# MATHEMATICS 4+1 BA/MA PROGRAM

### THE BASICS

- Students finish at UCSC with a Bachelor's of Arts in Mathematics and a Master's of Arts in Mathematics with 5 total years of coursework (3 for transfer students).
- Students take at least 2 Graduate Level courses during their 4<sup>th</sup> year as an undergraduate.
- Remaining Graduate coursework is completed in the 5<sup>th</sup> year.

# THE REQUIREMENTS TO APPLY

- Major GPA of 3.5
- Have taken Math 105B or Math 111B
- Have already taken or are currently enrolled in one of the required Graduate courses (e.g. Math 200, 204 or 210)
  - Students must complete 2 graduate level courses by the point they finish their Bachelor's degree to stay on pace.

# APPLYING TO THE PROGRAM

- Applications are due by December 1<sup>st</sup> of your 4<sup>th</sup> year (you may apply sooner).
- Application is found on Math Department Website.
- When you ready to apply, make an appointment with the Math Undergrad Advisor.
- The Graduate Advisor and Program Coordinator will contact you via email with your 4+1 admission status.
  - If accepted you will receive detailed instructions for applying as a Master's student to UCSC.
- Streamlined Master's Application process.
  - You still have to apply to UCSC for admission as a Master's student after acceptance into the 4+1 program.
  - Personal History, GRE scores, Statement of Purpose and Letter's of Recommendation requirements are all waived (Letters of Rec are preferred but not required).

### ACADEMIC PLANNING ESSENTIALS

- You need to take at least Math 105B or Math 111B by Spring of your 3<sup>rd</sup> year.
  - You will need to take Math 105A or Math 111A by Winter of your 3<sup>rd</sup> year.
  - If you only take one by Spring of your 3<sup>rd</sup> year, the other course (Math 105B or 111B) will need to be taken by Spring of your 4<sup>th</sup> year.
- This prepares you to start a graduate level sequence (e.g. Math 200, Math 204 or Math 210) in the Fall of your 4<sup>th</sup> year.
- The remaining 7 Graduate level courses will be taken in the 5<sup>th</sup> year.

### PROGRAM COMPLETION REQUIREMENTS

- All coursework required for your Bachelor's of Arts in Mathematics.
- Completion of 4 courses from the Graduate Level core sequences:
  - Algebra Sequence- Math 200, 201 and 202
  - Analysis Sequence- Math 204, 205 and 206
  - Manifolds Sequence-Math 210, 211 and 212
- Five additional Graduate Level courses
- One of the following:
  - Master's Thesis
  - Second Level Pass on one of the preliminary examinations in Algebra, Analysis or Geometry.

### SAMPLE PLANNER FOR TRANSFER STUDENTS YEARS 3-5

#### Year 3:

- Fall: Math 23B, Math 100
- Winter: Math 103A, Math 105A
- Spring: Math 105B (Undergrad Elective 1), Math 117

Year 4:

- Fall: Math 24, Math 128A, Math 204 (Undergrad Elective 2)
- Winter: Math 111A, Math 205
- Spring: Math 111B (Undergrad Elective 3), Math 194 or 195 Year 5 (MA year):
- Fall: Math 200, Grad Elective 1
- Winter: Math 201, Grad Elective 2
- Spring: Grad Elective 3, Grad Elective 4, Grad Elective 5

### SAMPLE PLANNER FOR FRESHMEN YEARS 1-3

#### Year 1:

- Fall: Math 19A
- Winter: Math 19B
- Spring: Math 21

Year 2:

- Fall: Math 23A
- Winter: Math 23B, Math 100
- Spring: Math 103A

Year 3:

- Fall: Math 24, Math 128A
- Winter: Math 111A
- Spring: Math 111B (Undergrad Elective 1), Math 117

### SAMPLE PLANNER FOR FRESHMEN YEARS 4-5

Year 4:

- Fall: Math 200 (Undergrad Elective 2)
- Winter: Math 105A Math 201
- Spring: Math 105B (Undergrad Elective 3), Math 194 or 195

Year 5 (MA year):

- Fall: Math 208, Grad Elective 1
- Winter: Math 209, Grad Elective 2
- Spring: Grad Elective 3, Grad Elective 4, Grad Elective 5