### Major: MATHEMATICS

#### Qualification requirements and/or prerequisites for the major:

To declare Mathematics, students must complete the following courses or their equivalents with grades of C or better:

- Calculus (MATH 19A,B or 20A,B)
- Linear Algebra (MATH 21)
- Vector Calculus (MATH 23A and 23B)
- Introduction to Proof and Problem Solving (Math 100) for most transfer students, this will be taken at UCSC.

For more detailed information see the Mathematics Program Transfer Preparation webpage: [http://www.math.ucsc.edu/undergraduate/transfer-students/index.html](http://www.math.ucsc.edu/undergraduate/transfer-students/index.html)

#### Transfer students who intend to pursue this major should do the following prior to the beginning of their first term:

- Students who have taken college-level transferable classes that may apply to the requirements of this major should submit an unofficial transcript to the adviser prior to July 1. This transcript is in addition to the official transcript that is required by the UCSC Admissions Office.

#### ...and should take these courses their first term:

- MATH 100: *Intro to Proof and Problem Solving*, and if necessary MATH 23B: *Multivariable Calculus*.

#### If unable to enroll in courses listed above:

- Sign up for a wait list when available: please check the Physical and Biological Sciences Quarterly Enrollment Report for updated information about enrollment and wait list availability: [http://undergrad.pbsci.ucsc.edu/enrollment/index.html](http://undergrad.pbsci.ucsc.edu/enrollment/index.html)

#### Skills important for success in this major:

Students should not only have computational fluency in calculus, but also a desire to understand the theoretical underpinnings of ancient and modern mathematics. Mechanical computation quickly gets replaced by writing proofs -- careful logical arguments -- and students are required to develop this technical writing skill. Successful students in mathematics are critical thinkers, careful writers, close readers, and are devoted to mathematics for its own sake as well as for its applications.

- A multivariable calculus course from a community college often does not satisfy the Vector Calculus requirement of the mathematics major. Students who wish to petition this must see the Mathematics adviser.
- A combined major with Economics is also available. Students interested in this possibility should contact the adviser.

#### Other information:

- [http://admissions.ucsc.edu/academics/majors/](http://admissions.ucsc.edu/academics/majors/) (general info)
- [http://registrar.ucsc.edu/catalog/programs-courses/](http://registrar.ucsc.edu/catalog/programs-courses/) (major requirements, course descriptions, etc.)
- [http://www.math.ucsc.edu/undergraduate/index.html](http://www.math.ucsc.edu/undergraduate/index.html) (program website)
- [http://www.assist.org/web-assist/welcome.html](http://www.assist.org/web-assist/welcome.html) (transfer credit info)

#### Questions?

Contact an Adviser!

- Ben Fisher
- [mathadvising@ucsc.edu](mailto:mathadvising@ucsc.edu)
- 4147 McHenry Building

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