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| **School or Division** | School of Pure and Applied Sciences |
| **Program or Certificate or** | All degrees |
| **New degree or certificate program** | List new degree or certificate program here |
| **Proposed by (faculty only)** | Marius Coman, Ph. D. |
| **Presenter (faculty only)** | Marius Coman, Ph. D. |
| Note that the presenter (faculty) listed above must be present at the Curriculum Committee meeting or the proposal will be returned to the School or Division and must be submitted for a later date. | |
| **Submission date** | 9/29/2014 |
| **Course prefix, number, and title** | PHY1020C: FUNDAMENTALS OF THE PHYSICAL WORLD |

**Section I, New Course Information (must complete all items)**

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| **List School or Division** | School of Pure and Applied Sciences |
| **List course prerequisite(s) and minimum grade(s) (must include minimum grade if higher than a “D”)** | SB 1720 Testing Exemption or successful completion of all Developmental courses |
| **Will students be taking any of the prerequisites listed for this course in different parts of the same term (ex. Term A and Term B)** | No |
| **List course corequisites** | None |
| **Is any corequisite for this course listed as a corequisite on its paired course?**  (Ex. CHM 2032 is a corequisite for CHM 2032L, and CHM 2032L is a corequisite for CHM 2032) | No |
| **Course credits or clock hours** | 3 |
| **Contact hours (faculty load)** | 3 |
| **Select grade mode** | Standard Grading (A, B, C, D, F) |
| **Credit type** | College Credit |
| **Course description** (provide below) | |
| FUNDAMENTALS OF THE PHYSICAL WORLD is designed to provide a broad foundation in physical concepts to non-science majors. It emphasizes how physicists approach the problem of describing nature in terms of physical theories and the importance of experimental tests. This course addresses topics in mechanics, heat energy, wave motion, light, electricity and magnetism, and includes elements of modern physics. This is a state designated general education core course in natural sciences. | |

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| **General topic outline** (type in outline below) |
| * Physical theories and the scientific method * Motion, force, work, energy, momentum and conservation principles * Heat as a form of energy, temperature and basic thermal processes * The interaction of light with matter and properties of light * Electricity and magnetism * Models of the atom and fundamentals of atomic physics |

**Learning Outcomes:** For information purposes only. Type in all learning outcomes, assessments, and general education competencies as they should be displayed in the syllabus. More rows can be added if necessary.

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| **Learning Outcomes** | **Assessments** | **General Education Competencies** |
| Recognize and justify the importance of measurements in scientific studies | 1.Quizzes and/or tests  2. Classroom task |  |
| Describe and analyze the concepts associated with motion, work, energy, momentum and use the conservation principles to investigate related phenomena. | 1.Quizzes and/or tests  2. Lab reports | CT, QR |
| Investigate light’s interaction with matter and use the observations to explain related phenomena in nature. | 1.Quizzes and/or tests  2. Lab reports | TIM |
| Describe and investigate the interaction between electric charges. | 1.Quizzes and/or tests  2. Lab report |  |
| Explain the relationship between electric and magnetic phenomena. | 1.Quizzes and/or tests  2. Classroom task | COM |
| Outline the development of the atomic theory, and the supporting experimental evidence. | 1.Quizzes and/or tests |  |
| Investigate wave formation/patterns and how they travel through space. | 1.Quizzes and/or tests  2. Lab report |  |

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| **ICS code for this course** | ADVANCED AND PROFESSIONAL - 1.11.19 - PHYSICAL SCIENCES |
| **Should any major restriction(s) be listed on this course? If so, select "yes" and list the appropriate major restriction code(s) or select "no".** | No |
| **Is the course an “International or Diversity Focus” course?** | No, not International or Diversity Focus |
| **Is the course a General Education course?** | Yes |
| **Is the course a Writing Intensive course?** | No |
| **Is the course repeatable\*?**  (A repeatable course may be taken more than one time for additional credits. For example, MUT 2641, a 3 credit hour course can be repeated 1 time and a student can earn a maximum of 6 credits).  \*Not the same as Multiple Attempts or Grade Forgiveness | No |
| **Do you expect to offer this course three times or less (experimental)?** | No |

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| **Impact of Course Proposal** | |
| **Will this new course proposal impact other courses, programs, departments, or budgets?** | No |
| **If the answer to the question above is “yes”, list the impact on other courses, programs, or budgets?** |  |
| **Have you discussed this proposal with anyone (from other departments, programs, or institutions) regarding the impact? Were any agreements made? Provide detail information below.** | |
| The proposal has been discussed among the physics faculty in the Department of Sciences, and is supported by the faculty. | |

**Section II, Justification for proposal**

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| **Provide justification (below) for this proposed curriculum action** |
| This is one of the state designated general education core courses in the natural sciences; adding this course to our curriculum increases the options our students have in covering their general education requirements by taking a course in the physical sciences. |

**Section III, Important Dates and Endorsements Required**

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| **List all faculty endorsements below. (Note that proposals will be returned to the School or Division if faculty endorsements are not provided).** |
| George Manacheril, Science Dept. Chair, Physics/Science Professor; Marius Coman |

**nOTE:** Changes for the Fall 2015 term must be submitted by the January 3, 2015 deadline and approved no later than the February 28, 2015 Curriculum Committee meeting. Changes during mid-school year are NOT permitted. Extreme circumstances will require approval from the appropriate Dean or Assistant Vice President as well as the Provost and Vice President of Academic Affairs to begin in either the Spring 2015 or Summer 2015 term.

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| **Term in which approved action will take place** | Fall 2015 |

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| **Required Endorsements** | **Type in Name** | **Select Date** |
| **Department Chair or Program Coordinator** | George Manacheril | 9/15/2014 |
| **Academic Dean or Assistant Vice President** | Theo Koupelis | 9/29/2014 |
| **Dean’s Council Representative** | Dr. Mary Myers | 1/6/2015 |

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| **Select Curriculum Committee Meeting Date** | January 23, 2015 |

Completed curriculum proposals must be uploaded to Dropbox by the deadline. Please refer to the *Curriculum Committee Critical Dates for Submission of Proposals* document available in the document manager in the FSW Portal:

* Document Manager
* VP Academic Affairs
* Curriculum Process Documents

**Important Note to Faculty, Department Chairs or Program Coordinators, and Deans or an Assistant Vice President:**

Incomplete proposals or proposals requiring corrections will be returned to the School or Division. If a proposal is incomplete or requires multiple corrections, the proposal will need to be completed or corrected and **resubmitted to the Dropbox for the next Curriculum Committee meeting** (no later than January 3, 2015 to be effective for the Fall 2015 term). All Curriculum proposals require approval of the Provost and Vice President of Academic Affairs. Final approval or denial of a proposal is reflected on the completed and signed Summary Report.