

# PHYSICS - ASSOCIATE IN SCIENCE TRANSFER DEGREE

Plan Code: 5540C

The Physics Associate Degree for Transfer will prepare students for transfer to a University of California (UC) or California State University (CSU) program in Physics while meeting the minimum lower division admission requirements (60 transferable units). Completion of these classes also provides a foundation for programs in Physical Science, Engineering and Math.

## Program Student Learning Outcomes

- Demonstrate the ability to attain the Institutional Student Learning Outcomes (ISLOs).
- Analyze problems and formulate solutions using a combination of graphs, drawings, equations, and conceptual reasoning at the appropriate level.

## Program Requirements

This degree requires the completion of General Education coursework plus the following:

Code Number	Course Title	Units
<b>REQUIRED CORE COURSES</b>		
MATH 60/60H	First Calculus Course	5
MATH 70/70H	Second Calculus Course	5
MATH 80	Third Calculus Course	5
PHYS 3A	Physics for Sci. & Eng. - Mechanics	5.5
PHYS 3B	Physics for Sci. & Eng. - E & M	4.5
PHYS 3C	Physics for Sci. & Eng. - Modern Physics	4.5
<b>Required Subtotal</b>		<b>29.5</b>
Complete the following: <sup>1</sup>		37
IGETC Pattern (Plan C) ( <a href="https://lbcc-public.courseleaf.com/academic-requirements/general-education-transfer-degree-certificate-requirements/general-education-plans/plan-c/">https://lbcc-public.courseleaf.com/academic-requirements/general-education-transfer-degree-certificate-requirements/general-education-plans/plan-c/</a> )		
Transferable Electives (as needed to reach 60 transferable units) <sup>2</sup>		
<b>Degree Total</b>		<b>60</b>

<sup>1</sup> Units for the major may be double-counted for IGETC; see counselor for limitations.

<sup>2</sup> Elective units from course(s) numbered 1-99, if needed, to reach 60 transferable units.

To earn the Physics - Associate in Science Transfer Degree, a student must complete 60-semester units that are eligible for transfer to a CSU that consist of the IGETC pattern and the major requirements. Students must have a minimum GPA of 2.0 in all CSU-transferable coursework to receive an associate degree for transfer and all courses in the major must be completed with a C or better. Students earning an associate degree for transfer will not be required to complete any other local graduation requirements.

# UCTP IN PHYSICS - ASSOCIATE IN SCIENCE UC TRANSFER DEGREE

Plan Code: 5539C

The University of California Transfer Pathways (UCTP) in Physics is designed to prepare students for transferring into a science or engineering-intensive major at a University of California school. This degree gives students a foundational knowledge in calculus-based physics and the calculus required to understand it, which is the prerequisite to many STEM fields. Students who complete this degree will have completed most or all of their underclassman requirements and be qualified for many internship programs in local industries.

## Program Student Learning Outcomes

- Demonstrate the ability to attain the Institutional Student Learning Outcomes (ISLOs).
- Analyze problems and formulate solutions using a combination of graphs, drawings, equations, and conceptual reasoning.

## Program Requirements

This degree requires the completion of General Education<sup>1</sup> coursework plus the following:

Code Number	Course Title	Units
<b>REQUIRED CORE COURSES</b>		
CHEM 1A	General Chemistry	5.5
CHEM 1B	General Chemistry	5.5
PHYS 3A	Physics for Sci. & Eng. - Mechanics	5.5
PHYS 3B	Physics for Sci. & Eng. - E & M	4.5
PHYS 3C	Physics for Sci. & Eng. - Modern Physics	4.5
MATH 60/60H	First Calculus Course	5
MATH 70/70H	Second Calculus Course	5
MATH 80	Third Calculus Course	5
MATH 84	Intro Differential Eqns and Linear Alg	5
<b>Subtotal Units</b>		<b>45.5</b>
IN ADDITION, complete the following IGETC General Education Requirements: <sup>1</sup>		
IGETC Pattern (Plan C) ( <a href="https://lbcc-public.courseleaf.com/academic-requirements/general-education-transfer-degree-certificate-requirements/general-education-plans/plan-c/">https://lbcc-public.courseleaf.com/academic-requirements/general-education-transfer-degree-certificate-requirements/general-education-plans/plan-c/</a> ) <sup>2</sup>		
Area 1A: Freshman Composition (one course)		
Area 1B: Critical Thinking (one course)		
Area 3: Arts and Humanities (one course)		
Area 4: Social and Behavior Science (one course)		
Area 5B: Biological Science (one course)		
Area 6: Language other than English (one course)		
<b>Subtotal IGETC Units:</b>		<b>16-20</b>
<b>Degree Total</b>		<b>61.5-65.5</b>

<sup>1</sup> The remaining IGETC requirements of two courses in Area 3 and two courses in Area 4 to be completed after transfer to the University of California to complete the entire IGETC pattern.

<sup>2</sup> Units for the major may be double-counted for IGETC; see counselor for limitations.

To earn the UCTP in Physics - Associate in Science UC Transfer Degree, a student must complete a minimum of 60-semester units that are eligible for transfer to a UC that consist of the IGETC pattern and the major requirements. Students must have a minimum GPA of 2.0 in all UC-transferable coursework to receive an associate degree for transfer and all courses in the major must be completed with a C or better. Students earning an associate degree for transfer will not be required to complete any other local graduation requirements.