Teaching Credential Subject Representative  
Dr. Ali Dad-del

Graduate Study  
The Department offers programs of study and research leading to M.A. and Ph.D. degrees in Mathematics. Information regarding graduate study may be obtained by consulting our website, and by sending an email to Student Services (studentservices@math.ucdavis.edu).

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Preparatory Subject Matter</td>
<td></td>
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<tr>
<td>Calculus</td>
<td></td>
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<tr>
<td>MAT 021A</td>
<td>Calculus</td>
<td>4</td>
</tr>
<tr>
<td>MAT 021B</td>
<td>Calculus</td>
<td>4</td>
</tr>
<tr>
<td>MAT 021C</td>
<td>Calculus</td>
<td>4</td>
</tr>
<tr>
<td>MAT 021D</td>
<td>Vector Analysis</td>
<td>4</td>
</tr>
</tbody>
</table>

Choose one option: 4-8

- MAT 022A Linear Algebra
- MAT 108 Introduction to Abstract Mathematics

(b) MAT/BIS 027A Linear Algebra with Applications to Biology
- MAT 017A Introduction to Abstract Mathematics
- MAT 067 Modern Linear Algebra

(c) MATLAB
- MAT 022AL Linear Algebra Computer Laboratory
- Equivalent MATLAB knowledge.

Differential Equations  
MAT/BIS 027B Differential Equations with Applications to Biology or MAT 022B Differential Equations 3-4

Programming  
ECS 032A Introduction to Programming or ENG 006 Engineering Problem Solving 4

Additional Non-Mathematics Courses  

Preparatory Subject Matter Subtotal 39-45

Depth Subject Matter

Plans  
Choose one: 39-40

- Plan 1: General Mathematics (p. 2)
- Plan 2: Secondary Teaching (p. 2)

Note: Students who wish to satisfy the single subject matter waiver for the teaching credential should see an advisor as early as possible.

Depth Subject Matter Subtotal 39-40

Total Units 78-85

1 Note: Basic knowledge of MATLAB is required for both MAT 022A and MAT 067. Students can learn it on their own, enroll in ENG 006,
Plan 1: General Mathematics

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<tr>
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<tbody>
<tr>
<td>MAT 127A</td>
<td>Real Analysis</td>
<td>4</td>
</tr>
<tr>
<td>MAT 127B</td>
<td>Real Analysis</td>
<td>4</td>
</tr>
<tr>
<td>MAT 127C</td>
<td>Real Analysis</td>
<td>4</td>
</tr>
<tr>
<td>MAT 135A</td>
<td>Probability</td>
<td>4</td>
</tr>
<tr>
<td>MAT 150A</td>
<td>Modern Algebra</td>
<td>4</td>
</tr>
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</table>

B. Enrichment Courses

Choose four: 16
MAT 111-MAT 185B; up to four of these 16 units may be approved upper division courses outside of the Department of Mathematics with extensive use of mathematics.

C. Capstone Course

Choose one: 3-4
MAT 115B Number Theory
MAT 118B Partial Differential Equations: Eigenfunction Expansions
MAT 119B Ordinary Differential Equations
MAT 135B Stochastic Processes
MAT 146 Algebraic Combinatorics
MAT 150B Modern Algebra
MAT 150C Modern Algebra
MAT 180 Special Topics
MAT 185B Complex Analysis
MAT 189 Advanced Problem Solving
MAT 192 Internship in Applied Mathematics (Must take 3 units.)
MAT 194 Undergraduate Thesis
EDU/GEL 183 Teaching High School Mathematics & Science
GEL/EDU 183 Teaching High School Mathematics & Science

1 Excluding MAT 180, core courses, and courses being used as a capstone.

Plan 2: Secondary Teaching

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<tbody>
<tr>
<td>MAT 111</td>
<td>History of Mathematics</td>
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</tr>
<tr>
<td>MAT 115A</td>
<td>Number Theory</td>
<td>4</td>
</tr>
<tr>
<td>MAT 127A</td>
<td>Real Analysis</td>
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<td>MAT 135A</td>
<td>Probability</td>
<td>4</td>
</tr>
<tr>
<td>MAT 141</td>
<td>Euclidean Geometry</td>
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</tr>
<tr>
<td>MAT 150A</td>
<td>Modern Algebra</td>
<td>4</td>
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B. Enrichment Course

Choose one: 4
MAT 111-MAT 185B

C. Capstone Course

Choose one: 3-4
MAT 115B Number Theory
MAT 118B Partial Differential Equations: Eigenfunction Expansions
MAT 119B Ordinary Differential Equations
MAT 135B Stochastic Processes
MAT 146 Algebraic Combinatorics
MAT 150B Modern Algebra
MAT 150C Modern Algebra
MAT 180 Special Topics
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