DEPARTMENT OF MATHEMATICS  
College of Letters and Science  
University of California, Santa Barbara  

Student Name:_______________________     Perm: ___________________

MASTER OF ARTS – APPLIED MATHEMATICS – 2020-21
PLAN I – Thesis Option

In addition to departmental requirements, candidates for graduate degrees must fulfill University requirements described in the “Graduate Education” section of the UCSB General Catalog.

A total of **42.0 units** are required for the M.A. program. A minimum of 24 of the 42 units must come from 200-level courses, and must include at least one sequence core course. Additional units may come from either the sequence core courses or the elective courses. The 200-level courses must be passed with a grade of B or better, and the overall minimum GPA is 3.0. Please refer to the Mathematics Department Graduate Program Handbook for details. Time-to-degree completion for a master’s degree is 4 years.

### SEQUENCE CORE COURSE REQUIREMENTS (minimum of 12.0 units)

Students are required to complete at least one of the following course sequences. A grade of B or better is required in each course.

<table>
<thead>
<tr>
<th>COURSE #</th>
<th>COURSE NAME</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 206A-B-C-D</td>
<td>Numerical Analysis</td>
<td>12.0</td>
</tr>
<tr>
<td>MATH 243A-B-C</td>
<td>Ordinary Differential Equations</td>
<td>12.0</td>
</tr>
<tr>
<td>MATH 246A-B-C</td>
<td>Partial Differential Equations</td>
<td>12.0</td>
</tr>
</tbody>
</table>

### ELECTIVES (additional units toward the 42.0 minimum required)

<table>
<thead>
<tr>
<th>COURSE</th>
<th>COURSE NAME</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 104A-B-C</td>
<td>Intro to Numerical Analysis</td>
<td>12.0</td>
</tr>
<tr>
<td>MATH 108A-B</td>
<td>Linear Algebra</td>
<td>8.0</td>
</tr>
<tr>
<td>MATH 111A-B-C</td>
<td>Abstract Algebra</td>
<td>12.0</td>
</tr>
<tr>
<td>MATH 118A-B-C</td>
<td>Real Analysis</td>
<td>12.0</td>
</tr>
<tr>
<td>MATH 122A-B</td>
<td>Complex Variables</td>
<td>8.0</td>
</tr>
<tr>
<td>MATH 124A-B</td>
<td>Intro to Partial Differential Equations</td>
<td>8.0</td>
</tr>
<tr>
<td>MATH 201A-B-C</td>
<td>Real Analysis</td>
<td>12.0</td>
</tr>
<tr>
<td>MATH 202A-B-C</td>
<td>Complex Analysis</td>
<td>12.0</td>
</tr>
<tr>
<td>MATH 220A-B-C</td>
<td>Modern Algebra</td>
<td>12.0</td>
</tr>
<tr>
<td>MATH 221A-B-C</td>
<td>Topology</td>
<td>12.0</td>
</tr>
<tr>
<td>MATH 225A-B-C</td>
<td>Number Theory</td>
<td>12.0</td>
</tr>
<tr>
<td>MATH 228A-B</td>
<td>Functional Analysis</td>
<td>8.0</td>
</tr>
<tr>
<td>MATH 231A-B</td>
<td>Lie Groups and Lie Algebras</td>
<td>8.0</td>
</tr>
<tr>
<td>MATH 232A-B-C</td>
<td>Algebraic Topology</td>
<td>12.0</td>
</tr>
<tr>
<td>MATH 236A-B</td>
<td>Homological Algebra</td>
<td>8.0</td>
</tr>
<tr>
<td>MATH 237A-B</td>
<td>Algebraic Geometry</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH 240A-B-C</td>
<td>Differential Geometry</td>
<td>12.0</td>
</tr>
</tbody>
</table>
### Courses approved by Exception

<table>
<thead>
<tr>
<th>COURSE</th>
<th>COURSE NAME</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 260</td>
<td>Seminars in Mathematics</td>
<td>4.0</td>
</tr>
</tbody>
</table>

### Reading and Research (maximum 8.0 units allowed toward 42.0 unit requirement)

<table>
<thead>
<tr>
<th>COURSE #</th>
<th>COURSE NAME</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 596</td>
<td>Directed Reading and Research</td>
<td></td>
</tr>
<tr>
<td>MATH 598</td>
<td>MA Thesis Research &amp; Preparation</td>
<td></td>
</tr>
</tbody>
</table>

### CAPSTONE REQUIREMENT

All students are expected to write and defend an original M.A. thesis. Following successful submission of the thesis, the student undergoes a thesis defense. Required coursework must be completed by the end of the quarter in which the thesis is submitted. The student’s Master’s Committee supervises the thesis research, administers the thesis defense, and certifies the completion of required coursework.

**M.A. Committee:**

- Chair: _______________________
- Member: ______________________
- Member: ______________________

### M.A. DEGREE REQUIREMENTS SATISFIED:

| Quarter/Year | |

**DEPT GRADUATE ADVISOR SIGNATURE:**

________________________________________

________________________________________

Print Name

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### FOR GRADUATE DIVISION USE ONLY

- Residence requirement—minimum 3 quarters (*verify departmental requirement*)
- Required units completed
- Language requirement Satisfied (*if required*)
- No grades of I, NR, or NG
- 3.0 or better GPA overall
- Registered quarter of degree or Filing Fee LOA:

- Master’s Form I / COI and committee entered
- Master’s Thesis date received (*signature page/e-filed and entered in SReg*):
- Master’s Thesis Submission Fee:
- ProQuest ID____________________ Permission Ltrs uploaded?

Master’s Degree Awarded (mm/dd/yy)