

UNDERGRADUATE FINAL PROJECTS 2019/18

INSTRUCTIONS FOR STUDENTS

COMPUTER SCIENCE DEPARTMENT
THE FACULTY OF NATURAL SCIENCES
ARIEL UNIVERSITY

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§1. INTRODUCTION

Part of the B.Sc. program is to cope with a year-long effort captured through what we refer to as the *final undergraduate project*. This is to be supervised by a senior staff member in the CS department. Projects can be submitted in groups of 1 – 4 students (the *project team*, hereafter); though solo-projects require a special consent of one's advisor.

The department distinguishes between two types of projects; those that are *research-oriented* and those which are not. Project advisors determine the nature of the projects under their care. Roughly speaking, research-oriented projects entail a final report that requires more effort and accuracy than a non-research oriented one. Generally a research-oriented project fetches an average grade of about 90 while non-research-oriented projects usually average at around 80. The department seeks to encourage students to engage research-oriented projects for those often serve as good starting point for an M.Sc. thesis later on. Consequently, **students enrolled in the department's excellence program are bound to conducting research-oriented projects only** and students who are already aiming at the M.Sc. program are advised to take on a research-oriented project.

Throughout the year you will be expected to give an initial *shallow* presentation of your work in a departmental gathering we like to refer to as *project day* (see § 3 for details). Later on in the year you will provide a detailed presentation of your project and withstand a full examination to which we refer as the *project defence* (see § 4 for details). The defence is an event that runs for 10 – 15 minutes and is to be conducted in the presence of 2 – 3 senior staff members (the *defence team*, hereafter).

In addition to these two presentations/examinations you are to submit three documents referred to as the *milestone documents of the project* consisting of the *abstract*, the *commitment document*, and the *final report* (see § 5 for details).

The final grade of a project is comprised of two ingredients:

1. Advisor overall evaluation grade (50%).
2. Defence team evaluation grade (50%).

Only the final grade will be disclosed to a student.

Project grades are set for *individuals*. Indeed, grades may differ amongst the same project team members and the differences are to be enacted according to the discretion of the advisor and/or the defence team who examined the project. Each student is expected to exhibit proficiency in all project details throughout the entire duration of the project and in particular during the defence.

§2. CHOOSING A PROJECT ADVISOR

Only faculty members listed [here](#) can serve as project advisors. If you wish to conduct a project with advisors who are external to department (or the university for that matter) one of the faculty members listed [here](#) must act as the head advisor of your project.

You are expected to set your advisor by

16:00, the 17th of November, 2018.

In order to set an advisor formally you are to act as follows

- Send an email by the above mentioned deadline to:

- Mrs. Evelin Fomenko at: evelinfo@ariel.ac.il and to
 - Dr. Elad Aigner-Horev at: horev@ariel.ac.il and
 - CC your advisor as well (and secondary advisors if you have any external advisors)
 - CC all members of the project's team
- In your email you are to list all members of the project by name and ID number.
 - In your email you are to write us which faculty member agreed to advise you.

You must get confirmation either from Mrs. Fomenko or Dr. Aigner-Horev that we have processed your email. Without such a confirmation your email is not processed. Emails not of the form above will not be processed and penalties may apply.

There is a possibility that on the second or third week of the semester we will arrange for a meeting between the students and some interested faculty members who would like to explain about their projects in a frontal manner and to a large audience. Do not delay your search for an advisor waiting for this meeting as it is not clear it will come to be. The above deadline must be respected regardless of anything.

§3. PROJECT DAY

With the exception of approximately 10 excellent pre-selected projects every other project team is to prepare a *poster presentation* (see § 3.1) of the team's work to be given during project day. The pre-selected projects will deliver frontal slide presentations of their work and thus do not have to prepare posters for project day.

PROJECT DAY DETAILS

11th of June, 2019

Room 53.4.55.

10:00-17:00.

The structure of project day is essentially the following.

1. The day starts with the approximately 10 pre-selected projects each giving a 10-15 minutes slide presentation of their work.
2. Following these frontal presentations, senior staff members (and students) will circulate between the various posters (hung on the walls) in order to gain appreciation for the work various project teams have performed up to that point in time. Each team is to position at least one representative by the poster to explain and answer questions regarding the project.
 - Senior staff members will collect their impressions of the projects they encounter and will forward their evaluations of these to the appropriate defence teams for further consideration during the final grading process.
 - Evaluations of your posters or frontal presentations during project day will not be disclosed to you.

§ 3.1 POSTERS.

- Posters must be in English.
- If you wish the department to handle the printing of your poster please upload a PDF version of your poster to [this shared Google drive folder](#) by

16:00, the 10th of May, 2019.

- Teams that miss the deadline for uploading the posters are to handle the printing of their posters on their own.
 - Any posters submitted on time but rejected by the printing company due to format mismatch, their associated teams will bear the responsibility of printing these posters on their own.
- Poster dimensions are 1.00m × 0.70m.
 - Posters must include:
 - Your names.
 - DO NOT PUT YOUR ID NUMBERS ON THE POSTER!
 - Advisor's name
 - Title of the project
 - Examples and templates for posters can be seen [here](#).
 - Any further instructions on this matter are to be provided to you by your advisor.

§ 3.2 ATTENDANCE IN PROJECT DAY. Attendance in project day is **mandatory** for all students who wish to have their projects evaluated and examined this year. Attendance is taken individually. A team cannot send a representative to project day. Closer to the date of project day we will issue out instruction how attendance will be taken on that day.

§4. DEFENDING YOUR PROJECT

You are to arrive to your project defence carrying

- a slide presentation regarding your work and also be ready to diverge from those and give a board talk on it if asked to or if more fitting.
 - Your judgement as to what form of presentation (slides or board) to use to best present your work is part of the examination.
- You are to bring 1 hard-copy of your final report to be handed to the defence team members.

The defence team will then instruct you on how to proceed. Traditionally you will start with a short presentation of your work. This may be cut short by the questions of the defence team or it will be allowed to run its course. The defence team will make an effort to examine each team member individually by distributing the questions as they see fit amongst the project team members.

§ 4.1 SCHEDULING THE DEFENCE SESSIONS. We assign the various projects to defence slots. We expect that a schedule will be made known to you somewhere in the second half of December 2018. There is no registration or any active duty on your part in that respect. The date we assign you is binding. Please bear in mind that there is no "Moed B" for defences. The identities of the defence team will not be disclosed.

§ 4.2 EVALUATION CRITERIA. As the spectrum of topics in which projects are conducted in is quite large it is not prudent to come up with a fixed set of evaluation criteria for all. Indeed, the evaluation of a project delivering a computer program, say, is completely different from the evaluation of a project that surveys a body of mathematical results. Suffice to say that, your defence team is well-aware of this issue and will be quite sensitive to the differences in disciplines as they examine different projects. Your advisor will instruct you best in terms of how to prepare for your defence.

As a rule of thumb though, it is safe to say that the defence team with respect to the project's discipline will be looking to measure the complexity, novelty, usability and so on of the project. The defence team will take into account in its grading all that you submitted throughout the year (see § 5) and any project day comments taken by senior staff members.

§5. THREE MILESTONES

You are to submit three documents throughout the life-span of your project.

§ 5.1 THE ABSTRACT. The first document you will be submitting is a short one-pager in which you explain what you intend to be doing throughout the project. We shall refer to this document as the *abstract*. Please adhere to the following guidelines when submitting your abstract.

- Abstracts must be in English.
- Do not exceed one page
- Document must be formatted using L^AT_EX
- Upload a PDF version of your abstract and the L^AT_EX source file used to generate it to the following [shared Google folder](#) by

16:00 the 16th of December, 2018.

- Both the pdf and L^AT_EX file must be submitted for the abstract submission to count.
- Make sure that a compilation of your L^AT_EX file generates the pdf and do not have any external dependencies otherwise if the file does not compile the submission will be rejected.
- The pdf file has to have the name "ABS_ID.pdf" where ID is the ID number of one of the project team members.
- The L^AT_EX file has to have the name "ABS_ID.tex" where ID is the the same ID number you used for the pdf file.

The abstract document will be handed later on to the defence team examining you at the end of the year and will play a rôle in your grading according to the discretion of the defence team examining you.

Instructions on how to write an abstract depend on the discipline you have chosen to pursue and thus you are to discuss this with your advisor. Naturally though your abstract is to include:

- Title of the project.
- Names of all team members.
- ID numbers of all team members.
- Advisor name.

§ 5.2 THE COMMITMENT DOCUMENT. Roughly in the middle of the year you will submit a document which consists of two ingredients:

- an account of what you have done thus far; and
- an account of what you are **committing** to complete or do by the submission of the final report.

The commitment document is then passed to your defence team. The rôle of the commitment document is to allow the defence team to evaluate your progress and judge whether you met your commitments or not and for what reasons and then incorporate all these factors into your defence grade.

Committing at the middle of the year towards some goal and failing to attain it at the end does not automatically induce harsh consequences or any consequences at all. For instance, in a mathematically oriented project one can surely never "commit" to prove any statement until one has the whole proof for one can encounter an unexpected counter example. It is the defence team's task to evaluate the reason for not meeting a "commitment". It is the project's team task to explain to the defence team why a goal was declared yet not attained. Perhaps the approach was wrong; perhaps a counter example was found, and so on. The defence team evaluates the sincerity of the attempts of the project members to attain a goal they have "committed" themselves to.

More so than anything else the commitment document is there to give you structure in terms of what you wish to achieve and to a certain extent bind you to what you "promised" you will try to deliver.

When submitting the commitment document please adhere to the following guidelines.

- Commitment page must be in English.
- Two pages only.
- Must be formatted using L^AT_EX
- First page: a bullet list of what you have done so far.
- Second page: a bullet list of what you intend to achieve by date of the submission of the final report of your project.

- Please upload a pdf version and the \LaTeX source file used to generate it to the following [shared Google drive folder](#) by

16:00 on the 10th of June, 2019.

- Both the pdf and \LaTeX file must be submitted for the commitment document submission to count.
- Make sure that a compilation of your \LaTeX file generates the pdf and do not have any external dependencies otherwise if the file does not compile the submission will be rejected.
- The pdf file has to have the name "COMMIT_ID.pdf" where ID is the ID number you used for the abstract documents.
- The \LaTeX file has to have the name "COMMIT_ID.tex" where ID is the ID number you used for the abstract documents.

§ 5.3 THE FINAL REPORT. For your final document you are to prepare is a complete account of your entire project. This is the document you will be providing a hard-copy of to the defence team during your defence. The structure and nature of this report is highly dependent on the discipline you chose to pursue in your project and whether your project is more theoretically leaning or more applicative. Consequently, we shall not attempt to give any special or general guidelines for this part of the project. Your advisor will instruct you on how to conduct yourself in this venue. As a rule of thumb though the defence team will expect that the final report will adhere to the customs and culture of the project's associated discipline.

- The final report must be in English.
- The report must be formatted using \LaTeX
- Please upload your a pdf version of your final report as well as the \LaTeX file used to produce this pdf to the following [shared Google folder](#) by

16:00 the 30th of September, 2019.

- Both the pdf and \LaTeX file must be submitted for the final document submission to count.
- Make sure that a compilation of your \LaTeX file generates the pdf and do not have any external dependencies otherwise if the file does not compile the submission will be rejected.
- The pdf file has to have the name "FINAL_ID.pdf" where ID is the ID number you used for the abstract documents.
- The \LaTeX file has to have the name "FINAL_ID.tex" where ID is the ID number you used for the abstract documents.

§6. IMPORTANT DATES

Here is a summary of important dates and links.

	DEADLINE	SUBMISSION LINK
SET ADVISOR	16:00, 17/11/2018	N/A
ABSTRACT	16:00, 16/12/2018	Abstract upload link
POSTER	16:00, 10/05/2019	Poster upload link
COMMITMENT DOC.	16:00, 10/06/2019	Commitment upload link
PROJECT DAY	10:00, 11/06/2019	N/A
FINAL REPORT	16:00, 30/09/2019	Final report upload link
DEFENCE	individually set	N/A

§ 6.1 DISCIPLINE AND PENALTIES. The dates listed above are final and will not be extended.

No reminders of approaching deadlines will be sent out.

The following policy of retracting points for *individual and whole teams grades* will be enacted.

	PENALTY
NOT SETTING AN ADVISOR ON TIME	10pts
MISSING ABSTRACT SUBMISSION DEADLINE	10pts
MISSING POSTER UPLOAD DEADLINE	print your own poster
NOT SUBMITTING A POSTER AT ALL	15pts
NOT ATTENDING PROJECT DAY	20pts
MISSING COMMITMENT DOC. SUBMISSION DEADLINE	10pts
MISSING FINAL REPORT SUBMISSION DEADLINE	10pts

- Milestone documents submitted not in their respective format defined in § 5 will be rejected and penalties will apply as we examine the submissions only after the deadline had passed.
- Submissions that were made in time but were rejected will have the above penalties apply to them.
- A student who fails to attend his or hers defence fails the project.
- A whole project's team fails the project if 10 days prior to the commence of all defence sessions the team is still missing any of the milestone papers described in § 5.
 - Such a team will receive a notification that it has been removed from the defence schedule.