

Minor in Mathematics

Here are the requirements to obtain a minor in mathematics:

- Math 30
- Math 31
- One of Math 32 or 42 (Math 39, 33LA and 33A are also acceptable here)
- 3 upper division math classes numbered 108-179

Note that because of the overlap in the material, Math 129A/39 and Math 123/33LA can not both count towards the minor. The same also holds for the following pairs of courses: Math 133A/33A and Math 123/33LA, Math 33LA/33A and Math 134 (Prior to fall 2020). You may use more than 6 courses to get the minor but a minimum of 6 courses is required.

Another requirement for the minor is that 12 units must be distinct from your major. Some Science and Engineering programs require several math classes. As long as the math classes are “in preparation for your major” or “in support of your major”, they can count as distinct. The catalog will indicate which classes are in preparation for your major and which ones are in support of your major.

Example 1. BS Computer Science Major

For this degree program, students are required to take Math 30, 31, 42 and 39 in preparation for their major and those classes will count as distinct from the major. Note that courses that are used as major electives will not count as distinct. For example, if as CS major takes Math/CS 143C as a major elective, it will not count as distinct units (that's ok because there are enough lower division distinct units) but will count as an upper division minor course.

Example 2. BS Mechanical Engineering Major

For this degree program, students are required to take Math 30, 31, 32, 33A in preparation for their major and those classes will count as distinct.

How should you select upper division math classes.

Select the ones that interest you or that complement your major. Please check the course prerequisites on the online catalog. *Do not take a class if you have not satisfied the prerequisites.*

Pure Math classes: Math 108, 113, 115, 126, 128A, 128B, 129B, 131A, 131B, 138

More calculus: Math 112, 132

(Applied) Discrete Math: 127, 142, 146, 179

Applied Math: Math 134, 133B, 143C, 143M, 170, 177, 178

Statistics: Math 150, 161A, 161B, 162, 163, 164, 167R, 167PS

Is there a grade requirement?

Of course. You need to earn at least a C- on each course in the minor form. Moreover, your minor gpa must be 2.00 or above.

How do you apply for the Minor?

Take the classes that you need for the minor. You may request an advising appointment with the minor advisor if needed. The following paperwork should be handed in around a year before you graduate – that's when you apply for graduation.

Complete the following two forms and submit them to math-info@sjsu.edu.

- **Change of Major/Minor form.** This form requests to add the minor and can be found at the registrar's website. Make sure you use the most recent version of the form.
- **The Minor Form.** This form lists all the classes you are going to use to satisfy the minor requirements. Note that if you decide to change one of the classes in this form after it has been approved, you will need to fill out a substitution form which can also be found at the registrar's website.

- **Note:** If you received a 3-5 on the AP exam, you may list that as your Math 30/31 requirement.
 - **AP Calc AB** – list this as your Math 30 class and write in your score instead of a grade. In the space for “college”, write AP CALC AB.
 - **AP Calc BC** – list this for both Math 30 and 31 and write your score instead of the grade. In the space for “college”, write AP CALC BC.
- If you haven’t taken/finished the course listed on your minor form, write the semester you are or are planning to take it in the space for the grade.

More questions?

Make an appointment with the minor advisor: bem.cayco@sjsu.edu

For your convenience, you will find a link to our *Future Course offerings page* on our site: <https://www.sjsu.edu/math/courses/>



Name _____ Student ID _____
Last First Middle

Phone () _____ Email _____ Major _____

Permanent Address _____

Checked By Records Office _____ Proposed Date of Graduation _____

Course Requirements

COURSE	COLLEGE	UNITS	GRADE
Lower Division (10 units)			
Math 30	_____	3	_____
Math 31	_____	4	_____
Math 32 or 42	_____	3	_____
Upper Division Math Electives (9 units)			
Math _____	_____	_____	_____
Math _____	_____	_____	_____
Math _____	_____	_____	_____
Additional Courses			
Math _____	_____	_____	_____
Math _____	_____	_____	_____
Total Units		<input style="width: 50px; height: 30px;" type="text"/>	

A grade of C- or better is required for each course counted toward the minor. The GPA for courses used to satisfy the minor must be 2.0 or higher.

To be awarded a minor, **students need to take 19 units, at least 12 units of coursework must be completely distinct and separate from the coursework in the major** (University Policy S16-4).

Math 100W, 101, 105, 106, 107A, 107B, 180, 180H, 180R, 190 and certain Math 196 courses are NOT allowable Math Electives.

Math 123/33LA can only be included in the minor if neither Math 129A/39 nor Math 133A/33A is included in the minor. At most one of the Math 133A and Math 134 can be included in the minor.

All courses taken at a community college transfer to SJSU as lower division course credit.

Instructions:

1. Submit your minor form, request to add minor and a copy of your major form at the time you apply for graduation.

2. For minor advising, please contact Professor Cayco, bem.cayco@sjsu.edu

Signature of Advisor _____ Date _____

Signature of Department Chair _____ Date _____