



Cerritos College

PHYSICS

Transfer Preparation

COMMON LOWER DIVISION PREPARATION FOR CALIFORNIA STATE UNIVERSITY AND UNIVERSITY OF CALIFORNIA

			UNITS
MATH	170	Analytic Geometry and Calculus I	4
MATH	190	Analytic Geometry and Calculus II	4
MATH	220	Analytic Geometry and Calculus III	4
PHYS	201	Engineering Physics	4
PHYS	202	Engineering Physics	4
PHYS	203	Engineering Physics	4

ADDITIONAL LOWER DIVISION MAJOR PREPARATION FOR SPECIFIC TRANSFER INSTITUTIONS

California State University - Dominguez Hills (General Physics Option)

CHEM	111	General Chemistry	5
CHEM	112	General Chemistry	5
CIS	183	JAVA Programming	3
or CIS	186	Visual Basic.Net Programming	(3.5)

NOTE: Students transferring with this major should have completed three semesters of calculus: MATH 170, 190, 220 and two semesters of Physics and one semester of General Chemistry.

(Physical Science Option)

CHEM	111	General Chemistry	5
CHEM	112	General Chemistry	5
GEOL	101	Physical Geology	
or GEOL	102	Physical Geology	(3)
and GEOL	102L	Physical Geology	(1)
GEOL	201	Earth History	4
CIS	101	Introduction to Computer Information Systems	3
or CIS	186	Visual Basic . Net Programming	(3.5)
or CIS	183	JAVA Programming	(3)

(Electrical Engineering Option)

CHEM	111	General Chemistry	5
CHEM	112	General Chemistry	5
CIS	183	JAVA Programming	3

California State University – Fullerton

CHEM	111	General Chemistry	5
CHEM	112	General Chemistry	5

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NOTE: For an emphasis in Business student do not need to take Physics 203 and Chemistry 112 should be substituted with Accounting 101 and 133.

California State University - Long Beach (Bachelor of Science in Physics)

BIOL	120	Introduction to Biological Science	4
or BIOL	200	Principles of Biology	(5)
and BIOL	201	Principles of Biology	(5)
or CHEM	111	General Chemistry	(5)
MATH	250	Linear Algebra & Differential Equations	3

NOTE: To be considered for admissions as a Physics (BA/BS) major to CSULB, students must complete Math 170 and have an overall CSU transferrable GPA of at least a 2.25.

California State University - Los Angeles

Does not require the completion of Physics 203 for any of their Physics major options

*(Bachelor of Arts in Physics)

CHEM	111	General Chemistry	5
CHEM	112	General Chemistry	5
ENG	103	Critical and Argumentative Writing	3
MATH	250	Linear Algebra and Differential Equations	5

*(Bachelor of Science in Physics)

ENG	103	Critical and Argumentative Writing	3
CHEM	111	General Chemistry	5
CHEM	112	General Chemistry	5

* An option in Biophysics is available, please see a counselor for more information on major preparation.

California State Polytechnic University – Pomona

BIOL	120	Introduction to Biological Science	4
CHEM	111	General Chemistry	5
CHEM	112	General Chemistry	5
CIS	180	Programming in C/C++	3
MATH	250	Linear Algebra and Differential Equations	5

University of California – Irvine

CIS	180	Programming in C/C++	3
or CIS	183	JAVA Programming	(3)
or CIS	280X	Object-Oriented Programming in C++	(3.5)
MATH	250	Linear Algebra and Differential Equations	5

The following courses are required before transfer (to be most competitive): **one year Calculus and one year of Calculus-based Physics with laboratory for Engineering and Physics major. Transfer students must have a cumulative UC GPA of 3.0 or higher for admissions consideration.** Concentrations are offered in: Applied Physics, Biomedical Physics, Computational Physics, Philosophy of Physics, Physics Education and Astrophysics.

See counselor for specific concentration requirements.

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University of California - Los Angeles

*(Bachelor of Arts in Physics)

CHEM	111	General Chemistry	5
MATH	250	Linear Algebra and Differential Equations	5

*(Bachelor of Science in Physics)

CHEM	111	General Chemistry	5
MATH	250	Linear Algebra and Differential Equations	5

NOTE: The Physics articulation is approved as a sequence (201+202+203).

At minimum, you must complete one year and one half year of calculus with analytical geometry through multivariable calculus and one year of calculus-based physics (mechanics, electricity and magnetism). All preparatory courses must be completed by the spring term prior to transfer. All courses must be taken for a letter grade.

CAREER OPPORTUNITIES:

Physics graduates with their Bachelor's Degrees qualify for graduate studies in Physics. Physicists find rewarding careers in teaching Physical Sciences, medicine, and industrial and governmental scientific endeavors.

See Cerritos College Graduation Requirements.

See California State University General Education List.

IMPORTANT NOTICE: *The requirements listed for major are subject to change without notice. It is the student's responsibility to check for the most recent information with a Cerritos College counselor or by consulting ASSIST at www.assist.org.*

NOTE: *Courses listed may require prerequisite coursework.*

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ASSIST

How to use **ASSIST** to find your major preparation for CSU/UC:

1. **Log on:** www.assist.org
2. **Select an Institution:** select "Cerritos College" or other community college from pull-down menu
3. **Select:** "Type of Transfer Institution" such as "UC Los Angeles"
4. **Select a major from pull-down menu**
Report will show the university courses on the left and comparable community college classes on the right.
5. **PRINT:**-print by clicking on gold "**PRINT THIS REPORT**" button on top. Then use the **ASSIST** screen menu on the top toolbar or click on the printer icon that will appear at the bottom of the page.

How to use **ASSIST** to explore the majors available at University of California and California State University campuses

- Click on "EXPLORE MAJORS"

How to use **ASSIST** to figure out whether courses from the community college are transferable to the CSU/UC.

- Select the community college of interest (Cerritos College)
- Select either CSU transferable courses or UC Transferable courses
- Select a department for the courses in question

*USC Articulation available at:

www.usc.edu/articulation and **Select:** "TRANSFER PLANNING GUIDE."

IMPORTANT:

Students are advised to contact a Cerritos College counselor for more information & for details regarding other transfer agreements & options not available on ASSIST. Students can stop by the counseling desk to make an appointment or call (562) 860-2451 ext. 2231.