

ELG3336

Introduction to Laboratory

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ELG3336 Course

- Course website
 - <http://www.site.uottawa.ca/~rhabash/ELG333613.html>
- Instructor:
 - Prof. Riadh Habash: E-mail: RHABASH@eecs.uottawa.ca
 - Office hours: Check Prof. Habash's website.
- TAs
 - **Mahfuz:** upal41@gmail.com
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Outline

- Introduction to the laboratory session
- Lab hours
 - THU (CBY B302: 14:30-16:00; 16:00-17:30)
 - MON (CBY B302: 11:30-13:00)
 - Contact us with your questions.
- Tutorial: WED, 16:00-17:30
- You can ask your questions to all TAs, more specific questions to your corresponding TA. By the end of first week you should know who your corresponding TA is. He is the one you will be working with in your labs and project.
- Meeting with your TA is possible, based on appointment set in prior via sending email.

Lab Duration: Weeks/Lab

- We will have a **maximum** of **two weeks** to complete one experiment. However, if all students complete an experiment in the first week, we will move to the next experiment in the following week.
- We will possibly take a break in the labs after we complete two experiments (we will let you know the exact date in due time), which will be devoted to project discussion and preparation of the students' project proposals.

Lab. Group Formation

- Lab/Project Groups
 - 3 persons per group, group members to be chosen by the group itself
- Students are required to form a group of 3 students. They will do all the labs together as a group.
- Each group will be working under the supervision of a TA. He/she will be the group's corresponding TA.
- Form and submit your group members' names by **11 September 2013** the latest.
- The same group will be your project group.
- The same TA will supervise you in your project.

Lab. Score Distribution

- Lab score is on 10 (i.e. 10% of the course)
- We have 4 labs to do in this semester.
- Each lab is scored on a scale of 10.
- Average score of all labs on 10 will be forwarded to the professor at the end of the semester.
- The score 10 on each lab is distributed as per the following:
 - Prelab (3) + Participation (3) + Report (4) = 10

Prelab

- You have to do simulation works of the lab experiment before you actually do the experiment in actual circuits.
- **Multisim** software package is used for simulations.
 - Multisim is available in all computers at EECS laboratories.
 - You may have Multisim in your own computer, too. Talk with lab technician Mr. Michel Robert (mrobert@site.uottawa.ca) in this regard to check if this is possible.
- **It is your responsibility to do the pre-lab completely before you start the experiment. You have to learn Multisim if you have not done so yet.**
- Multisim is a very useful simulation program. It helps you to find out what results you would be expecting in the actual experiment.

Prelab

- **“No prelab, no participation policy.”** So, you are NOT allowed to participate in the experiment part unless your prelab is submitted before the start of the lab.
- If your prelab is done completely and correctly you may expect a good score on the prelab (on a scale of 3).
- **NOTE: Prelab needs to be submitted individually (i.e. per student) to your corresponding TA.**
- Prelab score is given per student.

Participation

- We have a score of 3 on the lab participation part. This means the completion of the experiment correctly and on time. It is a group score.
- Participation requires two things.
 - You have submitted the prelab **individually**.
 - You are present in the lab session.
- Participation score is given per group.

Lab Report

- We have a score of 4 on lab report.
- Lab report needs to be submitted per group, to your corresponding TA.
- A standard lab report has the following sections
 - Objectives
 - Introduction (some concepts as per needs)
 - Parts/components used
 - Experimental data
 - Critical analysis of the data
 - Summary and conclusions
- Procedure section is not required in the report.

Lab Report

- Lab report is due on or before you start the next lab. For example, your group can submit Lab Report-1 on or before you start Lab-2, and so on.
- Lab reports need to be submitted to your corresponding TA. So, know your TA's name and email address.
- Lab reports need to be submitted in hard copies unless there arises extra-ordinary circumstances where electronic version may be accepted.

Projects

- Each group is required to do a group project as part of the course.
- Score: 20 (i.e. 20% of the course)
- Think about a mechatronic project and write a proposal **(due on 03 October 2013)**
 - Proposal length (1-2 pages): idea, how to do it, etc.
 - Talk about your project ideas with your TA.
- **Very Important: The project MUST contain a good balance of “mechanical” and “electrical/electronic” parts.**
- Some examples of good projects from previous years can be found through Prof. Habash’s website.

Project Proposal

- In the project proposal you need to provide
 - The title of the project
 - Idea and motivation
 - Explanation of how you will implement the idea
 - Any circuit diagram, mechanical drawing etc.
 - Parts that you will probably need

Project Progress Reports

- Each week after **03 October 2013** a project progress report needs to be submitted to “all” TAs.
- Start a new PowerPoint file and name it as follows
 - **ELG3336_Proj_Lastname1_Lastname2_Lastname3_Date.ppt**
- This will be your project progress report file. Each week you will add more materials in this same file and then you will send the updated file to **all** TAs who will keep track of your progress.

Project Progress Reports

- In the project progress report you will provide
 - Progress that you made last week
 - Tasks you are planning to do this week
 - Anything you think important to include
- **Note that weekly project progress report contains a score. So, reporting your progress is very important. At the same time, good progress leads to successful completion of your project.**

References

- ELG3336 textbook
- ELG3336 lab document available at
 - <http://www.site.uottawa.ca/~rhabash/ELG333613.html>
- Always see the deadlines posted at Prof. Habash's course website.

Thank you.

- Ask us your questions. Make sure you understand the experiments completely.

