

Slippery Rock University of Pennsylvania – Curriculum Guide

Bachelor of Science in Mathematics – Physics Track

| LIBERAL STUDIES REQUIREMENTS (48-49 credits) | | | | |
|--|---------------------|---------------------------|-------|----|
| See Liberal Studies Guide for Goal and Enrichment choices | | | | |
| GOAL COURSE REQUIREMENTS | | | | |
| Complete Goal requirements as indicated below (39-40 credits) | | | | |
| ✓ | Course | Title | Cr | Gr |
| Basic Requirements - ENGL101&103 required if student entered SRU prior to Fall 2011. ENGL102 required if student entered SRU Fall 2011 forward. | | | | |
| | ENGL 101 <u>and</u> | College Writing I | 3 | |
| | ENGL 103 <u>or</u> | College Writing II | 3 | |
| | ENGL 102 | College Writing | 3 | |
| | COMM 200 | Public Speaking ★ | 3 | |
| | ENGL 210 | Interpreting Literature ★ | 3 | |
| The Arts | | | | |
| | Goal | | 3 | |
| Global Community (see Liberal Studies Guide for details) | | | | |
| | Goal – Non-US | | 3 | |
| | Goal – Non – US | | 3 | |
| | Goal – US | | 3 | |
| Human Institutions/Interpersonal Relationships | | | | |
| | Goal | | 3 | |
| Science, Technology & Math | | | | |
| | Goal – Sci | | ◇ 3 | |
| | Goal – Sci | | ◇ 3 | |
| | Lab – Sci | | ◇ 0-1 | |
| | Goal – Math | | ◇ 3 | |
| Challenges of the Modern Age | | | | |
| | Goal | | 3 | |
| ENRICHMENT COURSE REQUIREMENTS | | | | |
| Choose one course from three of the following Enrichment areas. (9 credits) | | | | |
| The Arts | | | | |
| | | | | |
| Global Community | | | | |
| | | | | |
| Human Institutions/Interpersonal Relationships | | | | |
| | | | | |
| Science, Technology & Math | | | | |
| | | | | |

| OTHER BASIC REQUIREMENTS | | | | |
|--|----------|-------------------|---|--|
| Check with your advisor or a current degree audit report to see if you have been exempted from this course. The credit earned in this course will not be counted toward the 120 credit hour minimum needed to earn a degree. | | | | |
| | ACSD 110 | Beginning Algebra | 3 | |

| COMPUTER COMPETENCY (for students entering Fall 2008 and after) | | | | |
|---|-------------|---|-------|--|
| Students must demonstrate "computer competency" by: | | | | |
| | Passed Exam | Pass Computer Competency Exam at SRU Orientation | | |
| OR | CPSC _____ | Complete one of the following courses: CPSC 100, 110, 130, 210 or PE 202 at SRU or another post-secondary institution | 1 - 3 | |

IMPORTANT CURRICULUM GUIDE NOTES

This Curriculum Guide is provided to help SRU students and prospective students better understand their intended major curriculum. Enrolled SRU students should note that the My Rock Audit may place already-earned and/or in progress courses in different, yet valid, curriculum categories. Enrolled SRU students should use the My Rock Audit Report and materials and information provided by their faculty advisors to ensure accurate progress towards degree completion. *The information on this guide is current as of the date below. Students are responsible for curriculum requirements at the time of enrollment at the University.*

- ★ Indicates this course may have a prerequisite. Please refer to the Undergraduate Online Catalog.
- ◇ Indicates this course may count as a Major Requirement and a Liberal Studies Requirement, **but you will only receive credit once towards your 120 credit total.**
- + Students must earn a 'C' or better in this course to register for any 300 level or above mathematics course.

Student's Name: _____ Date: _____

Advisor's Name: _____

| MAJOR REQUIREMENTS (57 credits) | | | | |
|---|------------|-------------------------------------|----|----|
| ✓ | Course | Title | Cr | Gr |
| Students must have a 'C' or better in the following three courses to register for any 300 Level or above mathematics course (10 credits) | | | | |
| | MATH 131 | Discrete Math ★ | 3 | |
| | MATH 230 | Calculus II ★ | 4 | |
| | MATH 235 | Modern Concepts of Mathematics ★ | 3 | |
| Required Mathematics Courses (19 credits) | | | | |
| | MATH 231 | Calculus III ★ | 4 | |
| | MATH 240 | Linear Algebra & Differential Eq ★ | 3 | |
| | MATH 309 | Linear Algebra ★ | 3 | |
| | MATH 313 | Introductory Analysis I ★ | 3 | |
| | MATH 314 | Introductory Analysis II ★ | 3 | |
| | MATH 325 | Abstract Algebra I ★ | 3 | |
| Required Mathematics Course (2 credits) | | | | |
| | MATH 491 | Mathematics Seminar ★ | 1 | |
| | MATH 491 | Mathematics Seminar ★ | 1 | |
| Choose at least two of the following (6 credits) | | | | |
| | MATH 301 | Differential Equations I ★ | 3 | |
| | MATH 302 | Differential Equations II ★ | 3 | |
| | MATH 315 | Numerical Analytics ★ | 3 | |
| | MATH 335 | Mathematical Modeling ★ | 3 | |
| | MATH 407 | Complex Variables ★ | 3 | |
| Required Electives – 300 level and above (Except for MATH 310) | | | | |
| Math 331/Phys 331 may count as a Math course or a Physics course, but not both (6 credits) | | | | |
| | MATH _____ | | | |
| | MATH _____ | | | |
| Required Physics Interest Area courses (11 credits) | | | | |
| | PHYS 211 | General Physics I/Lab ★ | 4 | |
| | PHYS 212 | General Physics II/Lab ★ | 4 | |
| | PHYS 213 | General Physics III/Lab ★ | 3 | |
| Physics Interest Area (3 credits) | | | | |
| Math 331/Phys 331 may count as a Math course or a Physics course, but not both | | | | |
| | PHYS 314 | Engineering Mechanics I: Statics ★ | 3 | |
| | PHYS 315 | Engineering Mechanics II: Dynamics★ | 3 | |
| | PHYS 325 | Analog & Digital Electronics ★ | 3 | |
| | PHYS 331 | Mathematical Methods of Physics ★ | 3 | |
| | PHYS 371 | Physical Optics ★ | 3 | |
| | PHYS 381 | Advanced Physics Laboratory★ | 2 | |
| | PHYS 385 | Computational Physics ★ | 3 | |
| | PHYS 411 | Modern Physics ★ | 4 | |

| COMPETENCY IN AN APPROVED COMPUTER PROGRAMMING LANGUAGE IS REQUIRED | | | | |
|---|---------|--|--|--|
| | COMPSCI | | | |

| NATURAL SCIENCE AND MATH COLLEGE-WIDE REQUIREMENTS | | | | |
|--|----------|----------------------------|---|--|
| Students must take the following four courses (12 credits) | | | | |
| | CHEM 107 | General Chemistry I ★◇ | 3 | |
| | CHEM 111 | General Chemistry I Lab ★◇ | 1 | |
| | MATH 225 | Calculus I★◇+ | 4 | |
| | PHYS 211 | General Physics I/Lab★◇ | 4 | |

| ELECTIVES (2-3 credits) | | | | |
|-------------------------|--|--|--|--|
| | | | | |

QPA REQUIREMENT
2.00 or higher Major QPA
2.00 or higher Overall QPA

