

BACHELOR OF SCIENCE IN PHYSICS

Major Requirements Worksheet

2016-2017 Catalog

Name: _____

Student ID: _____

NOTE: This checklist is not intended to replace advising from the major department. Students should consult with the major advisor to determine the appropriate sequence of courses. This checklist is to inform students of major requirements and course prerequisites only. CSULB Enrollment Services prepares the Academic Requirements Report, which is the official graduation verification. **Pre-Physics majors must complete their GE Foundation courses, and the highlighted areas below all with a "C" or better and a cumulative GPA of 2.5, by 60 units to be considered for the major.**

The Bachelor of Science degree is designed for those interested in pursuing a M.S. or Ph.D. degree in physics or a related subjects, or immediate employment in industry.

Physics majors must have a "C" average in the major. Physics students must achieve a grade of "C" or better in each required course in the major.

Semester	Grade	Course #	Course Title	Prerequisites
		MATH 122	Calculus I (4)	Appropriate MDPT placement or MATH 111* and 113*
		MATH 123	Calculus II (4)	MATH 122*
		MATH 224	Calculus III (4)	MATH 123* or 222*
		MATH 247	Introduction to Linear Algebra (3)	MATH 123 or MATH 222
		PHYS 151	Mechanics and Heat (4)	<i>Pre/Corequisite:</i> MATH 122
		PHYS 152	Electricity and Magnetism (4)	PHYS 151; <i>Pre/Corequisite:</i> MATH 123
		PHYS 254	Applied Modern Physics (3)	PHYS 152 or EE 210; <i>Pre/Corequisite:</i> MATH 224
		PHYS 255	Laboratory on Modern Physics (1)	<i>Pre/Corequisite:</i> PHYS 254

*Requires a grade of "C" or better, please check the catalog for grade requirements.

Choose ONE of the following courses:

Semester	Grade	Course #	Course Title	Prerequisites
		BIOL 200	General Biology (4) OR	GE Foundation requirements
		BIOL 211	Evolution and Diversity (4) OR	<i>Pre/Corequisite:</i> CHEM 111A
		CHEM 111A	General Chemistry I (5)	A passing score on the CPT. <i>Corequisite</i> MATH 109 or higher

UPPER DIVISION COURSES (See major faculty advisor)

Take ALL of the following courses:

Semester	Grade	Course #	Course Title	Prerequisites
		PHYS 310	Analytic Mechanics (3)	PHYS 151. <i>Corequisite:</i> MATH 364A or 370A
		PHYS 320	Thermodynamics (3)	PHYS 152. <i>Pre/Corequisite:</i> PHYS 254
		PHYS 340A	Electricity and Magnetism I (3)	PHYS 152, 310. <i>Pre/Corequisite:</i> MATH 370A or 363A
		PHYS 340B	Electricity and Magnetism II (3)	PHYS 340A
		PHYS 350	Modern Physics (3)	PHYS 310; MATH 370A or 364A
		PHYS 360	Physics with Symbolic Algebra Software (3)	PHYS 254. <i>Pre/Corequisite:</i> MATH 247
		PHYS 380	Electronics (4)	PHYS 152
		PHYS 450	Quantum Physics I (3)	PHYS 310, 340A, 350
		MATH 364A	Ordinary Differential Equations I (3)	MATH 222 or 224 and <i>Pre/Corequisite:</i> MATH 247

Choose ONE of the following courses:

Semester	Grade	Course #	Course Title	Prerequisites
		PHYS 445	Physics Laboratory Course (3)	Check catalog for Prerequisites
		PHYS 446	Physics Laboratory Course (3)	Check catalog for Prerequisites
		PHYS 476	Physics Laboratory Course (3)	Check catalog for Prerequisites
		PHYS 480	Physics Laboratory Course (3)	Check catalog for Prerequisites

Choose 6 units of upper division physics electives:

Semester	Grade	Course #	Course Title	Prerequisites