

APPLIED PHYSICS

General Option

- This worksheet is intended for supplemental use only. The University will use your Academic Requirements Report (ARR) to track your graduation requirements, including those for your major. Please continue to check your ARR for accuracy.
- If your ARR requires a correction, please submit an ARR Correction Form at www.csusm.edu/academicadvising.
- All courses used for the major and preparation for the major must be completed with a grade of C (2.0) or higher.
- All non-articulated courses MUST be reviewed and approved by a Physics faculty advisor.
- A minimum of 18 units in Physics must be completed at CSUSM.

PREPARATION FOR THE APPLIED PHYSICS OPTION (44 UNITS)

Non-Physics Supporting Courses (25 units):

✓	Course	Units
<input type="checkbox"/>	CHEM 150: General Chemistry (*MATH 101, 105 or MATH Category 1 or 2)	4
<input type="checkbox"/>	CHEM 150L: General Chemistry Laboratory (^CHEM 150)	1
<input type="checkbox"/>	CS 111: Computer Science I (*MATH 125 or 160)	4
<input type="checkbox"/>	MATH 160: Calculus with Applications, I (*MATH 125, 126 or pass Math Placement Exam)	5
<input type="checkbox"/>	MATH 162: Calculus with Applications, II (*MATH 160)	4
<input type="checkbox"/>	MATH 260: Calculus with Applications, III (*MATH 162)	4
<input type="checkbox"/>	MATH 346: Mathematical Methods for Physics (*MATH 162, *MATH 260; fall only)	3

Lower-division Physics Courses (19 units):

✓	Course	Units
<input type="checkbox"/>	PHYS 100: Introduction to being a Physicist	1
<input type="checkbox"/>	PHYS 201: Physics of Mechanics & Sound (*MATH 160)	4
<input type="checkbox"/>	PHYS 202: Physics of Electromagnetism & Optics (*PHYS 201, MATH 162)	4
<input type="checkbox"/>	PHYS 203: Modern Physics (*PHYS 202 or 206; spring only)	4
<input type="checkbox"/>	PHYS 270: Introduction to Computational Physics (*PHYS 201, MATH 160, CS 111)	3
<input type="checkbox"/>	PHYS 280: Introduction to Electronics (*(EE 100 and PHYS 201) or PHYS 202 or PHYS 206)	3

UPPER-DIVISION CORE REQUIREMENTS (25 UNITS)

✓	Course	Units
<input type="checkbox"/>	PHYS 320: Classical Mechanics (*PHYS 201 or 205; ^MATH 346; fall only)	3
<input type="checkbox"/>	PHYS 321: Classical Electromagnetism (*PHYS 202 or 206 and MATH 260; fall only)	3
<input type="checkbox"/>	PHYS 323: Quantum Physics (*PHYS 203, ^MATH 346; fall only)	3
<input type="checkbox"/>	PHYS 324: Statistical Mechanics & Thermodynamics (spring only)	3
<input type="checkbox"/>	PHYS 421: Applied Electromagnetic Waves & Optics (*PHYS 321, MATH 346; spring only)	3
<input type="checkbox"/>	PHYS 422: Applied Solid State Physics (*PHYS 203, ^MATH 346; fall only)	3

*prerequisite; ^pre/co-requisite; ♦recommended preparation;
#may be used as an elective if not already used for Upper-division Core Requirements.

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<input type="checkbox"/>	PHYS 423: Quantum Mechanics (*PHYS 323; spring only)	3
<input type="checkbox"/>	PHYS 499B: Senior Laboratory Thesis (*instructor consent)	2

Select one of the following courses:

- PHYS 380 Applied Laboratory Techniques (*PHYS 203; odd spring only)
- PHYS 480: Advanced Applied Physics Laboratory (*PHYS 203; even spring only)

<input checked="" type="checkbox"/>	Course	Units
<input type="checkbox"/>		2

ELECTIVES FOR THE MAJOR (6 UNITS)

Select elective courses from the following list:

- PHYS/CE/EE 301: Digital Systems Design with HDL (*(EE 100 and CS 111) or (CS 231 and PHYS 202 or 206))
- PHYS/EE 303: Signals and Systems (3) (*PHYS/EE 280, ^MATH 346)
- PHYS 306: Introduction to Physics Education Research (3) (*PHYS 203)
- PHYS 342: Introduction to Astrophysics (3) (*PHYS 203)
- PHYS 380#: Applied Lab Techniques (2) (*PHYS 203; odd spring only)
- PHYS/CE/EE 402: Microcontroller Systems and Computer Interfacing (4) (*PHYS/EE/CE 301)
- PHYS 440: Biological Physics (3) (*PHYS 202 or 206; odd spring only)
- PHYS 442: Physical and Geometric Optics (3) (*PHYS 321)
- PHYS 480#: Advanced Applied Physics Laboratory (2) (*PHYS 203; even spring only)

Students may also take up to 6 units of elective coursework from another major in the natural or mathematical sciences, chosen in consultation with and pre-approved by the Physics faculty advisor. Examples of courses that may be taken are CHEM 402*, MATH 362*, or MATH 374*.

<input checked="" type="checkbox"/>	Course	Units
<input type="checkbox"/>		
<input type="checkbox"/>		

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