Plan (Major) __**MATHEMATICS**__   Catalog Year ___**2011–2012**___   Name_____   Evaluator _____
Subplan/Option ___**Applied 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 I	MAT 314	4
Intermediate Analysis II	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
Complete two, two-quarter sequences from the list below:		
Math of Operations Research	MAT 380	(4)
Math of Operations Research	MAT 381	(4)
Numerical Analysis	MAT 401	(4)
Numerical Analysis	MAT 402	(4)
Differential Equations	MAT 431	(4)
Differential Equations	MAT 432	(4)
Math Modeling	MAT 485	(4)
Math Modeling	MAT 486	(4)
Complete two additional courses from the list above or the list below:		
Graph Theory	MAT 370	(4)
Combinatorics	MAT 470	(4)
Mathematical Programming	MAT 480	(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 requirements. 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.