

EEM 342: Fundamentals of Control Systems
2023-2024 Spring Semester General Information

The course syllabus is available at:

https://eem.eskisehir.edu.tr/Uploads/eem/files/342_syllabus.pdf

From there you can find links to useful information about the course and to weekly notes. The links from the syllabus and all the subsequent links (except the external links) include only the file names (not the complete url); they should work if you open all the files in your browser from the original site. However, they will not work if you download a file to your computer, unless you also download the referenced file and put it in the same directory as the referring file without changing its name.¹ In any case, all the links (except the external links) will work if you put the url “<https://eem.eskisehir.edu.tr/Uploads/eem/files/>” in front of the file name. Also, remember that, when you reconnect to any page, you may have to refresh your browser to see the new updates. Syllabus itself will be updated often. So, you have to check it at least once a week. When we update a document linked from the syllabus, we will put a notice next to the link indicating the update date.

Lectures will be on Thursdays at 14:00 in Class Room E5. Although I plan to follow the weekly notes during the lectures, we may also discuss additional material and solve extra examples during the lectures. You will also have the chance to ask any questions to clarify the material during the lectures. So, you are strongly encouraged to attend all the lectures. In fact, it is best if you go through each note before that week’s lecture and restudy it after the lecture. At the end of each note (at the end of each part of notes for some weeks) there are also links to related exercises. The solutions to most of the exercises are also available. However, you are advised to first try to solve the exercises without looking at the solutions and then compare your own solutions to the solutions provided. If you can not solve any exercise, you have to go back and restudy the related material. In addition to the weekly notes, you can always consult to any one of the textbooks listed in the syllabus, for further information.

Please do **not** use ogrenci bilgi sistemi or Mergen to send messages to me. Instead send an email to aiftar@eskisehir.edu.tr from your own email account, so that I can reply to it. My office is EEM 210 (across the Department Head’s office). You are welcome to stop by anytime I am in to ask questions about the course. The best times to catch me in my office are Monday and Wednesday afternoons.

20% of your course grade will come from the **Laboratory** part of the course. Attendance to each laboratory session is mandatory. See the link “Laboratory Information” from the syllabus for information on the laboratory. The first laboratory session will be held during the second week of classes (starting on February 26). Be sure to study the related material as described under the link “Laboratory Information” before coming to your first laboratory session. Note that the preparation for the first session may take several hours. Therefore, **you should start preparing for it as soon as possible.**

If you took this course during the 2021–2022 academic year (2022–2023 year does not count, since we were not able to hold in-lab experiments) and obtained a passing laboratory grade (at least 50 out of 100),

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you may be **exempt from the laboratory**, in which case your laboratory grade obtained during the 2021–2022 academic year will also be valid this year. If you are qualified and want to be exempt from the laboratory, send an email to **aiftar@eskisehir.edu.tr** before February 21, 2024 Wednesday Noon, stating that you want to be exempt from the laboratory and indicating your student id, full name, and the group you are registered to. Your exemption (or otherwise) will be confirmed by reply email. If you do not claim an exemption you will have to do all the laboratory work and the grade you obtain this year will be valid irrespective of your previous grade.

The rest of the grading will be based on mid-term exams and the final exam. Two **mid-term exams** are planned as follows:

Exam	Tentative Date and Time	Coverage
1	28 March 2024 Thursday 14:00	Weeks 1–5
2	16 May 2024 Thursday 14:00	Weeks 1–12

Both mid-term exams will be classical written in-class exams.

Final exam will be in two parts. Part I will be a supervised practical exam, in which you will use MATLAB and Simulink, and will be held during the last week of classes. Part II will be a classical written in-class exam and will be held during the final exams period.

Matlab (together with Simulink) is a very useful tool to analyze and design control systems. It is to your benefit to learn how to use Matlab and Simulink. See the link “Matlab Information” from the syllabus for information on how to access and use Matlab. There are also a number of exercises under this link, which you should solve in due time. These will both familiarize you with Matlab and help you understand the course material better. Also, **in Part I of your final exam, you will face with questions similar to those in these exercises**. Therefore, you should solve all these exercises before the last week of classes. You will also use Matlab in the 4th and 5th laboratory sessions. Therefore, you should have working knowledge of Matlab and Simulink by the date of the 4th laboratory session.

I wish you all a healthy and fruitful semester....

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