, M-4, M-5, C-2, H-1, T-1, T-3, SS-5</td>
<td>OT, PS, UT</td>
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<td>• Describe the role of static and moving electric charges to explain the effects of electric and magnetic forces, and apply Ohm’s law to</td>
<td>NS-1, NS-2, NS-3, NS-4, NS-5, M-1, M-2, M-3, M-4, M-5,</td>
<td>OT, PS, UT</td>
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examine the energy provided by flowing currents in electrical circuits.

- Describe the transfer of momentum in collision problems and the exchange of potential and kinetic energies as mechanical work is done on a moving object.

- Review energy sources, energy flow, and energy uses relevant today

- Describe the periodic properties of matter and structure of the elements in the periodic table using properties of the electron configuration to predict chemical bonding and formula names.

**Assessment Codes**

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**Means of Accomplishing Student Learning Outcomes:**

Lecture is the primary method of instruction. Students are expected to be attentive and are encouraged to ask questions. Lecture will be primarily from the textbook and will be enhanced by overhead presentations, demonstrations, charts, models, and board illustrations. Students are responsible for any material contained within the assigned chapters of the textbook, as well as any material covered during lecture. Emphasis should be placed on the key terms, the review material at the end of each chapter and online material available on the Chipola website as a means of preparing for tests.

**Assignment and/or Course Outline**

See your Instructor First Day Handout for individual instructor assignment schedule.