

Engineering Physics Curriculum Map
(see below for full program student learning goals and outcomes)

| Courses | Outcome 1 | Outcome 2 | Outcome 3 | Outcome 4 | Outcome 5 | Outcome 6 |
|--|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| PHYS 116: Physics I with Calculus Lec | X | X | X | | | X |
| PHYS 118L: Introductory Physics I LAB | X | X | X | X | X | X |
| PHYS 117: Physics II with Calculus Lec | X | X | X | | | X |
| PHYS 119L: Introductory Physics II LAB | X | X | X | X | X | X |
| PHYS 214: Modern Physics Lecture | X | X | X | | | X |
| PHYS 215: Modern Phys Tech & Measurement | | | | X | X | |
| PHYS 242: Electronic Circuits and Devices | X | X | X | X | X | X |
| PHYS322: Advanced Mechanics | X | X | X | | | X |
| PHYS323: Electrodynamics I | X | X | X | | | X |
| PHYS324: Electrodynamics II | X | X | X | | | X |
| PHYS330: Semiconductors & optoelectronic devices | X | X | X | | | X |
| PHYS350: Thermodynamics | X | X | X | | | X |
| PHYS422: Condensed Matter and Nuclear Physics | X | X | X | | | X |
| PHYS423: Quantum I | X | X | X | | | X |
| PHYS424: Quantum II | X | X | X | | | X |
| PHYS425: Advanced Topics: Math Phys | X | X | X | | | X |
| PHYS425: Advanced Topics: Medical Phys | X | X | X | | | X |
| PHYS 431: Experimental Methods in Physics | X | X | X | X | X | X |
| PHYS432: Photonics | X | X | X | | | X |
| PHYS250: Introduction to | X | X | X | X | | |

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| Labview | | | | | | |
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Goal 1: Develop qualitative skills

Program Outcome 1: Develop an integrated conceptual understanding of engineering physics concepts and demonstrate knowledge of the topics taught

Goal 2: Develop analytical / solving problem skills

Program Outcome 2: Develop analytical skills by demonstrating the ability of applying the acquired knowledge of the material to solve problems.

Goal 3: Develop interdisciplinary skills

Program Outcome 3: Apply acquired mathematical skills to solve engineering physics problems. Demonstrate proficiency in applying theoretical physics concepts to practical engineering applications.

Goal 4: Develop experiential laboratory / research skills

Program Outcome 4: Develop hands-on laboratory skills, including methods, data collection, error analysis, graphing and statistical methods.

Goal 5: Develop Communication skill

Program Outcome 5 (a): Write precise and concise scientific reports related to laboratory or research assignments.

Program Outcome 5 (b): Display proficiency in providing an oral presentation of an engineering physics related field.

Goal 6: Develop cultural integration of scientific disciplines

Program Outcome 6: Learn about History and current developments in the fields of Engineering Physics. Develop an adequate understanding of scientific progress, the evolution of technology and the role of science and technology in modern society.