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Dept: Physics and Mathematics

Degree: BS Phys, AA Math

PHY141: General Physics I

PHY141L: Introduction to Measurement I

PHY142: General Physics II

PHY142L: Introduction to Measurement II

PHY241: General Physics III

PHY241L: Introduction to Measurement III

PHY242: Modern Physics PHY251/L: Electronics PHY312: Dynamics

PHY321: Advanced Experimental Physics I PHY322: Advanced Experimental Physics II

PHY416: Quantum Mechanics PHY432: Electromagetism

PHY4YY: Advanced Research Proposal PHY492: Advanced Reseach Projects

PHY 4XX: Senior Seminar

6 credit hours of PHY numbered >300

MAT 151: Calculus and Analytic Geometry I MAT 152: Calculus and Analytic Geometry II MAT 201: Calculus and Analytic Geometry III

MAT 202: Differential Equations

MAT 2XX: Linear Algebra

MAT 3XX: Partial Differential Equations 3 credit hours of MAT numbered >231

CHE 111, 113: General Chemistry I, II

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| Fo C Mo (In | Principles and Foundations of Classical and Modern Physics (Including Basic Examples) | | | Ability to Generalize and Extend Theories for Complex Applications | | | Methods and Techniques of Experimental Physics including Error Analysis | | | lem So niques Skills | _ | | echnic munica Skills | | Relationship between Physics and other Sciences and with Society | | |
| E [1] Outcome Statement (E,I) | [2] Level (I, R, A) | L [3] Demonstrate (T, W, P, O) | [1] Outcome Statement (E,I) | [2] Level (I, R, A) | [3] Demonstrate (T, W, P, O) | [1] Outcome Statement (E,I) | [2] Level (I, R, A) | [3] Demonstrate (T, W, P, O) | [1] Outcome Statement (E,I) | E [2] Level (I, R, A) | [3] Demonstrate (T, W, P, O) | [i] Outcome Statement (E,I) | [2] Level (I, R, A) | [3] Demonstrate (T, W, P, O) | [1] Outcome Statement (E,I) | [2] Level (I, R, A) | [3] Demonstrate (T, W, P, O) |
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Semester:

Dept: Physics and Mathematics

Degree: BA Phys for Engineers, AA Math

PHY141: General Physics I

PHY141L: Introduction to Measurement I

PHY142: General Physics II

PHY142L: Introduction to Measurement II

PHY241: General Physics III

PHY241L: Introduction to Measurement III

PHY242: Modern Physics PHY251/L: Electronics PHY311: Statics PHY312: Dynamics

PHY321: Advanced Experimental Physics I PHY322: Advanced Experimental Physics II

MAT 151: Calculus and Analytic Geometry I MAT 152: Calculus and Analytic Geometry II MAT 201: Calculus and Analytic Geometry III

MAT 202: Differential Equations

MAT 2XX: Linear Algebra

MAT 3XX: Partial Differential Equations 3 credit hours of either MAT 3YY or 303

CHE 111, 113: General Chemistry I, II

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|---|------------------------|------------------------------|--|------------------------|------------------------------|---|------------------------|------------------------------|--------------------------------|----------------------------|------------------------------|--------------------------------|-----------------------------|------------------------------|--|------------------------|------------------------------|
| Principles and Foundations of Classical and Modern Physics (Including Basic Examples) | | | Ability to Generalize and Extend Theories for Complex Applications | | | Methods and Techniques of Experimental Physics including Error Analysis | | | | lem So miques Skills | _ | | echnica munica Skills | | Relationship between Physics and other Sciences and with Society | | |
| [1] Outcome Statement (E,I) | [2] Level (I, R, A) | [3] Demonstrate (T, W, P, O) | [1] Outcome Statement (E,I) | [2] Level (I, R, A) | [3] Demonstrate (T, W, P, O) | [1] Outcome Statement (E,I) | [2] Level (I, R, A) | [3] Demonstrate (T, W, P, O) | [1] Outcome Statement (E,I) | [2] Level (I, R, A) | [3] Demonstrate (T, W, P, O) | [i] Outcome Statement (E,I) | [2] Level (I, R, A) | [3] Demonstrate (T, W, P, O) | [1] Outcome Statement (E,I) | [2] Level (I, R, A) | [3] Demonstrate (T, W, P, O) |
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Semester:

Dept: Physics and Mathematics

Principles and

Foundations of

Classical and

Modern Physics

Ability to

Generalize and

Extend Theories

Degree: BA Phys AA Math

PHY141: General Physics I

PHY141L: Introduction to Measurement I

PHY142: General Physics II

PHY142L: Introduction to Measurement II

PHY241: General Physics III

PHY241L: Introduction to Measurement III

PHY242: Modern Physics

PHY312: Dynamics

PHY321: Advanced Experimental Physics

PHY322: Advanced Experimental Physics PHY4YY: Advanced Research Proposal

PHY491: Advanced Research Projects

PHY 4XX: Senior Seminar

(+6 hrs > 200)

MAT 151: Calculus and Analytic Geometry

MAT 152: Calculus and Analytic Geometry

MAT 201: Calculus and Analytic Geometry

MAT 202: Differential Equations

MAT 2XX: Linear Algebra

(+ 15 hrs whatever)

| | (Including Basic | | | for | Comp | lex | Physics including | | | Tech | niques | and | Communication | | | Sciences and with | | | |
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SELECTED PROGRAM OUTCOMES

Problem Solving

Technical

Methods and

Techniques of Experimental

Relationship

between Physics

and other

[1] OUTCOME STATEMENT:

The program outcome is (E) EXPLICITY or (I) IMPLICITLY stated in the course syllabus as being one of learning outcomes for this course.

[2] LEVEL OF CONTENT DELIVERY:

- (I) INTRODUCES- Students are not expected to be familiar with the content or skill at the collegiate or graduate level. Instruction and learning activities focus on basic knowledge, skills, and/or competencies and an entry-level complexity.
- (E) EMPHASIZES- Students are expected to possess a basic knowledge and familiarity with the content or skills at the collegiate or graduate level. Instruction and learning concentrates on enhancing and strengthening knowledge, skills, and expanding complexity.
- (R) REINFORCES- Students are expected to possess a strong foundation in the knowledge, skill, or competency at the collegiate or graduate level. Instructional and learning activities continue to build upon previous competencies and increased complexity.
- (A) APPLIES- Students are expected to possess an advanced level of knowledge, skill, or competency at the collegiate or graduate level. Instructional and learning activities focus on the use of the content or skills in multiple contexts and at multiple levels of complexity.

[3] ASSESSMENT/DEMONSTRATION OF LEARNING:

Students are asked to demonstrate their learning on the outcome through tests (T), written work (W), oral discussion/Presentation (O), and/or projects (P) and are provided with formal feedback.