Course and Contact Information

Instructor(s): Morris Jones  
Coordinator: Morris Jones  

*Your EE299B advisor(s) must also be your EE299A advisor(s). In special circumstance that you must change your thesis advisor(s), approvals from thesis advisors and Graduate Coordinator are required.*  

*Your EE299A advisor can deny to serve as your EE299B advisor based on your performance. In this special circumstance, you need to discuss with Graduate Coordinator to resolve the issue.*

Office Location: Morris Jones: E295 – Online  
Telephone: Morris Jones: (408) 507-4698 (cell)  
Email: Morris Jones: Morris.jones@sjsu.edu  
Office Hours: Th 4:30-5:30 By appointment  

Class Days/Time: Meet the Graduate Coordinator on the first Friday of the semester. Other meetings will be announced via emails by Graduate Coordinator. Have regular meetings with your thesis adviser(s) throughout the semester as scheduled by your thesis adviser(s). Make sure to follow the instructions on Canvas.

Classroom: TBD sjsu.instructure.com (Canvas)  
Prerequisites: Good standing (both overall GPA and GPA on Candidacy form are 3.0 or above), EE297A or EE299A with grade CR, EE295 with grade C or above or satisfaction of GWAR.

Course Description

EE299B is a course designed to help students complete a culminating experience master thesis. Students complete this course by completing all work required by their thesis advisor(s) and (on-time) submitting an approved thesis report, similarity report from turn-it-in, power-point presentation slides, and thesis poster for Student Projects Symposium event. *Your advisor must set up a private oral presentation for you with members of your thesis committee.* The work is under the direction of thesis advisor(s) and there is not EE299B class instruction. The EE Graduate Coordinator will coordinate document submission and the Student Project Symposium Chair will coordinate the EE299B posters.

*Note:* *Thesis committee chair must be a full-time EE faculty. Thesis committee members can be part-time faculty or a faculty from other department. At least 50% of the committee members (including the chair) should be EE full-time faculty.*
Notes:

- Your thesis committee chair defines the proposal format and contents. The master thesis proposal guidelines are available on the class canvas.
- **Only one (1) student per thesis.** Group work is NOT allowed for thesis.
- Enroll into EE299A by filling out EE299A Application form and submit the form to EE office for addcode. The EE299A application forms are available at link below:
  
  http://ee.sjsu.edu/files/public/Documents/MSEE/Forms/ee299aform.pdf

Course Format

Technology Intensive, Hybrid, and Online Courses

The class will be Hybrid with online instruction and lab work until the COVID-19 restrictions lift. The restrictions may not suddenly lift, but may be a progressive change of restrictions. The instructor will make all lectures available online if/when the course returns to campus.

The class will use technology for instruction and lab work. This requires Internet connectivity, a computer, a web cam is a plus for adviser interaction, and presentations. Most laptops have a webcam built-in. Students may be required to perform work in a remote access lab using industrial tools. This will require the SJSU free VPN software. (Search for VPN on the SJSU website), and possibly a RDP client program (Free in MS, MAC, and linux)

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 website. (sjsu.instructure.com) You are responsible for regularly checking with the messaging system through MySJSU/Canvas to learn of any updates.

Check in regularly with your adviser to find out what they expect from you during the semester.

Course Goals

Course Learning Outcomes

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

- Strengthen their critical thinking skills
- Develop skills for planning and scheduling a significant project
- Plan and manage their time for a project effectively
- Prepare documents without plagiarism
- Communicate written engineering concepts clearly
- Orally present project concepts effectively
- Work as productive members of an industrial team
- Continue to further PhD studies

Critical thinking has been described as:

A person who thinks critically can ask appropriate questions, gather relevant information, efficiently and creatively sort through this information, reason logically from this information, and come to reliable and trustworthy conclusions about the world that enable one to live and act successfully in it. ... critical thinking mimics the well-known method of scientific investigation: a question is identified, an hypothesis formulated, relevant data sought and gathered, the hypothesis is logically tested and evaluated.
Students who can think critically can:

- Determine what information is required to achieve an objective, find that information, and apply it
- Create designs from limited information
- Design tests that can prove that a design meet a specification
- Identify design errors, and adjust a design to meet specifications
- Ask meaningful questions after exhausting available resources when seeking help.

A course goal is students learn to enjoy a masters thesis through a hand-on approach.

Required Texts/Readings

Textbook
There is no text book.

Other Readings
Your adviser may require you to perform research and read papers from literature. Most of this can be found in the SJSU library.

Other technology requirements / equipment / material
The class will use technology for instruction and possible lab work. This requires Internet connectivity. Students will need a computer, internet connectivity, and software to interact with the course, and your thesis advisor(s).

Library Liaison
If you need help with library materials, contact the Engineering Liaison Librarian, Rachel Silverstein rachel.silverstein@sjsu.edu

Course Requirements and Assignments
1. Meet with thesis advisor as required and/or scheduled by the thesis advisor
2. Perform research and report to thesis advisor as required by the thesis advisor
3. Submit a thesis on time to GAPE (Earlier than EE deadlines) and complete defense to GAPE schedule
4. Attend and present the thesis at the Student Project Symposium

“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 practica. Other course structures will have equivalent workload expectations as described in the syllabus.”

Plagiarism:
You are expected to perform original writing on your proposal. All proposals must be submitted on canvas and will be checked for plagiarism. It is expected students will get a score of 15% or less. If you get more, and your adviser feels it is OK, they can write an exception letter, and send it to the graduate coordinator. The tool counts exact matches, paraphrasing, and phrase usages.

*The turnitin tool is not interactive. Expect delays of 24 hours after submission for a report on all but your first submission.*
Make sure you run drafts of your proposal through the submission before the deadline in case the proposal requires plagiarism revision.

**DO NOT SUBMIT YOUR THESIS PROPOSAL TO ANY OTHER WEBSITE OR LOCATION.** If you do, it will have 100% plagiarism, and your advisor will have to justify all sources.

**Expected student involvement:**

1. Students are expected to spend about 1 hours/week in meetings/correspondence with advisers, invest about 40 hours total in proposal writing, and dedicate about 120 hours to initial thesis work during the semester.
2. In addition, policy S12-3 makes the following statement: “Success in this course is based on the expectation that students will spend, for each unit of credit, a minimum of forty-five hours over the length of the course (normally 3 hours per unit per week with 1 of the hours used for lecture) for instruction or preparation/studying or course related activities including but not limited to internships, labs, clinical practical. Other course structures will have equivalent workload expectations as described in the syllabus.”
3. EE299B will exceed this minimum requirement.

**Responsibilities**

EE299B is a thesis class. The responsibilities are divided between the Graduate Coordinator, student project symposium chair, the student, and faculty thesis committee. The following table lists the responsibilities of each party during EE299B

<table>
<thead>
<tr>
<th>R = Responsible</th>
<th>A = Advise</th>
<th>M = Manage</th>
<th>F = Facilitate</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Time management</strong></td>
<td>Grad Coord</td>
<td>Proj. Symp. Chair</td>
<td>Proj. /Thesis Advisor</td>
<td>Student</td>
</tr>
<tr>
<td><strong>Thesis completion</strong></td>
<td>A</td>
<td>R</td>
<td></td>
<td>Must be <strong>strictly on time</strong></td>
</tr>
<tr>
<td><strong>Thesis submission</strong></td>
<td>F</td>
<td>A</td>
<td>R</td>
<td>Advisor can be a good resource</td>
</tr>
<tr>
<td><strong>Grammar check</strong></td>
<td>A</td>
<td>R</td>
<td></td>
<td>Use grammar checker(s)</td>
</tr>
<tr>
<td><strong>Plagiarism check</strong></td>
<td>F</td>
<td>A</td>
<td>R</td>
<td>Submit to canvas</td>
</tr>
<tr>
<td><strong>Thesis Defense</strong></td>
<td>R</td>
<td>M</td>
<td></td>
<td>Normally before submitting to GAPE to allow any changes to be incorporated</td>
</tr>
<tr>
<td><strong>Submit Thesis to GAPE</strong></td>
<td>A</td>
<td>R</td>
<td></td>
<td>Check Gape Schedule</td>
</tr>
<tr>
<td><strong>Submit Thesis for Publication</strong></td>
<td>A</td>
<td>R</td>
<td></td>
<td>Check Gape Schedule-- after GAPE approval of submission</td>
</tr>
<tr>
<td><strong>Presentation schedule</strong></td>
<td>F</td>
<td>M</td>
<td>M</td>
<td>05/18/21</td>
</tr>
<tr>
<td><strong>Poster</strong></td>
<td>F</td>
<td>A</td>
<td>R</td>
<td>Student prepares &amp; submits</td>
</tr>
<tr>
<td><strong>Presentation slides</strong></td>
<td>F</td>
<td>A</td>
<td>R</td>
<td>Student prepares &amp; submits</td>
</tr>
<tr>
<td><strong>Thesis grade</strong></td>
<td>F</td>
<td>R</td>
<td>M</td>
<td>Thesis Advisor must grade to Graduate Coordinator on time</td>
</tr>
</tbody>
</table>

**Final Examination or Evaluation**
Faculty members are required to have a culminating activity for their courses, which can include a final examination, a final research paper or project, a final creative work or performance, a final portfolio of work, or other appropriate assignment.

There will be a thesis and a final thesis poster presentation, which will contribute towards final evaluation.

**Grading Information**

Thesis and poster presentation 100%

*Thesis will be evaluated based on the following criteria:*

- **NOVELTY** (0-25 points): New facts, ideas, insights, innovative elements
- **METHODOLOGY** (0-25 points): Justification, sufficiency, validity
- **THE RESULTS** (0-25 points): Significance, quality, quantity, complexity, necessary details
- **THESIS QUALITY** (0-25 points): Discussion of related work, clarity, English, appearance (layout, figure, tables etc)

Grades are determined by your project Advisor. Consult with them for more details.

**Important Notes for EE299B Students:** Besides the department submission requirements and deadline stated, thesis students must also comply with university submission requirements and deadlines. Follow the instructions from SJSU Graduate Studies & Research office regarding the steps for completing a master's thesis at [http://www.sjsu.edu/gradstudies/thesis/](http://www.sjsu.edu/gradstudies/thesis/)

Students who did not submit completed set of thesis documents (thesis report, turn-it-in summary report, presentation slides, poster, etc...) or failed to submit them on time or did not complete the poster presentation will automatically receive grade NC (no credit) and must repeat the class. A student who completed the submission and poster presentation will have his/her grade assigned by the thesis advisor. Each advisor has his/her grading standard. Many advisors feel a passing grade requires preparation for publication. Each student should consult with their thesis advisor to determine the advisors grading standards. Not all students will receive a passing grade. Students who fail to complete the thesis will be given the fail grade.

**Report Pending (RP) grade** will be given only for unforeseen circumstances with supporting documentation (Doctors letter, request for thesis revision from GSR office, etc.) per University policy. Note that work, internships, other coursework, marriages, visas, or failure to complete the thesis on time will not be considered as unforeseen circumstances. In order to be considered for "RP" grade, student must fill-out a "RP Grade Agreement" form at [https://ee.sjsu.edu/webday/downloadable_forms/RP-Grade-for-EE299-Form.pdf](https://ee.sjsu.edu/webday/downloadable_forms/RP-Grade-for-EE299-Form.pdf) and have thesis committee chair's approval. A student who received RP grade in a preceding semester in a thesis class and completed all other course-work required for MSEE degree will be required to enroll for 1-unit EE1290R Special Session course to continue your student status.

**Timely submission**

It is important you submit your work on time. Most students require several revisions of the report, both for grammar as well as technical content revision. Your advisors are very busy at the end of the semester. It may take them several weeks to review and comment on your report. Don't waste your advisors time by submitting a
poorly written report with many grammar errors. Many students run out of time, and try to do the report quickly. It is then rejected, and revisions are required. You should have a draft report ready at least 3 weeks before the final submission. Many advisors are very busy during the last 2 weeks of instruction and are hard to find after the last day of instruction (are very busy in grading exams and preparing grades.) There are no office hours after the last day of instruction until the first day of instruction the following semester. Timely submission is your responsibility. Talk to your advisor to determine how much time they will need to review your paper. Think about your past writing, and plan time for revisions so you can be proud to have others see your work. The EE department may publish your report on the web. Use the automated tools to ensure your paper is free of grammar errors, and has no plagiarism problems before submitting to your advisor.

**Time and thesis management**

Students are expected to develop and practice time management skills. The thesis is a major work with limited instruction and instructor management. Students are expected to invest approximately 400 hours in their thesis work. This work cannot be done in a few weeks or at the last minute. Each student is expected to complete the proposed thesis. Significant time management maturity is required to complete a thesis during an internship or while working. Students are expected to plan and execute for success. Last minute thesis scope changes may result in significant problems. Students are responsible to manage their thesis to success.

**Advice on Report format**

The guidelines for M.S. thesis report and proposal are on the EE department website at [http://ee.sjsu.edu/content/projectthesis-guidelines](http://ee.sjsu.edu/content/projectthesis-guidelines). Follow the format described in the “Master’s Thesis Guidelines” at: [http://www.sjsu.edu/gradstudies/docs/thesis_guidelines.pdf](http://www.sjsu.edu/gradstudies/docs/thesis_guidelines.pdf). Reports typically have about 100 pages of written text. This does not include tables of content, code listings, figures, drawings, schematics, simulation plots, etc. Many students fall into a trap of just placing a number of figures at the end of the document, and hope no one reads the report. Every figure should have at least ½ the figure height of text explaining the figure. If you have nothing to say beyond the title for the figure/table, then you should discuss why the figure needs to be in the report, and not in an appendix. These reports will be published, and you and your advisor should be proud of your work and willing to show the world what you have done.

**Advice on paraphrasing/plagiarism**

Some students plagiarize unintentionally because they do not use proper paraphrasing. You CANNOT copy anything directly from another source, even something as small as a part of sentence. Also, changing a word or two in a sentence is NOT proper paraphrasing. You need to take a concept and completely re-write it in your own words and style, and reference the location of the source of the concept. To improve your paraphrasing, when you read a paper or website, take detailed notes and write everything down in your own words. Then when you write your paper, use only your notes, not the original sources.

**Classroom Protocol**

Students will turn their cell phones off or put them on vibrate mode while in class. They will not answer their phones in class. Students whose phones disrupt the course and do not stop when requested by the instructor will be referred to the Judicial Affairs Officer of the University.

**Zoom Classroom Etiquette**

- Mute Your Microphone:
  - To help keep background noise to a minimum, make sure you mute your microphone when you are not speaking.
• Be Mindful of Background Noise and Distractions:
  o Find a quiet place to “attend” class, to the greatest extent possible.
  o Avoid video setups where people may be walking behind you, people talking/making noise, etc.
  o Avoid activities that could create additional noise, such as shuffling papers, listening to music in the background, etc.

• Position Your Camera Properly:
  o Be sure your webcam is in a stable position and focused at eye level.

• Limit Your Distractions/Avoid Multitasking:
  o You can make it easier to focus on the meeting by turning off notifications, closing or minimizing running apps, and putting your smartphone away (unless you are using it to access Zoom).

• Use Appropriate Virtual Backgrounds:
  o If using a virtual background, it should be appropriate and professional and should NOT suggest or include content that is objectively offensive or demeaning.

Students will keep all conversations on the Chat box positive and professional. Students who violate this will be referred to the Judicial Affairs Officer of the University, and may be blocked from future class zoom meetings.

This course or portions of this course (i.e., lectures, discussions, student presentations) will be recorded for instructional or educational purposes. The recordings will only be shared with students enrolled in the class through Canvas. The recordings will be deleted at the end of the semester. If, however, you would prefer to remain anonymous during these recordings, then please speak with the instructor about possible accommodations (e.g., temporarily turning off identifying information from the Zoom session, including student name and picture, prior to recording).

**Students are not allowed to record without instructor permission**

Students are prohibited from recording class activities (including class lectures, office hours, advising sessions, etc.), distributing class recordings, or posting class recordings. Materials created by the instructor for the course (syllabi, lectures and lecture notes, presentations, etc.) are copyrighted by the instructor. This university policy (S12-7) is in place to protect the privacy of students in the course, as well as to maintain academic integrity through reducing the instances of cheating. Students who record, distribute, or post these materials will be referred to the Student Conduct and Ethical Development office. Unauthorized recording may violate university and state law.

It is the responsibility of students that require special accommodations or assistive technology due to a disability to notify the instructor, and register with the AEC.

Students are required to follow the University COVID-19 policy whenever they come to campus. Check the SJSU website often for the latest information as requirements from several layers of government change frequently. They are included below, but may change.
Before Coming to Campus (as of 8/10/20. Check on www.sjsu.edu for any updates)

299B students can only come to campus if invited by their advisor to accomplish things which cannot be performed remotely.

The students must fill out and obtain permission from the Deans office, complete required COVID training, and fill out appropriate online forms for each visit. Note that at this time the campus is closed until February 15 due to increased COVID levels in Santa Clara County.

**Symptom Monitoring**

Students, faculty, and staff who have been instructed or permitted to return to campus must conduct symptom monitoring every day before traveling to (or, for on-campus residents, moving through) campus. You must be free of ‘ANY’ symptoms potentially related to COVID-19.

At this time, these symptoms include one or more of the following:

1. Cough
2. Shortness of breath or difficulty breathing
3. Fever
4. Chills
5. Repeated shaking with chills
6. Runny nose or new sinus congestion
7. Muscle pain or body aches
8. Headache
9. Sore throat
10. Fatigue
11. Nausea
12. Vomiting
13. Diarrhea
14. New GI symptoms
15. New loss of taste or smell

**You may not return to campus if you have:**

Traveled to/from a country that has been flagged by the Centers for Disease Control and Prevention's (CDC) travel advisory within the last 14 days,

Been in close contact with someone who has traveled to/from one of the countries on the CDC’s travel advisory within the last 14 days,

Tested positive for COVID-19. The local Public Health Department will be notified by the testing agency when an individual tests positive for COVID-19. Even if you aren’t exhibiting symptoms, SJSU requests that you complete a “Reporting a Case of COVID-19” online form. A report case manager will contact you shortly after the initial survey. They will offer support resources and inquire about recent on-site activity and university related contacts that could require notification.

**Contact Tracing**

If you test positive for COVID-19 in Santa Clara County, someone from the County of Santa Clara’s contact tracing team will contact you. This procedure is used to help inform you of care and resource options, as well as help identify other people you might have come in contact with, in order to properly take precautions to prevent the spread of the virus. You will be interviewed on the following topics:

1. Symptom monitoring and care access:
   a. How are you feeling;
b. Do you have access to a primary care provider? If not, you will be provided resources on how to be connected to one;

c. How to monitor your symptoms;

d. How to properly isolate and quarantine yourselves in their residence;

e. If you cannot safely isolate and quarantine yourself in their residence (e.g., no private space to do so), you will be referred to housing resources and services.

2. You are considered a close contact of a COVID-19 positive person if you were within 6 feet for 15 minutes or more, regardless of whether either person was wearing a face covering, during the period the COVID-19 positive person is considered contagious.

Contact tracers will then follow-up with the individuals identified by you in order to notify them, encourage them to quarantine themselves, educate them on self-monitoring, and provide resources as needed. They will also be interviewed for potential individuals they were in contact with within a certain time period and contact tracing protocols will be repeated with those individuals.

Please note, that contact tracers will never ask for financial information, social security numbers, or for immigration status/citizenship.

Populations at Higher Risk for COVID-19 Infection

According to the CDC, individuals with certain conditions may have a higher risk for COVID-19 infection. Those conditions may include:

1. Older adults (aged 65 years and older)
2. People with HIV
3. Asthma (moderate-to-severe)
4. Chronic lung disease
5. Diabetes
6. Serious heart conditions
7. Chronic kidney disease being treated with dialysis
8. Severe obesity
9. Being immunocompromised

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 (https://www.sjsu.edu/curriculum/courses/syllabus-info.php). Make sure to visit this page to review and be aware of these university policies and resources.

San Jose State University
Electrical Engineering Department
EE Department Honor Code

The Electrical Engineering Department will enforce the following Honor Code that must be read and accepted by all students.

"I have read the Honor Code and agree with its provisions. My continued enrollment in this course constitutes full acceptance of this code. I will NOT:

1. Take an exam in place of someone else, or have someone take an exam in my place
2. Give information or receive information from another person during an exam
3. Use more reference material during an exam than is allowed by the instructor
4. Obtain a copy of an exam prior to the time it is given
5. Alter an exam after it has been graded and then return it to the instructor for re-grading
6. Leave the exam room without returning the exam to the instructor."
Measures Dealing with Occurrences of Cheating

- Department policy mandates that the student or students involved in cheating will receive an "F" on that evaluation instrument (paper, exam, project, homework, etc.) and will be reported to the Department and the University. A student's second offense in any course will result in a Department recommendation of suspension from the University.

Additional Information

All course papers, documents and correspondence shall be written to graduate level writing standards. The course uses IEEE format for citations.
EE299B/MSEE Thesis, Spring 2021, Course Schedule

Dates and assignments can change with class notice. Please check on Canvas and the GAPE website.

Course Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Topics, Readings, Assignments, Deadlines</th>
</tr>
</thead>
<tbody>
<tr>
<td>01/29/21</td>
<td>Introduction Meeting on Zoom. 2:00 AM Pacific Time</td>
</tr>
<tr>
<td>02/15/21</td>
<td>Last Day to add the course</td>
</tr>
<tr>
<td>02/24/21</td>
<td>Enter Thesis title and Advisors in google form. (Link in Canvas)</td>
</tr>
<tr>
<td>03/29/21</td>
<td>Spring Break – No class</td>
</tr>
<tr>
<td>04/02/21</td>
<td>Spring Break – No class</td>
</tr>
<tr>
<td>04/12/21</td>
<td>Approved Thesis due to GAPE</td>
</tr>
<tr>
<td>05/17/21</td>
<td>Upload Gape approved Thesis to Canvas</td>
</tr>
<tr>
<td>05/18/21</td>
<td>Final presentation. Advisors will evaluate your thesis. Likely done at semester end.</td>
</tr>
</tbody>
</table>

In addition to these departmental dates. You need to meet all GAPE dates. Please check the GAPE website for the exact date and application requirement when posted. [https://www.sjsu.edu/gape/current_students/deadlines/](https://www.sjsu.edu/gape/current_students/deadlines/)

Information at time of syllabus creation: **Check the GAPE website for any changes**

<table>
<thead>
<tr>
<th>Document Type</th>
<th>What</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>MySJSU Online Application (First-time applicants)</td>
<td>Graduation Application Deadline</td>
<td>Feb. 1, 2021</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graduation Date Change Request for Award of Master's Degree</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thesis for review to Graduate Studies</td>
<td>Thesis Review Deadline</td>
<td>Apr. 12, 2021</td>
</tr>
<tr>
<td>Please submit after your thesis committee has approved your thesis work.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thesis for publication to Graduate Studies</td>
<td>Please submit your thesis for publication after the Graduate Studies Office has approved your thesis.</td>
<td>June 7, 2021</td>
</tr>
<tr>
<td></td>
<td>This deadline may delay graduation.</td>
<td></td>
</tr>
</tbody>
</table>