



**California State Polytechnic University, Pomona
Degree Curriculum Sheet**

Plan (Major) **MATHEMATICS**

Catalog Year **2014 - 2015**

Name _____

Subplan/Option **Applied Mathematics/Statistics**

Minimum Units Required **180**

Student ID _____

Required Core Courses		
Course		Units
Required of all students. A 2.0 cumulative GPA is required in core courses, including subplan courses, in order to receive a degree in the major.		
Intro to C++	CS 128	4
Analytic Geometry & Calculus III	MAT 116	4
Intro to Numerical Methods	MAT 201	4
Intro to Linear Algebra	MAT 208	4
Calculus of Several Variables I	MAT 214	3
Calculus of Several Variables II	MAT 215	3
Differential Equations	MAT 216	4
Basic Set Theory and Logic	MAT 310	4
Intermediate Analysis	MAT 314	4
Intermediate Analysis	MAT 315	4
Modern Algebra	MAT 417	4
Modern Algebra	MAT 418	4
Functions of a Complex Variable	MAT 428	4
Applied Probability Theory	STA 241	4
Applied Statistics	STA 341	4
Total Units		58

Required Subplan/Option Core Courses		
Course		Units
<i>Choose 6 courses from the following list.</i>		
Graph Theory	MAT 370	(4)
Mathematics of Operations Research	MAT 380	(4)
Mathematics of Operations Research	MAT 381	(4)
Numerical Analysis	MAT 401	(4)
Numerical Methods in Differential Equations	MAT 402	(4)
Differential Equations	MAT 431	(4)
Differential Equations	MAT 432	(4)
Combinatorics	MAT 470	(4)
Mathematical Programming	MAT 480	(4)
Math Modeling and Simulation	MAT 485	(4)
Math Modeling and Simulation	MAT 486	(4)
Sampling Theory and Applications	STA 310	(4)
Nonparametric Statistics	STA 420	(4)
Applied Survival Analysis	STA 425	(4)
Intro to Random Processes	STA 430	(4)
Applied Regression Analysis	STA 432	(4)
Analysis of Variance and Design of Experiments	STA 435	(4)
Mathematical Statistics I	STA 440	(4)
Mathematical Statistics II	STA 441	(4)
Special Topics for Upper Division Students	STA 499	(1-4)
Total Units		24

Required Support Courses		
Course		Units
The following required support courses should be taken to satisfy the indicated GE Requirements to achieve the minimum units to degree listed at the top of this sheet.		
Stretch Composition III (A2)	ENG 107	4
or Advanced Stretch Composition II (A2)	ENG 109	(4)
or First-Year Composition (A2)	ENG 110	(4)
Analytic Geometry and Calculus I (B4)	MAT 114	4
Analytic Geometry and Calculus II (B4)	MAT 115	4
General Physics & Lab (B1, B3)	PHY 131/131L	3/1
General Physics & Lab	PHY 132/132L	3/1
General Physics & Lab	PHY 133/133L	3/1
Total Units		24

Unrestricted Electives	
Course	Units
Select a sufficient number of courses so that the total from "Required Support", "GE", and "Unrestricted Electives" is at least 98 units.	6-18
Total Units	6-18

General Education Requirements		
Area	Units	
Area A Communication & Critical Thinking	12	
1. Oral Communication		
2. Written Communication		
3. Critical Thinking		
Area B Mathematics & Natural Sciences	16	
<i>Select at least one lab course from subarea 1 or 2.</i>		
1. Physical Science		
2. Biological Science		
3. Laboratory Activity		
4. Math/Quantitative Reasoning		
5. Science & Technology Synthesis		
Area C Humanities	16	
1. Visual and Performing Arts		
2. Philosophy and Civilization		
3. Literature and Foreign Language		
4. Humanities Synthesis		
Area D Social Sciences	20	
1. U.S. History, Constitution, American Ideals		
a. United States History		
b. Introduction to American Government		
2. History, Economics and Political Science		
3. Sociology, Anthropology, Ethnic & Gender Studies		
4. Social Science Synthesis		
Area E Lifelong Understanding & Self Development	4	
Total Units		68

American Institutions	
Courses that satisfy this requirement may also satisfy GE Area D1	8

American Cultural Perspectives Requirement	
Refer to catalog for list of courses that satisfy this requirement. Course may also satisfy major, minor, GE, or unrestricted elective requirements.	4

All persons who receive undergraduate degrees from Cal Poly Pomona must pass the Graduation Writing Test (GWT). The test must be taken by the quarter following completion of 120 units for undergraduates.