CERRITOS COLLEGE
MATHEMATICS
TRANSFER PREPARATION

IMPORTANT NOTICE: **The requirements listed for the 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.**

COMMON LOWER DIVISION PREPARATION
FOR CALIFORNIA STATE UNIVERSITY

			UNITS
MATH	170	Analytic Geometry and Calculus I	4
MATH	190	Analytic Geometry and Calculus II	4
MATH	225	Calculus III	5

ADDITIONAL LOWER DIVISION
MAJOR PREPARATION
FOR SPECIFIC TRANSFER INSTITUTIONS

CALIFORNIA STATE UNIVERSITY – DOMINGUEZ HILLS
Complete the Common Lower Division Preparation for the California State University listed above, plus:

CIS	183	Java Programming	3.5
CIS	185	Discrete Structures	3
PHYS	201	Engineering Physics	4
PHYS	202	Engineering Physics	4
PHYS	203	Engineering Physics	4
RECOMMENDED:			
CIS	282	Advanced Java Programming	3.5

For consideration of the MATH EDUCATION OPTION, be sure to incorporate the lower division preparation courses listed above, as well as:

MATH	112	Elementary Statistics	4

CALIFORNIA STATE UNIVERSITY – FULLERTON
Complete the Common Lower Division Preparation for the California State University listed above, plus:

MATH	250	Linear Algebra & Differential Equations	5
CIS	180	Programming in C/C++	3.5
or CIS	280x	Object Oriented Programming in C++	(3.5)

Additionally, students are required to complete coursework from one of eight possible "cognates" in the areas of Chemistry, Civil Engineering, Computer Science, Economics, Finance, Information Systems & Decision Sciences, Physics, and Research. All courses required for the major must be completed with a "C" or higher. Required courses may not be taken for Pass/No Pass.

CALIFORNIA STATE UNIVERSITY – FULLERTON-(cont.)

CERRITOS COLLEGE
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Each student is required to complete one of the following concentrations: Actuarial Science, Applied Mathematics, Probability & Statistics, Pure Mathematics, and Teaching Mathematics. Consult with Counselor to determine the most applicable pathway for your preferred area of concentration.

CHEMISTRY COGNATE

CHEM	111	General Chemistry	5
CHEM	112	General Chemistry	5

CIVIL ENGINEERING COGNATE

ENGR	235	Statics	3

COMPUTER SCIENCE COGNATE

CIS	183	JAVA Programming	3.5
CIS	214	UNIX and LINUX Operating Systems	3
CIS	231	Assembly Programming for Microcomputers	3.5
CIS	292	Data Structures	3

ECONOMICS COGNATE

ECON	201M	Principles of Macroeconomics	3
ECON	202M	Principles of Microeconomics	3

PHYSICS/ENGINEERING COGNATE

PHYS	201	Engineering Physics	4
PHYS	202	Engineering Physics	4
PHYS	203	Engineering Physics	4

CALIFORNIA STATE UNIVERSITY – LONG BEACH
Complete the Common Lower Division Preparation for the California State University on the first page, plus:

MATH	250	Linear Algebra & Differential Equations	5
CIS	183	Java Programming	3.5
PHYS	201	Engineering Physics	4

CSULB offers four areas of concentration: Mathematics, Option in Applied Mathematics, Option in Mathematics Education, Option in Statistics. To be considered for admission, an applicant must minimally earn a 2.5 cumulative GPA and 2.5 in major preparation courses. CSULB identifies minimum "major-specific admission requirements" for those not completing an AST in Mathematics. Consult with Counselor for details. Visit this link for more information:
http://web.csulb.edu/depts/enrollment/admissions/transfer-major-criteria/index.html

APPLIED MATHEMATICS OPTION
SUBOPTION I: SCIENCE & ENGINEERING

PHYS	202	Engineering Physics	4
PHYS	203	Engineering Physics	4

CALIFORNIA STATE UNIVERSITY – LONG BEACH - (cont.)

ENGR	215	Circuits	3
ENGR	235	Statics	3

CERRITOS COLLEGE
MATHEMATICS
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SUBOPTION II: ECONOMICS & FINANCE

ECON	201M	Principles of Macroeconomics	3
ECON	202M	Principles of Microeconomics	3

No additional courses are listed for the Option in Statistics. Completion of the Option in Mathematics Education meets subject matter competence requirements for the single subject Teaching Credential in Mathematics.

CALIFORNIA STATE UNIVERSITY – LOS ANGELES
Complete the Common Lower Division Preparation for the California State University on the first page, plus:

MATH	250	Linear Algebra & Differential Equations	5
BIOL	200	Principles of Biology	5
CIS	183	Java Programming	3.5
PHYS	201	Engineering Physics	4

Additionally, CSULA requires completion of a course that is no longer being offered at Cerritos College: MATH 160 Discrete Mathematics. It is recommended that students take the equivalent course at another community college, or at CSULA upon transfer. Finally, CSULA offers four options in Mathematics: Applied Mathematics, General Mathematics, Integrated Mathematics, and Traditional Teaching. Additional requirements are listed for some of these options, consult with Counselor for more information.

APPLIED/ GENERAL MATHEMATICS OPTION

MATH	112	Elementary Statistics	4
BIOL	201	Principles of Biology	5
CHEM	111	General Chemistry	5
CIS	292	Data Structures	3
PHYS	202	Engineering Physics	4

TRADITIONAL TEACHING

MATH	112	Elementary Statistics	4
CIS	292	Data Structures	3

CALIFORNIA POLYTECHNIC UNIVERSITY – POMONA
Complete the Common Lower Division Preparation for the California State University on the first page, plus:

MATH	250	Linear Algebra & Differential Equations	5
PHYS	201	Engineering Physics	4

CALIFORNIA POLYTECHNIC UNIVERSITY – POMONA – (cont.)

PHYS	202	Engineering Physics	4
or BIOL	200	Principles of Biology	(5)
& BIOL	201	Principles of Biology	(5)

CPP offers two options in Mathematics: Applied Mathematics/ Statistics, and Secondary Teacher Preparation/ Pure Math. In order to be considered for either option, complete the courses listed above.

CERRITOS COLLEGE
MATHEMATICS
TRANSFER PREPARATION

UNIVERSITY OF CALIFORNIA – IRVINE
Complete the Common Lower Division Preparation

MATH	170	Analytic Geometry and Calculus I	4
MATH	190	Analytic Geometry and Calculus II	4

UCI demonstrates preference to students with the highest overall GPA. In order to minimally be considered for admission, students must complete one year of calculus, earn a minimum of "B" in each course, and possess a cumulative GPA of 3.0. Additional approved courses are suggested for the Major, please consult with Counselor for more information. At the upper-division level, students may specialize in Applied and Computational Mathematics, Mathematical Biology or Mathematics for Education, or a Concentration in Mathematical Finance and Mathematics for Education with Secondary Teaching Certification.

ADDITIONAL APPROVED COURSES FOR THE MAJOR

MATH	225	Calculus III	5
MATH	250	Linear Algebra & Differential Equations	5
MATH	112	Elementary Statistics	4
CHEM	111	General Chemistry	5
CHEM	112	General Chemistry	5
or PHYS	201	Engineering Physics	(4)
& PHYS	202	Engineering Physics	(4)
& PHYS	203	Engineering Physics	(4)
ENGR	220	Programming and Problem-Solving in MATLAB	3

UNIVERSITY OF CALIFORNIA – LOS ANGELES
Complete the Common Lower Division Preparation

MATH	170	Analytic Geometry and Calculus I	4
MATH	190	Analytic Geometry and Calculus II	4
MATH	225	Calculus III	5
MATH	250	Linear Algebra & Differential Equations	5
CIS	280X	Object-Oriented Programming in C++	3.5

UNIVERSITY OF CALIFORNIA – LOS ANGELES – (cont.)
UCLA offers eight options related to Mathematics: Applied Mathematics, Atmospheric and Oceanic Sciences/ Mathematics, Financial Actuarial Mathematics, Mathematics for Teaching, Mathematics of Computation, Mathematics/Applied Science, Mathematics, and Mathematics/ Economics. Students must complete MATH 170, MATH 190, MATH 225, and Math 250 by the spring term prior to transfer, and all courses must be taken for a letter grade.

It is recommended that you consult your Counselor to determine the most applicable option and to ensure you've incorporated all requirements to be considered for admission.

CERRITOS COLLEGE
MATHEMATICS
TRANSFER PREPARATION

APPLIED MATHEMATICS

PHYS	201	Engineering Physics	4
PHYS	202	Engineering Physics	4
& CHEM	111	General Chemistry	(5)
or CHEM	112	General Chemistry	(5)
or PHYS	203	Engineering Physics	(4)

ATMOSPHERIC AND OCEANIC SCIENCES/ MATHEMATICS

CHEM	111	General Chemistry	5
CHEM	112	General Chemistry	5
PHYS	201	Engineering Physics	4
PHYS	202	Engineering Physics	4
PHYS	203	Engineering Physics	4

FINANCIAL ACTUARIAL MATHEMATICS

ACCT	101	Fundamentals of Accounting I	3.5
ACCT	102	Fundamentals of Accounting II	3.5
ECON	201M	Principles of Macroeconomics	3
ECON	202M	Principles of Microeconomics	3

MATHEMATICS FOR TEACHING/ MATHEMATICS

PHYS	201	Engineering Physics	4
& CHEM	111	General Chemistry	(5)
& CHEM	112	General Chemistry	(5)
or PHYS	202	Engineering Physics	(4)
& PHYS	203	Engineering Physics	(4)

Mathematics option enables students to complete BIOL 201 as an alternative course to fulfill one of the lower division requirements.

MATHEMATICS OF COMPUTATION

PHYS	201	Engineering Physics	4
PHYS	202	Engineering Physics	4
& CHEM	111	General Chemistry	(5)
or CHEM	112	General Chemistry	(5)
or PHYS	203	Engineering Physics	(4)

UNIVERSITY OF CALIFORNIA – LOS ANGELES – (cont.)

MATHEMATICS/APPLIED SCIENCE

BIOL	200	Principles of Biology	5
BIOL	201	Principles of Biology	5
CHEM	111	General Chemistry	5
CHEM	112	General Chemistry	5
CHEM	211	Organic Chemistry	5
PHYS	201	Engineering Physics	4
PHYS	202	Engineering Physics	4

MATHEMATICS, AND MATHEMATICS/ ECONOMICS

ECON	201M	Principles of Macroeconomics	3
ECON	202M	Principles of Microeconomics	3

CERRITOS COLLEGE
MATHEMATICS
TRANSFER PREPARATION

UNIVERSITY OF CALIFORNIA – RIVERSIDE
Complete the Common Lower Division Preparation

MATH	170	Analytic Geometry and Calculus I	4
MATH	190	Analytic Geometry and Calculus II	4

UCR offers three options in Mathematics: Mathematics B.A., Mathematics B.S., and Mathematics for Secondary School Teachers B.S. A minimum cumulative GPA of 2.7 is required for consideration of admission; courses must be completed with a letter grade, with no grade lower than a "C." To be best prepared for upper division course work at UCR, students are advised to complete as many as possible of the lower division major requirements listed below prior to transfer, and to prioritize this course work above completion of breadth/general education courses. Additionally, students must complete at least two of the following UCR year-long sequences in order to meet selection criteria for this major.

& MATH	225	Calculus III	(5)
& MATH	250	Linear Algebra & Differential Equations	(5)
or BIOL	200	Principles of Biology	(5)
& BIOL	201	Principles of Biology	(5)
or CHEM	111	General Chemistry	(5)
& CHEM	112	General Chemistry	(5)
or PHYS	201	Engineering Physics	(4)
& PHYS	202	Engineering Physics	(4)
& PHYS	203	Engineering Physics	(4)

CAREER OPPORTUNITIES
Upon completion of the bachelor's degree program, graduates qualify for graduate study in Accounting, Computer Information Systems, Engineering, Physics, Economics and other related fields. Baccalaureate graduates also qualify for positions as an actuary and statisticians, appraisers, and estimators, financial analysts, financial planners, loan officers, marketing researchers, methods analyst, operations analyst, mathematicians in government and industry, secondary teaching and career opportunities in computer science. Consult with your Counselor for more information regarding employment opportunities, internships, and/or scholarships.

ASSIST

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

1. Visit: **www.assist.org**

2. Use the scroll down option to select an Institution. Select "Cerritos College" or other community college of attendance.

3. Use the scroll down option to view agreements with other institutions. Example: "University of California, Los Angeles"

4. Select "View Agreements"

5. Type in, or search for your major of interest. Then, select "View Agreement" once again.

IMPORTANT NOTICE: Students are advised to consult with a Cerritos College Counselor for details and information regarding other transfer agreements &/or options not available through ASSIST.