

PHYSICS, ASSOCIATE IN SCIENCE FOR UC TRANSFER

The Associate in Science in Physics for UC Transfer degree prepares students to pursue a Bachelor's degree in Physics at a University of California institution. This major provides students with a full two years of physics education as well as a strong foundation in math and chemistry. In addition, completion of the AS in Physics for UC Transfer degree allows students to defer for completion after transfer two courses in IGETC Area 3 (Arts and Humanities) and two courses in IGETC Area 4 (Social and Behavioral Sciences). Admission to the University of California is competitive; successful completion of this program does not guarantee acceptance to a UC campus.

Learning Outcomes

Upon successful completion of the program, students will be able to:

- Reason qualitatively and logically about physical phenomena using scientific models.
- Apply Newton's laws, thermodynamics, the laws of electricity and magnetism, quantum theory, and the principles of energy conservation to problems involving motion, heat, light, electro-magnetism, and matter.
- Use appropriate instruments to perform scientific experiments to analyze data to check agreements with theoretical predictions.

Associate in Science for UC Transfer Degree Major Requirements

Code	Title	Units
Required Core		
CHEM 1A	General Chemistry I	5
CHEM 1B	General Chemistry II	5
MATH 20A	Calculus with Analytic Geometry I	4
MATH 20B	Calculus with Analytic Geometry II	4
MATH 20C	Calculus of Several Variables	4
MATH 31	Linear Algebra	4
MATH 32	Differential Equations	4
PHYS 3A	Science and Engineering Physics I	4
PHYS 3B	Science and Engineering Physics II	4
PHYS 3C	Science and Engineering Physics III	4
TOTAL MAJOR UNITS		42
Additional Requirements ¹		20
Complete Competency Requirements and IGETC pattern, deferring for completion after transfer to UC two courses each in Area 3 (Arts and Humanities) and Area 4 (Social and Behavioral Sciences). All courses taken must be UC-transferable.		
Total Units		62

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Consult with a counselor for campus-specific admission requirements.

Please refer to the graduation requirements section of the Catalog for information about degree and certificate requirements including Reading and Writing, Mathematics, Information Competency, and General Education requirements.

The model sequence of coursework below is one pathway for students to complete the program. The information below is not an official educational plan. An MPC Counselor can assist you with creating a personalized education plan based on your academic, career, and personal goals. Visit MPC's Counseling website for more information about Counseling and up-to-date program requirements.

Year 1

Fall		Units
ENGL 1A or ENGL 1AE	College Composition or College Composition: Enhanced	3
LIBR 50	Introduction to Library and Research Skills	1
MATH 20A	Calculus with Analytic Geometry I	4
CHEM 1A	General Chemistry I	5
IGETC Area 3 (US-1 Course Recommended)		3
Units		16

Spring

ENGL 2	Argumentative Writing and Critical Thinking	3
MATH 20B	Calculus with Analytic Geometry II	4
CHEM 1B	General Chemistry II	5
PHYS 3A	Science and Engineering Physics I	4
Units		16

Year 2

Fall

MATH 20C	Calculus of Several Variables	4
MATH 31	Linear Algebra	4
PHYS 3B	Science and Engineering Physics II	4
IGETC Area 4 (US-2 & 3 Course Recommended)		3
Units		15

Spring

MATH 32	Differential Equations	4
PHYS 3C	Science and Engineering Physics III	4
IGETC Area 5B		3
IGETC Area 6 (UC Requirement) or Electives (CSU/UC Transferable)		2
Units		13
Total Units		60

The Associate Degree for UC Transfer has the goal of creating a Transfer Pathway for students to transfer into the University of California system to complete a bachelor's degree. The Pathway provides a clear roadmap and preparation for UC's most sought-after majors, comprising a single set of courses to take for completion of lower-division major requirements that transfers to any of the nine UC undergraduate campuses.

The Transfer Pathway program permits students to defer for completion after transfer four courses in the IGETC pattern (two in Area 3 Arts and Humanities, and two in Area 4 Social and Behavioral Sciences). Admission to the University of California is competitive; successful completion of the Associate Degree for UC Transfer does not guarantee acceptance to a UC campus.

The following Associate Degree for UC Transfer requirements must be completed to earn the degree:

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1. Minimum of 60 UC-transferable semester units
2. Minimum grade point average (GPA) of 3.5 in all UC-transferable coursework
3. Completion of a minimum of 18 semester units as detailed in the Major Requirements
4. Completion of all courses in the major with a grade of C or better (or a "P" if the course is taken on a "Pass/No Pass" basis)
5. Certified completion of the Intersegmental General Education Transfer Curriculum (IGETC) pattern
6. Minimum of twelve units completed at Monterey Peninsula College, with at least six in the major
7. Graduation competencies:
 - a. Reading and writing
 - b. Mathematics
 - c. Information competency

All students should consult with a Counselor to discuss transfer pathways and specific campus admission requirements. Visit MPC's Counseling website for more information about Counseling services provided by MPC and to connect with a Counselor.