

EEE 499 ENGINEERING DESIGN II



GRADUATION PROJECT COMMITTEE (GPC)

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<http://eee499.gantep.edu.tr/eee499-gpc-meeting.pdf>

Objective of this presentation

To make the student aware of the general purpose and requirements of EEE 499.

There is a lot of important information to absorb; it can all be found on the course website:

<http://eee499.gantep.edu.tr/>

Outline

- The GPC
- The Course Website
- Project Allocation
- Expectations
- Course Assessment
- Presentation Guide
- Written Report Guide
- Ethics
- Safety
- Experiment Design
- Realistic Constraints

The Graduation Project Committee

The GPC:

- Coordinates EEE499 and provides information to students and supervisors.
- Ensures proposed projects comply with EEE499 regulations and goals.
- Ensures completed projects comply with EEE499 regulations and goals (the GPC can reject or downgrade a completed project).
- Provides a mediator for disputes.

The Course Website

<http://eee499.gantep.edu.tr>

Overview

Schedule

Meetings

GPC

Projects

Participants

Safety

Presentations

Regulations

Ethics

Discussion

Plagiarism

Photos

Contacts

Please study the course website carefully, especially the regulations and the course schedule:

<http://eee499.gantep.edu.tr/regulations.php>

and

<http://eee499.gantep.edu.tr/schedule.php>

Project Allocation

The GPC allocates a project to each student on a "first-come first-served" basis.

Early allocation of projects for next semester start around mid-term.

Projects are performed **singly** (only for interns) and **in groups**.

Expectations

Students are expected to achieve a good standard in the following areas:

- **Planning***, design and construction.
- Oral communication of the work (see the presentation guide).
- Written communication of the work (see the written report guide).

It is also expected that the project is **complete**, and corresponds to the specifications of the **original project proposal**. Deviations from this should be explained.

* **EEE 499 Project Proposal Form** must be filled by the students and submitted to the supervisor within the first two weeks of the project.

Course Assessment

Each student is assessed by a committee in a systematic manner. To give a better idea of the expectations from a successful project, we present here the assessment form that the committee members are suggested to use.

EEE499 Graduation Project Assessment Form		Date: / /2022	
Student's name:		Supervisor's name:	
Project title:		Supervisor's signature:	
A – ON-LINE MID-TERM PRESENTATION [5 marks] <i>Take section C as your guide. Please tell the student where he/she is under-performing!</i>		score on a scale from 0 to 5	
B - WRITTEN REPORT [30 marks] <i>(assessors should read, score and sign the report before the final presentation)</i>			
[Quality] Is the report well written with figures and tables of a suitable standard?		score on a scale from 0 to 10	
[Content] Does the report contain all the required components: a title, content, list of figures/tables/symbols, introduction, analysis, results, cost, conclusion, references and appendices (including the project schedule)?		score on a scale from 0 to 10	
[Target] Does the report present a study that follows closely the given title of the project, and in your opinion satisfies the requirements of a graduation project?		score on a scale from 0 to 10	
C – ON-LINE FINAL PRESENTATION [30 marks]			
[Well prepared and delivered] Was the presentation well prepared (outline of the subject and goals, basic concepts and methods, effective use of the time)? How did you find the explanation capability of student? And did the presentation (not rely on memorization or reading from a script)?		score on a scale from 0 to 10	
[Questions] How well did the student understand and answer the questions?		score on a scale from 0 to 10	
[Overall success] How do you rate the overall success of the project? Here, take into consideration the level of difficulty of the project. For example if the project was very successful but too easy then drop some marks. If the project was not successful at all but very difficult then give some marks. If uncertain give ≈ 8 marks.		score on a scale from 0 to 10	
D - SUPERVISOR'S ASSESSMENT [30 marks]			
What is your overall opinion of the student with respect to the project?		score on a scale from 0 to 10	
During the semester, did the student attend your meetings and take your advice according to your expectations?		score on a scale from 0 to 6	
How do you assess the design skills and engineering design work that the student has developed and used during the project?		score on a scale from 0 to 7	
How do you assess the project's success in fulfilling the realistic constraints stated in the project description?		score on a scale from 0 to 7	
E - POSTER ASSESSMENT [5 marks]		score on a scale from 0 to 5	
GRAND TOTAL (OUT OF 100)			
GRADE			

Course Assessment continued

The committee will assess and score your projects according to midterm and final **presentations**, **written report**, **poster**, **attendance** to meetings, and **general success** as follows:

- **5% mid-term presentation**
- **30% written report**
- **30% final presentation**
- **30%** The evaluation by the project supervisor
 - **opinion** of the student's work (10%)
 - **design** in the student's work (7%)
 - **realistic constraints** met or not in the student's work (7%)
 - and the student's **attendance** (6%)
- **5% Poster** (reasonable poster)

Course Assessment continued

Grades are assigned by the GPC according to the standard score-to-grade conversion.

Score	Grade	GPA
95-100	AA	4,00
90-94	BA+	3,75
85-89	BA	3,50
80-84	BB+	3,25
75-79	BB	3,00
70-74	CB+	2,75
65-69	CB	2,50
60-64	CC+	2,25
55-59	CC	2,00
50-54	DC	1,50
45-49	DD	1,00
40-44	FD	0,50
<40	FF	0,00
Not attended	NA	0,00

Important: if you do not attend the final presentation, or do not submit a report, then your grade will be "n/a"

Course Assessment continued

Grades are a result of detailed assessment.

Our experience is that:

"the more hours you dedicate to your project, the higher grade you will get".

Also, make sure you
work closely with your supervisor.

Presentation Guide

- Presentation groups and schedule will be announced here:
<http://eee499.gantep.edu.tr/participants.php>
- Prepare well in advance of the presentation day.
- Prepare a clear/tidy presentation using PowerPoint or Impress or similar.
- Make sure you have a backup of your presentation on the Internet and/or flash drive.
- **Duration:** each student has 5 minutes in group projects, 10 minutes in single student projects.
(in the Final Presentation: + 5 minutes for introduction + 5 minutes for hardware demo + Q&A)

Don't waste time giving irrelevant/trivial information!

Presentation Guide continued

- Clearly present an outline of the project subject and its goals.
- Understand your subject well - don't rely on memory or reading from a script.
- Make use of the time effectively.
- Be ready for questions.
- In your midterm presentation, share the **laboratory sheet** of your experiment design with the committee and discuss how you will test your project outcomes and final product.

Presentation Guide continued

- In group projects, where each member will present his/her own part, keep in mind that one or more of the group members should also present the project outline, goals, etc.
- In your midterm presentation, take careful note of any feedback you get from the audience.
- In your final presentation, emphasize your achievements regarding the project goals. Also elaborate on how your project satisfies operation requirements under realistic constraints that were put forward in the project proposal.

Written Report Guide

Read carefully!



<http://eee499.gantep.edu.tr/written-report.php>

There are four key dates when you need to give electronic versions, and lastly two hard copies of your report to the department; the exact dates (*deadlines*) are given in the course schedule:

- A draft of your report should be given (emailed) to your supervisor in the form of MS Word files at least one week before the final deadline.
- Before the final deadline, a corrected or final version should be given to your supervisor in the form of MS Word files and pdf format so that she can check your corrections and approve the final version of the report.
- By the final deadline, the final version of your report should be given (e-mailed) to your supervisor AND to the GPC in pdf format.
- By the last day of the schedule give two hard copies of your written report to the department secretary **before 5 pm**

Written Report Guide continued

Make sure that your report satisfies all requirements before submission. We have a **checklist** you can use for that at the course website, download and read it carefully.

Late reports!

A final report that is not submitted by the deadline will have 5 points deducted for each day late.

i.e. the score out of 30 given by the supervisor will be scaled by 25/30 if submitted one day late, 20/30 if submitted two days late, and so on ...

Written Report Guide continued

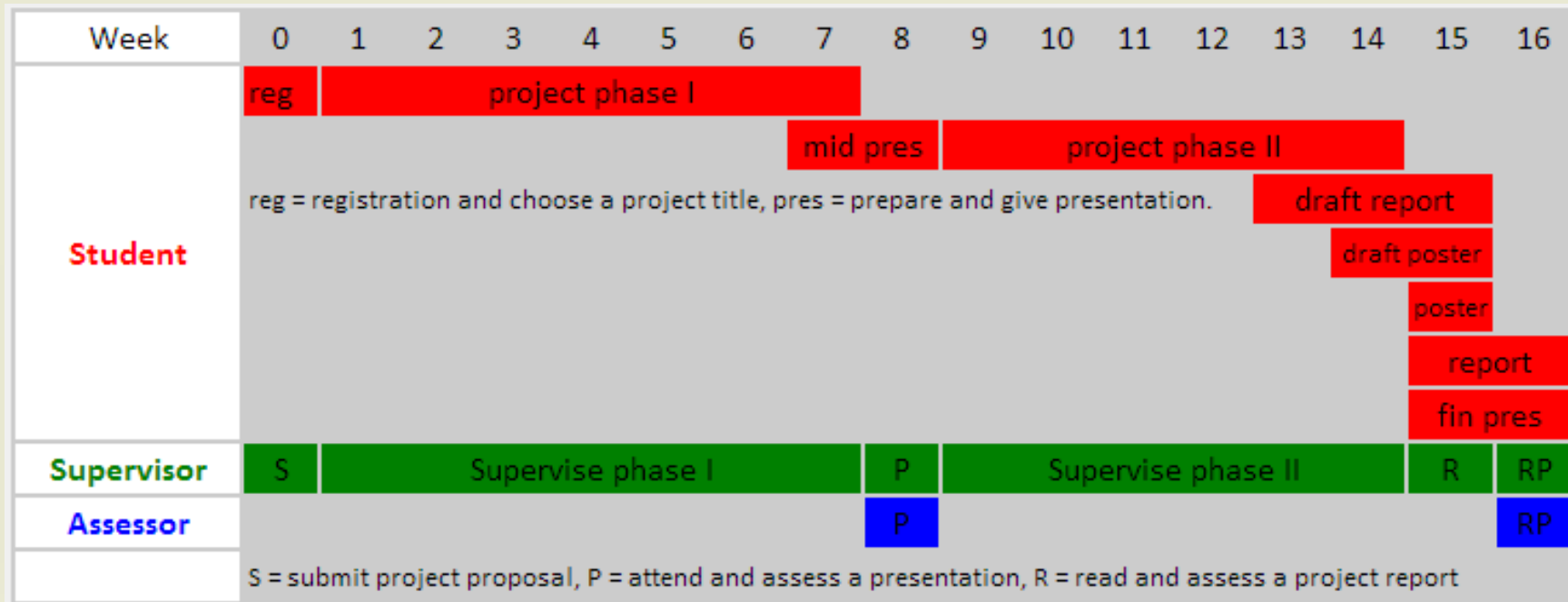
An essential part of a good project is the Gantt Chart

- The Gantt Chart must be prepared at the beginning of the project and should cover the whole project duration.
- All major tasks and relevant information (start and end dates, etc.) must be included.

A simple Gantt chart can be designed using, for example, MS Office Excel.

Written Report Guide continued

A simplified Gantt chart for the EEE499 giving an impression of how many weeks we have for the projects (start to end).



Written Report Guide continued

Format and MS word templates

The project report format, which should be strictly applied, is given on the project website in the form of MS word templates:

<http://eee499.gantep.edu.tr/written-report.php>

1. [eee499-written-report-template-readme.txt](#) - Notes about the templates.
2. [eee499-written-report-template-head.doc](#) - Title and head pages.
3. [eee499-written-report-template-body.doc](#) - Main sections, References, Appendices
4. [eee499-written-report-template-plan.xls](#) - Excel file for the project plan (Gantt chart)

Electronic files

In most part, it should not be necessary to handle paper during reporting your project.

Reports are usually handled as MS Word and PDF, posters as PowerPoint and PDF, and presentations as PowerPoint.

Notes of caution:

1. Keep backups of your files on a flash and cloud storage.
2. Supervisors are advised not to insert a students flash drive into his/her computer - on some occasions they have contained trojans! Instead please email the file or link to the cloud storage.

Ethics

The purpose of the following ethical guidelines are to encourage fairness and a better learning environment.

The department expects each student to:

1. give credit to and declare (by citation) any work that is not their own (e.g. parts of the report that is copied/pasted from the Internet, design or construction performed by another person, etc.);
2. not receive unpermitted aid for the project design, construction, report or presentation;
3. actively encourage others as well as themselves to uphold the spirit of the above guidelines.

Plagiarism (copy/paste without giving credit)

All project reports are checked for plagiarism.

Reports found to contain a significant amount of duplicated and unattributed content will be rejected resulting in a substantial loss of score.

Please ask your supervisor to check your project draft well before the draft deadline.

Your supervisor will advise you on which parts of the report should be rewritten.

Safety!

Please note the responsibility you have to ensure the safety of yourself and others.

This is especially important if you are interfacing high voltage mains electricity to your project or your project generates high voltage.

See <http://eee499.gantep.edu.tr/safety.php>

Experiment Design

After a successful project design and construction process, outcomes and manufactured product should be rigorously tested. This is necessary in order to make sure the product will function as planned and outcomes satisfy the requirements of the project, including **realistic constraints (see next slide)**.

Students are expected to design a proper experiment that involves tests to reveal the performance of the final product of the project. The experiment design should be presented in a laboratory sheet format by the midterm presentations and discussed with the project supervisor. It is expected that the experiment is practically conducted and results are analysed before the end of semester. Performed experimental work and obtained results should be presented in the written report and final presentation.

Students can use laboratory sheets of department courses as typical examples.

Realistic Constraints

In most of the EEE499 project proposals, details about the realistic constraints for practical implementation of the project results are provided. These constraints are meant to be the guidelines for the design phase of the project work, following which the students can make sure the project yields a useful product with practical value. In addition to cost, size and used material, which can be considered as standard constraints for all projects, a variety of specific realistic constraints can also be put forward as a requirement (e.g. temperature range, sunlight exposure limits, weight limits, durability to environmental conditions like dust or moisture, power consumption requirements, etc.). **Designed experiments (see previous slide)** will help the students reveal whether these constraints are met or not. By the end of the semester, each project is expected to be verified in terms of adherence to realistic constraints (you are advised to discuss this with your supervisor).

Thank you for your attention

Please get in touch with your supervisor ASAP, arrange your weekly on-line meetings and make sure you attend all. Do not forget to prepare and submit your **EEE499 Project Proposal Form** to your supervisor at the first meeting.

You can forward your queries about your project to your supervisor, and for other issues relating EEE499 you can reach the GPC:

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