



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

Plan (Major) **MATHEMATICS**
Subplan/Option **Applied Mathematics/Statistics**

Catalog Year **2016 - 2017**
Minimum Units Required **180**

Name _____
Student ID _____

Required Core Courses
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.
CS 128 - Introduction to C++ (4) MAT 116 - Analytic Geometry and Calculus III (4) MAT 201 - Introduction to Numerical Methods (4) MAT 208 - Introduction to Linear Algebra (4) MAT 214 - Calculus of Several Variables I (3) MAT 215 - Calculus of Several Variables II (3) MAT 216 - Differential Equations (4) MAT 310 - Basic Set Theory and Logic (4) MAT 314 - Intermediate Analysis (4) MAT 315 - Intermediate Analysis (4) MAT 417 - Modern Algebra (4) MAT 418 - Modern Algebra (4) MAT 428 - Functions of a Complex Variable I (4) STA 241 - Applied Probability Theory (4) STA 341 - Applied Statistics (4)
Total Units 58

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

Required Support Courses
The following major support courses should be used to satisfy the indicated GE requirements. If these courses are not used to satisfy GE, the total units to degree may be more than 180 units. ENG 107 - Stretch Composition III (4) (A2) or ENG 109 - Advanced Stretch Composition II (4) (A2) or ENG 110 - First-Year Composition (4) (A2)
MAT 114 - Analytic Geometry and Calculus I (4) (B4) MAT 115 - Analytic Geometry and Calculus II (4) (B4)
PHY 131 - General Physics (3) (B1) and PHY 131L - General Physics Laboratory (1) (B3)
PHY 132 - General Physics (3) and PHY 132L - General Physics Laboratory (1)
PHY 133 - General Physics (3) and PHY 133L - General Physics Laboratory (1)
Total Units 24

Unrestricted Electives
Select a sufficient number of courses so that the total from "Required Support", "GE", and "Unrestricted Electives" is at least 98 units.
Total Units 6-8

General Education Requirements
Area A Communication & Critical Thinking (12 units) 1. Oral Communication 2. Written Communication 3. Critical Thinking
Area B Mathematics & Natural Sciences (16 units) 1. Physical Science 2. Biological Science 3. Laboratory Activity 4. Math/Quantitative Reasoning 5. Science & Technology Synthesis
Area C Humanities (16 units) 1. Visual and Performing Arts 2. Philosophy and Civilization 3. Literature and Foreign Language 4. Humanities Synthesis
Area D Social Sciences (20 units) 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 units)
Total Units 68

American Institutions Courses that satisfy this requirement may also satisfy GE Area D1	8
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American Cultural Perspectives Requirement Refer to the University Catalog General Education Program section for a list of courses that satisfy this requirement. Course may also satisfy major, minor, GE, or unrestricted elective requirements.	4
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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.