California State Polytechnic University, Pomona
Degree Curriculum Sheet

Plan (Major) __**MATHEMATICS**__   Catalog Year __**2011–2012**__   Name_____   Evaluator _____

Subplan/Option __**Secondary Teacher Prep/Pure Mathematics**__   Minimum Units Required __**180**__   Student ID _____   GWT Satisfied _____Yes ____No

Required Core Courses

Course		Units
FORTRAN	CS 125	4
or Intro to C++	CS 128	(4)
Analytic Geometry & Calculus III	MAT 116	4
Intro to Numerical Methods	MAT 201	4
Intro Linear Algebra	MAT 208	4
Calculus of Sev Variables I	MAT 214	3
Calculus of Sev Variables II	MAT 215	3
Differential Equations	MAT 216	4
Basic Set Theory & Logic	MAT 310	4
Intermediate Analysis	MAT 314	4
Intermediate Analysis	MAT 315	4
Modern Algebra I	MAT 417	4
Modern Algebra II	MAT 418	4
Complex Variables	MAT 428	4
Applied Prob Theory	STA 241	4
Applied Statistics	STA 341	4
Total Units		**58**

Required Subplan/Option Core Courses

Course		Units
Choose 6 courses from the following List. No more than 2 Geometry courses may be selected from MAT 330, MAT 415, MAT 416.		24
History of Math	MAT 306	(4)
Topology	MAT 321	(4)
Introduction to Number Theory	MAT 325	(4)
Modern Euclidean Geometry	MAT 330	(4)
Graph Theory	MAT 370	(4)
Advanced Calculus	MAT 413	(4)
Foundations of Geometry	MAT 415	(4)
Projective Geometry	MAT 416	(4)
Abstract Linear Algebra	MAT 419	(4)
Differential Geometry	MAT 420	(4)
Functions of a Complex Variable	MAT 429	(4)
Topics in Contemporary Secondary School Mathematics III	MAT 497	(4)
Foundations of Mathematics	MAT 450	(4)
Combinatorics	MAT 470	(4)
Total Units		**24**

Required Support Courses

Course		Units
Freshman Composition (A2)	ENG 104	4
Analytic Geometry & Calculus I (B4)	MAT 114	4
Analytic Geometry & Calculus II (B4)	MAT 115	4
General Physics (B1, B3)	PHY 131/131L	3/1
General Physics	PHY 132/132L	3/1
General Physics	PHY 133/133L	3/1
Total Units		**24**

Unrestricted Electives

Course	Units
Unrestricted Electives	6-18
Select a sufficient number of courses so that the total from "Required Support", "GE", and "Unrestricted Electives" is at least 98 units.	
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**
Select at least one lab course from sub-area 1 or 2.	
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	
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 G.E. 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

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.

Course		GE Area
Freshman Composition	ENG 104	A2
General Physics	PHY 131/131L	B1, B3
Analytic Geometry and Calculus I	MAT 114	B4
or Analytic Geometry and Calculus II	MAT 115	(B4)

The remaining GE requirements may be satisfied by any course approved for that area.

No more than 105 community college quarter units or 36 extension credit quarter units may be applied toward a Bachelor's degree.
A minimum 2.0 cumulative GPA is required in core (including option) courses, Cal Poly Pomona courses, and overall work completed in order to receive a degree in this major.