Wilkes University Curriculum Committee

PROPOSAL SUBMITTAL FORM

1. Originators:
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2. Proposal Title: Revisions to the Minor in Physics

3. Check only one type of proposal: (double click on the appropriate check box and change default value to “checked”).

   □ New Program. (Major or Minor Degree Programs). This requires prior review and approval by the Provost and APC.
   □ Elimination of Program. (Major or Minor Degree Programs). This requires prior review and approval by the Provost and APC.
   X Program Revision. Significant revisions to a program require review and approval by the Provost. The Provost determines if review and approval by APC is necessary.
   □ General Education Revision. Submissions only accepted from the General Education Committee (GEC). Must be reviewed and approved by the Provost.
   □ Creation of new departments, elimination of existing department. This requires prior review and approval by the Provost and APC.
   □ Course additions or deletions not affecting programs (such as elective courses, transition of “topics” courses to permanent courses).
   □ Change in course credit or classroom hours.
   □ Incidental Changes. Includes changes in course/program title, course descriptions, and course prerequisites. (Although these changes do require approval by the Curriculum Committee, they do not go before the full faculty for approval).
   □ Other (Specify)
4. Indicate the number of course modification forms that apply to this proposal:

- Course Addition Form (plus syllabi)
- Course Deletion Form
- Course Change Form

5. Executive Summary of Proposal.

With the addition of a BA in Physics we have had the pleasure of offering upper level physics courses to our current physics majors. We feel that these courses represent an important part of an education in physics and as such we would like to encourage our students to seek specialized knowledge in one area of advanced study. As such, we seek to modify the requirements for a Minor in Physics such that one of these new upper level physics courses is required.

Thus, a student must choose one of the following courses as an elective:

- PHY 311 Thermodynamics and Statistical Mechanics
- PHY 312 Analytical Mechanics
- PHY 314 Quantum Mechanics

Additional courses from this list can be used to fulfill the remaining 6 elective credits. Alternatively, students may choose any courses from the current list of approved electives (as published in the bulletin).

6. Other specific information. (Not applicable for incidental changes.)

The above-described amendments to the Minor in Physics will have no significant impact on other programs or require additional faculty resources. All of the courses that we suggest as requirements for the physics minor are already offered, and due to the level of specialization in these courses, we do not expect a large increase in course enrollment.
7. Program Outline. (Not applicable for incidental changes).
We seek to amend the description of the physics minor in the undergraduate bulletin as follows:

**Physics Minor**
Physics is the quest to understand the forces shaping our universe. For this reason, those who study physics are typically concerned with attaining a deep understanding of the fundamental properties and behavior of all natural phenomena as well as an ability to apply this knowledge to other courses of study. Physics forms the foundation of mechanical, civil, and electrical engineering and is also central to a mechanistic understanding of many aspects of chemistry, biology, and environmental science.

Wilkes University offers a minor in Physics, which requires the satisfactory completion of 20 hours as follows:

**Required Introductory Courses (11 credits)**
- PHY 201 General Physics I (4 credits)
- PHY 202 General Physics II (4 credits)
- PHY 203 General Physics III (3 credits)

**Required Advanced Courses (3 credits)**
One of the following:
- PHY 311 Thermodynamics and Statistical Mechanics (3 credits)
- PHY 312 Analytical Mechanics (3 credits)
- PHY 314 Quantum Mechanics (3 credits)

**Electives (6 credits)**
To be selected from the following:
- PHY 311 Thermodynamics and Statistical Mechanics (3 credits)
- PHY 312 Analytical Mechanics (3 credits)
- PHY 314 Quantum Mechanics (3 credits)
- CHM 251 Physical Chemistry I (3 credits)
- PHM 252 Physical Chemistry II (3 credits)
- EES 251 Synaptic Meteorology (4 credits)
- EES 280 Principles of Astronomy (4 credits)
- EE 337 Electricity and Magnetism I (4 credits)
- EGR 200 Introduction to Materials Science and Engineering (3 credits)
- ME 231 Statics and Dynamics I (3 credits)
- ME 321 Fluid Dynamics (3 credits)
- ME 322 Engineering Thermodynamics (3 credits)
8. Signatures and Recommendations. (please date)
   • Signatures of involved Department chair(s) and Dean(s) indicate agreement with the proposal and that adequate resources (library, faculty, technology) are available to support proposal.
   • If a potential signatory disagrees with a proposal he/she should write “I disagree with this proposal” and a signed statement should be attached to this submission.

Dr. T. Srinivasan, Interim Chair, Dept. of EE and PHY
Print Name/Title: Signature Date
Department chair(s) of all potentially affected programs

Dr. J. Ghorieshi, Interim Chair, Department of ME and EMGT
Print Name/Title: Signature Date
Department chair(s) of all potentially affected programs

Dr. Dale Bruns, Dean, College of Science and Engineering
Print Name/Title: Signature Date
Dean(s) of any potentially affected College/School.

Ms. Susan Hritzak, Registrar
Print Name: Signature Date
Registrar

Dr. Terese Wignot, Provost
Print Name: Signature Date
Provost (For new programs, significant revisions and revisions to the General Education Program revisions only).
   Provost should check here if this proposal is a program revision AND the significance of the revision requires review and approval by APC prior to Curriculum Committee.

Print Name: Signature Date
Chair, Academic Planning Committee. For new programs, program revisions sent via the provost. Signature indicates that the proposal has been reviewed and approved by APC.

Print Name: Signature Date
Chair, General Education Committee. For revisions to General Education program only. (Signature indicates that the proposal has been approved by GEC).