

**DEPARTMENT OF MATHEMATICS**  
Overview of Degree Requirements for all our Majors  
*For use with 2006-2008 catalog*

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Your program must be approved by your adviser. Prior to meeting with your adviser, decide on one or more options for the additional upper division units and pencil in the tentative selections and schedule of coursework on the appropriate major planning sheet. One copy of this sheet, after approval by your adviser, will be kept in your file in the Student Services Office. Afterwards, **deviations may be made only upon approval by your adviser.** Substitutions of other mathematics courses or mathematically oriented courses offered by other departments for the required upper division courses listed above is permissible only with the approval of the Undergraduate Program Committee.

**BS – Applied Mathematics**

<b>Preparatory Subject Matter</b>	<b>42-48</b>
MAT 12 (or high school equivalent).....	0 – 3
MAT 21A, 21B, 21C, 21D, 22B .....	19
MAT 25, 67.....	8
ECS 30, 40 .....	8
One two-quarter sequence from PHY 9AB; BIS 1AB; CHE 2AB; ECN 1AB; STA 32, 102; or other applied preparatory courses approved by your adviser .....	7 - 10

<b>Depth Subject Matter</b>	<b>48-52</b>
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A. <i>Entry Level (Optional)</i> .....	0-4
(Choices: 1 course from MAT 108, 114, 115A, 141, 145)	
 B. <i>Core</i> .....	 32
MAT 150A .....	4
MAT 135A .....	4
MAT 125AB .....	8
MAT 119A .....	4
MAT 128AB .....	8
MAT 185A .....	4
 C. <i>Enrichment Courses</i> .....	 16
1. Choice of 2 courses from MAT 118ABC, 119B, 124, 128C, 129, 133, 167, 168.....	8
2. Choice of 1 course from MAT 111, 114, 115A, 116, 135B, 141, 145, 146, 147, 148, 150B, 165, 185B .....	4
3. One approved* upper division course outside the Department of Mathematics with extensive use of mathematics .....	4
 <b>Total units for the Major</b> .....	 <b>90-100</b>

\* See individual planning sheet for list of courses outside of Mathematics

**BS – Mathematics**

<b>Preparatory Subject Matter</b>	<b>34-38</b>
MAT 12 (or high school equivalent).....	0 – 3
MAT 21A, 21B, 21C, 21D, 22B .....	19
MAT 25, 67.....	8
ECS 30 or ENG 6.....	4
PHY 9 A (Plans 1 & 2) or 1 course from PHY 7A, STA 13, 32, 100 or 102 (Plan 2).....	3 - 4

<b>Depth Subject Matter</b>	<b>48-52</b>
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Choose 1 plan from the following 2:

**Plan 1: General Mathematics**

A. *Entry Level (Optional)*.....0-4  
 (Choices: 1 course from MAT 108, 114, 115A, 141, 145)

B. *Core* ..... 28  
 MAT 150ABC..... 12  
 MAT 135A..... 4  
 MAT 125AB ..... 8  
 MAT 185A..... 4

C. *Enrichment* ..... 20  
 1. Choice of 4 courses from MAT 111, 114, 115AB, 116, 135B, 141, 145, 146, 147, 148, 165, 185B ..... 16  
 2. Choice of 1 course from MAT 119A, 124, 128A, 128B, 129, 133, 167, 168, or 1 approved\* upper division course outside the Dept. of Mathematics with extensive use of mathematics. .... 4

**Plan 2: Mathematics for Secondary Teaching**

A. *Entry Level (Optional)*.....0-4  
 (Choices: 1 course from MAT 108, 114, 145)

B. *Core* ..... 28  
 MAT 150A..... 4  
 MAT 135A..... 4  
 MAT 125AB ..... 8  
 MAT 111..... 4  
 MAT 115A..... 4  
 MAT 141..... 4

C. *Enrichment* ..... 20  
 1. Choice of 4 courses from MAT 114, 116, 118A, 119AB, 128A, 129, 133, 135B, 145, 147, 148, 165, 167, 168, 185AB. Up to 4 units can be approved\* upper division units outside the Dept. of Mathematics with extensive use of mathematics. .... 16  
 2. Choice of 1 course from MAT 115B, 146, 150B..... 4

**Total units for the Major.....82-90**

\* See individual planning sheet for list of courses outside of Mathematics

**BS –Mathematical and Scientific Computation**

<b><u>Preparatory Subject Matter</u></b>	<b>35-38</b>
MAT 12 (or high school equivalent).....	0 – 3
MAT 21ABC or MAT 17ABC, 21D, 22B.....	19
MAT 25, 67.....	8
ECS 30, 40 .....	8
<b><u>Depth Subject Matter</u></b>	<b>48-52</b>
<i>A. Entry Level (Optional)</i> .....	0-4
(Choices: 1 course from MAT 108, 114, 115A, 141, 145)	
<i>B. Core</i> .....	28
MAT 150A.....	4
MAT 135A.....	4
MAT 125AB .....	8
MAT 128ABC.....	12
<i>C. Enrichment</i> .....	12
1. Choice of 2 courses from MAT 118ABC, 119AB, 129, 133, 167, 185A.....	8
2. Choice of 1 course from MAT 111, 114, 115A, 116, 135B, 141, 145, 146, 147, 148, 150B, 165 .....	4
<i>D. Choose 1 Emphasis from the following 2:</i> .....	8
<u>Computational &amp; Mathematical Biology Emphasis</u>	
MAT 124.....	4
One approved* upper division course in Biology .....	4
<u>Computational &amp; Mathematics Emphasis</u>	
MAT 168.....	4
One approved* upper division course involving extensive computation or theory of computation.....	4
<b>Total units for the Major .....</b>	<b>83-90</b>

\* See individual planning sheet for list of approved courses outside of Mathematics

**AB – Mathematics**

<b><u>Preparatory Subject Matter</u></b>	<b>43-46</b>
MAT 12 (or high school equivalent).....	0 – 3
MAT 21A, 21B, 21C, 21D, 22B .....	19
MAT 25, 67.....	8
ECS 30 or ENG 6.....	4
Additional non-Mathematics courses chosen from natural sciences.....	12
<b><u>Depth Subject Matter</u></b>	<b>34-38</b>
<i>A. Entry Level (Optional)</i> .....	0-4
(Choices: 1 course from MAT 108, 114, 115A, 141, 145)	
<i>B. Core</i> .....	16
MAT 125AB .....	8
MAT 135A.....	4
MAT 150A.....	4
<i>C. Choose 1 Plan from the following 2:</i>	
(up to 4 of these 18 units may be approved* upper division courses	
outside of the Dept of Mathematics with extensive use of mathematics .....	18
<u>Plan 1: General Mathematics</u>	
Additional upper division mathematics units selected in consultation with	
and subject to approval of an adviser .....	18
<u>Plan 2: Secondary Teaching</u>	
MAT 111.....	4
MAT 115A.....	4
MAT 141.....	4
Additional upper division mathematics units selected in consultation with	
and subject to approval of an adviser .....	6
NOTE: Students who wish to satisfy the single subject matter waiver for the	
teaching credential should see an adviser as early as possible. For list of courses	
that satisfy the Math Single Subject Matter Waiver, see the individual planning	
sheet for this major.	
<b>Total units for the Major</b> .....	<b>77-84</b>

\* See individual planning sheet for list of courses outside of Mathematics.