



SAN DIEGO STATE
UNIVERSITY

Department of Mathematics and Statistics
New Student Orientation
Academic Year 2015/16

Department Office

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Dear Students,

Welcome to the department of Mathematics and Statistics at SDSU. We are glad to meet new people and look forward to working with you to make the most of your interest in mathematics and statistics.

Now is a very exciting time to declare a major in mathematics or statistics. Opportunities for employment in STEM fields are at an all-time high and we encourage you to learn about ground-breaking research in many math-intensive areas. Although not required, we also encourage you to seek out internship or research opportunities with professors in our department. Here are just a few of the many interesting people and projects that undergraduate students have experienced working with:

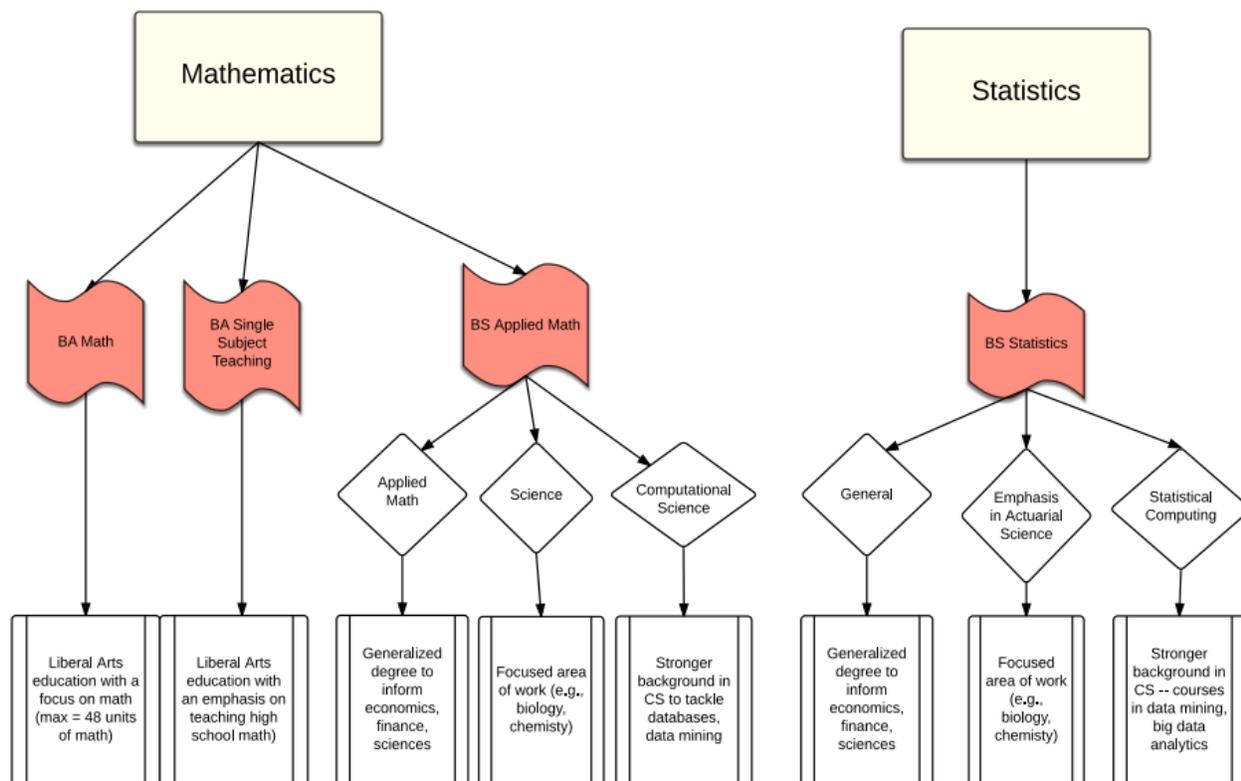
- Dr. Shen in the Climate Lab
- Dr. Carretero in the Bio/Dynamical Systems Lab
- Dr. Lin in the Consulting Statistics Center
- Dr. Bowers in University Peer Tutoring Program
- Dr. Ponomarenko in the Research Experiences for Undergraduates Project (REU)
- Dr. Salamon on Biological Modeling Projects
- Datathon: week long team data analysis

These are just a few examples, please visit each faculty member's webpage on www.math.sdsu.edu (under People) to learn about different faculty research interests.

Other jobs in the department that may provide insight, experience (and a little cash) include:

- Math/Stats Lab Tutor
- Grader for a class (if you do well in a class, you may want to be a grader the following semester, check with the individual professor if you are interested)
- Computer Lab Assistant
- Private Tutor

Majors at a glance



Major Advisors

Below is the list of the Mathematics and Statistics *major* advisors. They are the faculty members who will work closely with you while you choose your upper division courses. They will also answer questions regarding career opportunities and graduate studies. We encourage you to talk with your advisor as often as you like, but especially at the end of your freshman year (as they say, “the best time to see an advisor is before you have a problem!”).

Email is probably the easiest way to set up an appointment, but some advisors have specific office hours set aside for advising. Here are the current advisors for each major:

BS - Mathematics	<ul style="list-style-type: none"> ○ Dr. Carmelo Interlando (interlan@mail.sdsu.edu) ○ Dr. Joseph Mahaffy (jmahaffy@mail.sdsu.edu)
BA - Mathematics	General Mathematics <ul style="list-style-type: none"> ○ Dr. Carmelo Interlando (interlan@mail.sdsu.edu) ○ Dr. Joseph Mahaffy (jmahaffy@mail.sdsu.edu) Single Subject (Mathematics Teaching) <ul style="list-style-type: none"> ○ Dr. Janet Bowers (jbowers@mail.sdsu.edu)
BS - Statistics	<ul style="list-style-type: none"> ○ Dr. Barbara Bailey (bbailey@mail.sdsu.edu)

Getting ready to see an Advisor:

- Before seeing an advisor, you may wish to review your Degree Evaluation on SDSU WebPortal. The evaluation will indicate what courses you must take in order to fulfill a certain requirement (e.g., Preparation for the Major, Major Requirements, etc.);
- For all matters regarding SDSU graduation requirements, including General Education requirements and institutional policies and procedures, please confer with the advisors in the *Academic Advising Center* (Student Services West – 1551). They can also provide advice if you are undecided about a major, and can help you develop an educational plan consistent with your life goals and objectives.

What are the choices for a major?

Mathematics Major - B.A. Degree in Liberal Arts and Sciences (Major Code: 17011)

- General: (SIMS Code: 776301)
- In preparation for the Single Subject Teaching Credential (SIMS Code: 776303)

Mathematics Major - B.S. Degree in Applied Arts and Sciences (Major Code: 17031)

- Emphasis in Applied Mathematics (SIMS Code: 776313)
- Emphasis in Computational Science (SIMS Code: 776322)
- Emphasis in Science (SIMS Code: 776348)

Statistics Major - B.S. Degree in Applied Arts and Sciences (Major Code: 17021)

- General (SIMS Code: 776371)
- Emphasis in Actuarial Sciences (SIMS Code: 776372)
- Emphasis in Statistical Computing (SIMS Code: 776373)

Which math courses should I take first?

MATH 150 Calculus I (4) [GE] - Prerequisites: Knowledge of algebra, geometry, and trigonometry as demonstrated by either (1) satisfactory completion of Mathematics 141 with a grade of C (2.0) or above; or (2) satisfaction of the Entry-Level Mathematics requirement and qualification on the Mathematics Departmental Precalculus Proficiency Examination. Proof of completion of prerequisites required.

MATH 151 Calculus II (4) [GE] - Prerequisite: Mathematics 150 with minimum grade of C

MATH 252 Calculus III (4) [GE]- Prerequisite: Mathematics 151 with minimum grade of C

MATH 245 Discrete Mathematics (3) [GE] Prerequisite: Mathematics 124 or 150.
Recommended: Mathematics 151.

MATH 254 Introduction to Linear Algebra (3) [GE] - Prerequisite: Mathematics 151.

Where do I start?

Math 141 is a good starting point. If you feel that you have a solid understanding of algebra and trigonometry you can start with Math 150. In order to register for Math 150 you must satisfy one of the following.

- receive a C or better in Math 141, or
- receive a 3 or better on the AP Calculus test (AB or BC), or
- pass the Precalculus Proficiency Assessment administered by the SDSU Testing Office, or if you don't pass that assessment, establish competency using an online system called ALEKS. See: http://studentaffairs.sdsu.edu/testofc/precalc_prof_assessment.htm

If you took the AP AB Calculus exam and scored 3 or better you may enroll in Math 151. We recommend that students scoring 3 take Math 150. If you took the AP BC Calculus exam and scored 3 or better you can enroll in Math 252. We recommend that students scoring a 3 take Math 150 or 151.

Can I change majors within the Department of Mathematics and Statistics?

Yes, changing majors within the department is relatively easy, and we encourage you to keep an open mind as you take your first few courses. As shown in the chart below, all majors in the department have the same 6 lower division course requirements. We suggest that you finish those before changing your major. Talk with classmates and professors to find out what area interests you most.

	BA	BS Degree	
	Mathematics	Mathematics	Statistics
Lower Division	Math 150 Math 151 Math 252 Math 245 Math 254 Stat 250	Math 150 Math 151 Math 252 Math 245 Math 254 Stat 250	Math 150 Math 151 Math 252 Math 245 Math 254 Stat 250 (or 119)
Other Lower Division	SS: Math 241, TE 211 General: CS 107	CS 107, (108-depending on emphasis)	CS 107
Upper Division	No more than 48 total units in Math and Stat	Minimum of 36 upper division units (>300-level)	

Which courses have prerequisites?

All courses in the department (that are open to Mathematics majors) with numbers higher than 150 require Math 150 as a prerequisite. Many have other requirements as well. Please check the catalog for a complete listing of the courses and their prerequisites.

Other FAQs

- I tried to enroll in Math 150, and the system won't allow me to do it.
The campus registration system will not allow you to enroll in Math 150 until you have established that you have satisfied the prerequisites listed above. A precalculus course in high school is not a sufficient prerequisite for Math 150.
- Where do I go for help with my math classes?
*The *new* Aztec Math Center! Love Library, Room 410.
Hours of operation:
Monday-Thursday, 9 am – 9 pm
Friday, 9am – 12 pm
Sunday, 3-6 pm*
- Should I take all of my GE courses first, and then think about mathematics courses?
We recommend that you take the lower division courses as soon as you can. Generally speaking, majors take two or three per semester, depending on their level of difficulty to you.
- Are all courses offered every semester?
Due to financial constraints, we cannot offer every course every semester. In general, two-semester sequenced courses (e.g., Math 534A and Math 534B) are offered once per year with the "A" section offered in the fall, and the "B" section offered in the spring. But there are many other courses only offered once per year, so it is important that you check with your advisor on a regular basis to plan ahead.
- What courses will be offered next semester?
Please visit <https://sunspot.sdsu.edu/schedule/> The site also provides a list of courses that were offered in previous semesters. Although history cannot predict the future with certainty, our department tries – to the best of our capabilities – to be consistent with past years in terms of course offerings.
- Can I take courses in the summer?
Yes, some courses such as Math 150 and Math 151 are regularly offered in the summer. Other courses, such as Math 534A may be offered, depending on demand. If a summer course does not get sufficient enrollment (usually 20 students), the class will be canceled.
- How do I get to do research opportunities? Is there a particular class?
The best way to pursue research opportunities is to talk with professors. If you are taking a class that you particularly like, approach the professor to ask about research opportunities. Some instructors offer "independent study" courses labeled Math 299 or Math 499 for this purpose. There is also an undergraduate research symposium that features project reports from students all over campus. This is a judged competition and math majors always make an impressive contribution to the program.
- Can I drop a course?
Yes, up until the ADD/DROP deadlines. After that, you need to get a form signed, and a drop is not guaranteed.
- When are final exams? What are group final exams?
Be very alert to dates for your midterm and final exams. Some final exams are listed as Group Finals. Final exam schedule is available online on the Class Schedule webpage under Resources: <https://sunspot.sdsu.edu/schedule/#>
- Do I see my advisor if I need help in a particular math class?
No, advisors do not give extra help in particular subjects (other than the ones they are teaching!), please see your course professor during office hours or contact the professor via email. Do NOT wait until it is too late!