

**San José State University**  
**Biomedical Engineering Department**  
**BME 298/BME299, MS Project, Fall**  
**2022**

**Course and Contact Information**

Instructor(s):	Ashkan Aryaei
Office Location:	NA
Telephone:	NA
Email:	Ashkan.aryaei@sjsu.edu
Office Hours:	TBA
Class Days/Time:	Select Fridays from 6:00 pm to 8:45 pm
Classroom:	Engineering Building 341
Prerequisites:	Admission to candidacy. Completion of BME 291 with “CR”

**Course Description**

BME 298: Master's project work in Biomedical Engineering. Prerequisite: Admission to candidacy. Pre- or Corequisite: 291.

BME 299: Master's thesis work in Biomedical Engineering. Prerequisite: Admission to candidacy. Pre- or Corequisite: 298.

**Course Information**

Upon completion of BME 291, all BME Master’s students must enroll in 2 units of BME 298. Students completing a thesis must then enroll in an additional 3 units of BME 299. All BME Master’s students who have completed 291 must be registered for at least 1 unit of BME 298 or 299 or UNVS 1290R for each semester (excluding summer) until they finish their project or thesis. UNVS 1290R is a special course with reduced tuition-type fees as described here <http://www.sjsu.edu/gradstudies/policy/rpguidelines/>.

BME 298/299 classes meet a number of times during the semester to cover material required for the student to complete their final project or thesis including final oral and written defense, including periodic progress reports. Attendance is mandatory. Students need to meet with their SJSU Research Advisor on a regular basis in order to accomplish the work their Reading Committee approved when their Thesis/Project Proposal was accepted. The BME 298/299 instructor will require proof that students are regularly in touch with their SJSU research advisor.

**Course Format**

This class will be held in-person. Synchronous class sessions will be held on select Fridays. All other relevant course information, will be posted to the Canvas page for the class. To complete the course objectives, you will need access to the Internet and use of a computer.

## **Faculty Web Page and MYSJSU Messaging**

Course materials such as syllabus, handouts, notes, assignment instructions, etc. can be found on the [Canvas Learning Management System course login website](http://sjsu.instructure.com) at <http://sjsu.instructure.com>. You are responsible for regularly checking with the messaging system through [MySJSU on Spartan App Portal](http://one.sjsu.edu) <http://one.sjsu.edu>. For help with using Canvas see [Canvas Student Resources page](http://www.sjsu.edu/ecampus/teaching-tools/canvas/student_resources) ([http://www.sjsu.edu/ecampus/teaching-tools/canvas/student\\_resources](http://www.sjsu.edu/ecampus/teaching-tools/canvas/student_resources))

## **Course Learning Outcomes (CLO)**

Upon successful completion of this course, students will be able to:

1. Prepare and deliver concise oral presentations of research objectives and progress
2. Prepare, deliver, and defend a detailed presentation of MS project or thesis work
3. Analyze and provide helpful feedback to peers regarding research and data analysis methods

## **Required Texts/Readings**

### **Textbook and Other Readings**

No textbook purchase is required for the class. Readings will be posted to the course website on Canvas.

### **Other technology requirements / equipment / material**

Access to a laptop, Internet connection.

## **Library Liaison**

The BME library liaison's contact information is below. Please feel free to contact her for help in locating resources for your report or thesis:

Anamika Megwalu

Phone: (408) 808-2089

Email: [anamika.megwalu@sjsu.edu](mailto:anamika.megwalu@sjsu.edu)

## **Course Requirements and Assignments**

[University Policy S16-9](http://www.sjsu.edu/senate/docs/S16-9.pdf), Course Syllabi (<http://www.sjsu.edu/senate/docs/S16-9.pdf>) requires the following language to be included in the syllabus:

“Success in this course is based on the expectation that students will spend, for each unit of credit, a minimum of 45 hours over the length of the course (normally three hours per unit per week) for instruction, preparation/studying, or course related activities, including but not limited to internships, labs, and clinical practice. Other course structures will have equivalent workload expectations as described in the syllabus.”

## **Final Examination or Evaluation**

### **Final Written Report**

Project and thesis students must both submit final written reports. Both thesis and project reports must follow the BME thesis guidelines. The thesis report must also follow the SJSU thesis guidelines. These are available on the BME graduate advising website.

You should be in frequent contact with your primary SJSU research advisor throughout the writing of the report. Contact your other committee members at least one month before the date of the defense to schedule the date and update them on your project.

At a minimum, a final draft following SJSU and BME Thesis/Project Guidelines and that has been proofread to remove all formatting, referencing, grammar and spelling errors needs to be given to the SJSU research advisor at least 3 weeks before the intended oral defense date (or earlier if your research advisor or committee members request that). Depending on the structure of the report, quality of writing, and technical analysis, some drafts may require extra time before a defense is allowed. An electronic copy of your final draft is due to the remaining committee members at least one week before your oral defense date.

For thesis students, the APPROVED final report is due mid-semester to graduate studies. For the exact due date, see the graduate studies website.

For project students, the APPROVED final report must be submitted to your primary SJSU research advisor by the last day of classes.

The final project or thesis report must be uploaded to Turnitin.com and reviewed by your primary SJSU research advisor. Your advisor will sign off on the review of this at your oral defense.

All Reading Committee members should be sent a copy of the thesis (after it has been bound by Graduate Studies) or a corrected copy of the project report.

### **Final Oral Defense**

Project and thesis students both must have an oral defense. The defense date should be scheduled at least two weeks prior to the due date of the final written report. This means a complete final draft with minimal errors of any type, editing, formatting, grammar, spelling, must be submitted to your SJSU research advisor at least six weeks before the final report due date. The SJSU Research Advisors will not schedule a defense date until they approve the final draft of the complete thesis or project report.

The oral defense will last one hour at least; you should plan to speak for approximately 30 minutes, with the rest of the time for questions. The defense must utilize professional presentation software such as Power Point including the guidelines presented in BME 291. The committee members should be given a hard copy of the slides at the presentation. The included rubric will be used by the committee members during the oral defense.

### **Grading Information**

BME 298/299 courses are graded on a CR/NC basis. To receive CR for each semester you are registered you must submit monthly milestone updates to your primary SJSU research advisor and make satisfactory progress on your research and/or writing.

The milestone update should include a revised milestone chart similar to the one developed as part of the 291 proposal. In addition, an executive summary reviewing the main accomplishments for that month, including any difficulties, results, and unanswered questions, should be included.

Occasionally, students will be asked to complete assignments for the class. Students who submit less than 90% of the class assignments will receive a NC in the class and need to repeat the class in a subsequent semester.

In addition to class participation at all class sessions, students are required to submit a final written report and submit evidence of a final oral defense to receive CR for the course.

### **Committee Members**

As per BME and University guidelines, the official Thesis Reading Committee must consist at the minimum of one BME tenured or tenure-track faculty member, another SJSU faculty member who can be tenured/tenure track or temporary, and a third member who can be another faculty, tenured/tenure track or temporary, or an industrial representative who has a Ph.D. or is a senior level manager. If the work is being sponsored off-site then the Reading Committee must contain a senior representative from the company/agency sponsoring the work. A minimum of two faculty members are required for an MS project. Additional members can be added such as additional industrial representatives. All official members described must be present (in person or via Zoom) at the oral defense or the defense will have to be rescheduled. Under no circumstances can the defense proceed if one of the described members is not present. However, the Reading Committee can change between the Proposal Defense and the Final Thesis/Project defense as long as the criteria above for Reading Committee Members described are satisfied.

The main research advisor need not be a member of the Biomedical Engineering department, but at least one reading committee member (for either a Thesis or Project) must be a faculty member in the Biomedical Engineering department.

### **Classroom Protocol**

Participation in all class activities is required to receive CR for the class. Students are expected to attend Zoom meetings on time, mute their microphones during presentations by classmates. Students should be respectful of their classmates and the instructor at all times, and treat all communications in the class as if they were face-to-face.

### **University Policies**

Per University Policy S16-9 (<http://www.sjsu.edu/senate/docs/S16-9.pdf>), relevant university policy concerning all courses, such as student responsibilities, academic integrity, accommodations, dropping and adding, consent for recording of class, etc. and available student services (e.g. learning assistance, counseling, and other resources) are listed on Syllabus Information web page (<http://www.sjsu.edu/gup/syllabusinfo>), which is hosted by the Office of Undergraduate Education. Make sure to visit this page to review and be aware of these university policies and resources.

# BME 298/299, MS Project Report/Thesis Preparation Seminar, Fall 2022, Course Schedule

## Course Schedule

<b>Class Meeting dates</b>	<b>Topics</b>
Aug 19	First class meeting: Syllabus, presentation requirements, Q&A
Sep 9	First presentation date
Oct 7	Second presentation date
Nov 4	Third presentation date
Dec 2	Fourth and final presentation date
Culminating Experience	Final Oral Defense – Schedule with your MS advisor and reading committee