AL AKHAWAYN UNIVERSITY IN IFRANE

AL AKHAWAYN
U N I V E R S I T Y
School of Science & Engineering

INTERNSHIP AND
COMBINED INTERNSHIP-CAPSTONE
HANDBOOK

Last revision: Sep 15, 2024

INTERNSHIP AND COMBINED INTERNHIP-CAPSTONE HANDBOOK

Last revision: Sep 15, 2024

Internship coordinator: Dr. Amine AMAR
a.amar@aui.ma

TABLE OF CONTENTS

1. Internship Policies (EGR 4300)

1.1 Introduction

This document builds on top of earlier such documents which were guides for AUI SSE students to accomplish their internship successfully. Internship is a significant milestone in the life of an engineering undergraduate student, and this handbook serves to define expectations, requirements, and the operational details of this milestone such as responsibilities of the students and the supervisors and assessment process.

The course code for internship is EGR 4300. Typically, the internship is performed during the summer before the final year of studies and the student registers for it in the subsequent Fall semester and delivers the report and presentation during that semester.

1.2 Course prerequisites

Prerequisites of Internship (INT) and combined Internship-Capstone (INT-CAP) are as follows:

- Completion of at least 90 credit hours prior to the beginning of the internship.
- Completion of the technical writing course (ENG 2303).
- Completion of all required French classes.
- Pre-approval of the internship contract by the internship coordinator.

Any INT or INT-CAP performed without fulfilling the abovementioned prerequisites, prior to the start of the

internship, can be <u>nullified</u> at the discretion of the internship coordinator.

1.3 Course description (University Catalog)

The current AUI course catalog description for EGR 4300 reads as follows:

EGR 4300 (*3 SCH, 3 lecture hours; Prerequisites: ENG 2303, FRN 3310, or equivalent*)

On-the-job education and training in a public or private sector agency or business related to the student's major. Students must consult with the internship director to arrange for a three-party contract to be drawn up that details the amount and nature of the work to be done. The contract (*Contrat de Stage)* must be signed by the student, the internship director, and the agency or businessperson supervising the work before work begins. Completion of the UCC Arabic/French language requirement is strongly recommended before this experience. May be combined with EGR 4402 for 7 SCH with approval.

The above description mentions that internship and capstone can be combined. This is detailed below.

Two options:
1. INT, for a minimum of 2 months, usually performed in the summer before last year of studies. However, it can be performed at other times (including outside summer time) that suit the degree plan of the student, as long as

the prerequisites have been done before, and other regulations of the internship are followed.

2. INT-CAP, by spending more time in a company, for a minimum of 4 months. This should take place in the last semester of study and requires finding a project that satisfies Capstone requirements.

Important Notes:

- INT and INT-CAP take place at a host company. Companies operating on the University campus are <u>not</u> eligible.
- INT and INT-CAP require physical presence **at the company** 5 days a week, 8 hours/day. The student must add additional days to make up for any public or religious holidays falling in the minimum 2-month period for INT, and 4-month period for INT-CAP.
- In the event the student decides to stop his/her internship in his/her host company, he/she must seek the approval from his/her SSE supervisor <u>and</u> the internship coordinator before doing so. Failure to get the two approvals or to provide a sound justification will result in a <u>major penalty</u> on the internship grade of the subsequent internship.
- Since the internship is a full-time activity, no courses, seminars, workshops, trainings, and separate job can be taken in the semester the internship is carried out, including online courses.

- At the time of course pre-registration, students should pre-register the INT course (or both INT and CAP courses in the case of INT-CAP) <u>in the semester of their defense</u>.

- Students need to defend their work in the same semester they registered their INT or INT-CAP, or in the add-drop of the semester following the semester of registration.

- Students may register in INT as a 6th or 7th course during Fall and Spring semesters, or as a 3rd course during the summer session, if that internship was carried out the previous semester.

- A student who registers only to defend INT or INT-CAP and pays all university fees, can get a pro-rated refund of common fees upon request, based on the defense pass date (assuming the INT or INT-CAP is the last course left in the student's completion of degree requirements).

- The defense will be scheduled once the student has completed a period of 2 months for INT or 4 months for INT-CAP.

- Students need to keep in mind the rules regarding *Planned Educational Leave* and *Incomplete Work*. If a student registers for INT-CAP or INT in a given semester and plans to defend during the add-drop of the subsequent semester, then he/she needs to fill in the *Incomplete Work* form at the end of the semester in which he/she registered. If the student will be doing his/her internship while not being registered at AUI for INT or INT-CAP, then it is his/her responsibility to fill out the *Planned Educational Leave* for the duration he/she will not be registered and will be away at

internship. It is the student's responsibility to check on the current-most rules for *Planned Educational Leave* with the Enrollment.

- Since communication in the workplace is typically in French in Morocco, completion of the General Education French language requirements is required. This requirement may be waived for students who can provide a TEF certificate with level C1 or above (**Table 1**), and for those who will be doing their INT / INT-CAP in a <u>fully</u> English-speaking environment, either in Morocco in a **<u>multinational</u>** company or abroad. Requests for a temporary waiver of the French course must be submitted to the School's student operations coordinator along with supporting documents for pre-approval.

- Students who hold a high school diploma from the US, UK or ASI are <u>not exempted</u> from the French language prerequisite which applies to internships. These students must either provide evidence of their proficiency in French (TEF certificate with level C1 or above, or complete FRN3310) or perform their internship in a <u>fully</u> English-speaking environment, either in Morocco in a **<u>multinational</u>** company or abroad.

- The work performed by a student during an internship must be personal work. It cannot be combined with the work of any other student. Any similarity in the internship deliverables submitted by two students, enrolled in EGR4300 the same semester or in different semesters, is strictly prohibited.

- The INT and INT-CAP defense is followed by the exit test.

Table 1: Pre-requisites of the internship course (EGR4300) based on the French test level of the student.

Level	Test	French courses[a]			
		FRN 1305	FRN 1308	FRN 2310	FRN 3310
C2	TEF, TCF				
C1	TEF, TCF				
B2	• TEF ≥ 650 or TCF ≥450 and GAT ≥ 16 • DELF ≥ 80%				✓
	• TEF < 650 or TCF <450 • DELF < 80%			✓	✓
B1	TEF, TCF, DELF		✓	✓	✓
A2	TEF, TCF, DELF	✓	✓	✓	✓

(a) FRN 1305: Consolidating French
  FRN 1308: French for Academic Purposes I
  FRN 2310: French for Academic Purposes II
  FRN 3310: Advanced French Writing and Speaking Skills

1.4 Intended Learning Outcomes

By the end of the internship, the student will be able to:

- Demonstrate a working knowledge of basic concepts as they apply to a specific project in the host company.
- Identify a particular problem in the company and perform relevant research that leads to the proposal of optimal

solutions. Identification of the problem will be done by the student, or in some cases by the company itself prior to the internship.

- Exhibit the ability to effectively work, adapt, and communicate both orally and in writing, in a professional environment. This ability will be assessed through observation and evaluation of the intern's work by the company supervisor at the workplace.
- Report in writing on work performed and present it orally in a public defense.

Parallel objectives include:
- Demonstrate self-confidence and the ability to pursue career objectives in the working world.
- Achieve employer satisfaction to a level that could lead to an internship extension and/or a job offer.

1.5 Supervision

Two supervisors are required: an SSE faculty member with an expertise in the discipline of the internship if possible and a supervisor from the host company. After discussion with the company supervisor, the student will report the internship tasks, objectives and deliverables in the internship contract (see Appendix).

1.6 Contract

A <u>stamped</u> contract, including a description in English of the

---

internship, its objectives and deliverables, must be signed by the student, the supervisors, and submitted to the Internship coordinator for final approval, following the deadlines specified at the top of the contract and **Table 4**.

Description of the internship and deliverables may be written in another language than English providing a translation is provided in a separate sheet. Presence in the contract of the company <u>stamp</u> and the company supervisor's <u>signature</u> are <u>mandatory</u>.

1.7 Evaluation

Internship intended learning outcomes will be assessed through:

1. The company supervisor evaluation
2. Regular progress reporting to the SSE supervisor
3. A mid-internship report
4. A final report
5. A public oral presentation followed by discussion with a jury composed of the School supervisor, a second reader from the School, and, if possible, the company supervisor.

The final grade of the INT and INT-CAP will be computed according to the distributions shown in **Table 2** and **Table 3** respectively.

Table 2: Assessments and grade contributions to the INT grade

The table is available at:
https://alakhawayn365.sharepoint.com/sites/MySSE/SitePages/Internships.aspx

Table 3: Assessments and grade contributions to the INT-CAP grade

The table is available at:
https://alakhawayn365.sharepoint.com/sites/MySSE/SitePage
s/Internships.aspx

Final report requirements are specified in the Internship report template (see Appendix). Students are urged to get familiarized with its content <u>from the start of the internship</u>. It is strongly suggested that the mid-internship report follows the same style, filling in the parts for which information is available at the time it is due.

1.8 Penalty

A penalty of up to 10% of the final grade may be applied for not respecting any of the internship regulations, as follows:

- Not respecting the fixed deadlines to submit contracts.
- Students omitting to inform the company and the School of any unforeseen absence will be assigned a -10%, or a -5% if only one of them is not informed promptly. Should this happen a second time, an automatic F will be assigned, unless justified.
- The School internship coordinator will be carrying out surprise visits in randomly selected companies where SSE students are doing their internship. The goal of the visit will be to check on the student's wellbeing, that the project is running smoothly and to get the

company's feedback. In the event that negative feedback is reported because of unsatisfactory performance from the student, a penalty of -10% will be applied. In case of egregiously negative feedback, the student's internship might be terminated.

- One week prior to their defense, students must submit soft copies of their final report and their exit test portfolio and ensure the company supervisor's evaluation form is sent by email to the internship coordinator. Students must also their PPT presentation to the internship coordinator at least 24 hours days before their defense.

1.9 Finding an internship

It is the student's responsibility to find his/her own internship. However, when opportunities are available through the School, a public announcement will be made and they will be assigned to students on a competitive basis. The School will help by contacting companies and identify internship opportunities that meet School requirements.

Students may choose to carry out the INT or INT-CAP in a company outside of Morocco. Exceptionally, and on a case-by-case basis, students with a minimum GPA of 3.7 may be authorized to carry out the internship in a public or private research laboratory instead of a company.

Any other deviation from the above-mentioned requirements must be approved by the Internship Coordinator before

<u>signing the contract.</u>

2. Internship procedure

Steps to follow:

1. Identify a host company for the internship as early as possible.
2. Discuss with your company supervisor your contribution to the organization, your expectations from the internship, how the organization can meet your goals, and where you will fit into the organization. Work out as specifically as you can: (1) the kind of work you will be doing, (2) your duties and responsibilities, and (3) the deliverables of your project.
3. Invite a faculty member from the School of Science and Engineering, with some expertise in the field of the internship if possible, to become your SSE supervisor. Discuss your project with him/her.
    If approved by your SSE supervisor, you may also have a co-supervisor from another School providing he/she has significant expertise in the internship subject. In this case, the weight in the assessment by the 2 co-supervisors will be equal.
4. Sign the Internship contract (see Appendix). Obtain the signatures of your supervisors and the Internship coordinator. Keep a scanned copy of the signed contract for your record.

The contract should be approved and finalized prior to the

start of the internship. Contracts must be submitted for approval in the semester or session prior to starting INT or INT-CAP. **Table 4** below shows deadlines for submission of the contract; if the deadline is not met, penalties will apply as described above. **<u>Any work done before the contract approval will not be counted towards the internship.</u>**

Table 4: Deadlines for submitting the INT or INT-CAP contract

	Period over which the internship is done		
	Spring semester	Summer session	Fall semester
Internship contract due	First day of class of the Spring semester	First day of class of the Summer session	First day of class of the Fall semester

3. Combined Internship-Capstone requirements

The combined INT-CAP option must be taken in the last regular semester (Fall or Spring) and has a <u>minimum</u> duration of **4** consecutive months.

The combined INT-CAP is subject to the following rules:
- Students planning to undertake a combined INT-CAP should adhere **exclusively** to procedures and rules

expounded in the present internship handbook. Rules, procedures and deliverables described in the syllabus of the Capstone Design course (EGR4402) **should be ignored** by these students since they are meant for capstone-only students.

- Procedures and regulations for a combined INT-CAP **pertain exclusively** to the **internship** course, and are **managed exclusively** by the **internship** coordinator who is the sole interlocutor at AUI for any capstone-internship matter along with the SSE internship supervisor.

- An INT-CAP differs from a regular INT in 5 points:
  1) a minimum duration of four months instead of two
  2) the existence of a design component in the project. This important component should be discussed and approved by the SSE supervisor before or during the internship
  3) an assessment of the student's work on the appropriate use of software tools for final deliverables
  4) a STEEPLE analysis **and discussion about potential Engineering Standards related to the project**
  5) the requirements' satisfaction.

- INT-CAP and INT Interim and Final Reports must conform to the same format. Report requirements are specified in the Internship report template (see Appendix). The student should be familiar with the contents of this document <u>from the start of the</u>

internship.

- In the defense and reports of the INT-CAP, work should be reported and presented as a single unified project. In an INT-CAP, no distinction should be made between INT and CAP; they form one same project.

4. Oral presentation and Exit Test

4.1 Structure

The internship defense is followed by an "Exit Test" in a single oral public presentation, the structure of which is given in **Table 5**.

Table 5: Structure of the oral presentation

Step	Duration	
	for INT	for INT-CAP
Step 1: Internship presentation	15 min	20 min
Step 2: Internship discussion with the jury	5 min	10 min
Step 3: Exit test presentation	10 min	10 min
Step 4: Exit test discussion with the jury	5 min	5 min
TOTAL:	**35 min**	**45 min**

4.2 Internship presentation

The internship oral presentation should be made in Microsoft

PowerPoint and should generally follow the suggested format below:

1. **Title** (1 slide): This slide should include the semester, date, your name, names of supervisors, and the name and logo of the host organization.

2. **Introduction** (1 to 2 slides): Define the mission statement or background of the host organization; describe its role and goals.

3. **Objectives of the Internship**.

4. **Results**.

5. **Lessons learned** (1 to 2 slides)

5. **Conclusion** (1 to 2 slides)

Tips for your presentation:
- Do not read off your PowerPoint slides!
- Remember to smile and make eye contact with your audience or webcam.
- Avoid memorizing a speech and use simple and clear language.
- Rehearse out loud and seek feedback prior to the presentation.

4.3 Exit Test

The Exit Test is a mandatory and timely requirement which undergraduate SSE students, including the ones in the BSMS

program, are required to take when they complete at least 90 SCH.

The Exit Test has two major objectives:

1) check and ensure the quality of graduating students (communication skills, French level, knowledge in the areas of their major, readiness for job market, etc.).
2) obtain students' feedback for program improvement

4.4 Exit Test portfolio

All Exit Test candidates must prepare and submit, along with their internship final report, a portfolio that includes:

1. A detailed degree plan for the remaining courses.[a]
2. CV in French.[a][b]
3. CV in English.[a][b]
4. Motivation letter in French.[a][c]
5. Motivation letter in English.[a][c]
6. Abstracts of three projects presented in different major area courses.[d]

(a) Must be validated and signed by your SSE internship supervisor. If there are no remaining courses, simply add a page with the statement "Degree plan: All courses completed.".

(b) Beware of CV templates available online. Not every template is suitable for your type of application.

(c) It should be clear, error-free and written specifically for a job application in a real company or a Master's degree application in a real university. Application for an internship is not suitable.

(d)   Each abstract must mention the project title, course name, course code, course instructor and the semester the project was done.

4.5 Exit test presentation

As shown in **Table 5**, a 10-minute oral presentation will be given by the student, immediately after the internship presentation. It should be entitled "Exit Test" so as to distinguish it clearly from the internship work. It should be composed of the following three slides:

- slide 1: discussion in French of the overall learning experience in the Bachelor journey
- slide 2: discussion in English about technical knowledge and skills learned at AUI
- slide 3: presentation in English of career plans after graduation

Jury members may ask questions about Exit Test material shown on the slides and/or the Exit Test portfolio.

4.6 Exit test result

Concerning the outcome of the Exit Test, the following should be noted:

- The Exit Test is evaluated on a pass-fail basis
- When a student passes the internship, he/she may: 1) also pass the Exit Test, 2) pass the Exit Test with remedial work to be submitted within 2 weeks, 3) fail the Exit Test and be asked to take it again.

Remedial work is the responsibility of the student. He/she is required to consult with his/her SSE internship supervisor, and coordinate with him/her the type of tasks needed to satisfy the remedial work requirement. Once completed, a separate *remedial work clearance form* needs to be filled by the student, signed by the internship supervisor and submitted to the Dean's assistant office.

5. Honors INT and Honors INT-CAP requirements

Students performing an Honors INT or an Honors INT-CAP should consult the Honors Program Handbook concerning specific additional Honors requirements (see Appendix).

6. Important Information for Supervisors of Internships

The SSE supervisor plays an important role in the successful accomplishment of the internship by the student. Here are the main duties of the SSE supervisor, in chronological order during the stages of internship application, performance, and report and presentation.

1. Internship contract form: When a student brings you their contract form, make sure that there are adequate details of the duties and tasks to be performed and that the project/task/duties are appropriate for the student's major (see section 1.4 above). Sometimes, the company writes very brief

details of the duties, such as "mobile development", or "logistics planning" – in these cases, it is advisable for the SSE supervisor to ask the student to ask the company to be more detailed in spelling out the duties. This is sometimes very crucial, as it prevents the unfortunate situation where the student is given trivial tasks or just tasks of observation, and this is more likely to happen when the company has not committed to a particular set of duties/tasks for the intern.

2. During the internship: Before the student leaves for the internship, give them advice that they should feel free to consult you if anything goes out of the ordinary at the internship. And once they start the internship, email them to let them know that they should email you (in your capacity as SSE supervisor) a very brief description every week of what they have done that week; e.g. every Friday evening. If couple or more weeks go by without them having emailed you any updates, please remind them that this will impact their final grade of the internship. Indeed, regularity of contact with the SSE supervisor and punctuality in meeting deadlines for AUI reporting account together for 10% of the total INT grade (**Table 2**); regular periodic progress reporting accounts for 5% of the INT-CAP grade (**Table 3**). Also, students are expected to email the SSE supervisor a concise mid-internship report.

3. After the internship: Once they have finished the internship and they are back on campus for the next semester, ask them to meet you to show you their final report draft. Go over the draft and give them feedback on what they need to improve.

Keep in mind that this is the first report of this length an SSE student is writing while being a student at AUI. Close attention paid to this report will pay off in better quality in subsequent reports (esp. the capstone) hopefully. Before the presentation, ask them to show you their presentation so that you can give feedback on improvements. One of the most common mistakes is to have a very long presentation (over 25 or 30 slides) because they feel obligated to present everything they did at the company. In this case, help them identify the most important projects and the most important details to present in the allowed time (**Table 4**).

7. Handbook version and valid forms

Students registering for internship in FALL 2024 and beyond must adhere to this handbook and forms. <u>Prior versions of these documents are not applicable and will not be accepted</u>.

8. Remote internships

In the exceptional time of the global pandemic, SSE students are still required to perform the INT or INT-CAP to fulfill their degree requirements. If imposed by the company, they may carry out their INT or INT-CAP remotely.

Students should meet the following conditions to be eligible for a remote internship in a host company:

- Students must do their internship face-to-face if they have that possibility
- the student's degree plan indicates the internship is done in the last semester before graduation. Students having the possibility to do the internship later, must do so in order to do it physically at the host company.
- an agreement with the host company that the student can work from home.
- a clear internship work plan is assigned to the student by the host company supervisor from the outset. This plan may be adjusted over time as progress is made.
- continuous interaction with the company supervisor throughout the period of work from home using online communication tools (email, synch online meetings, cloud project management tools etc.).
- delivery of the assigned tasks in the deadlines set by the company supervisor.
- weekly reporting (diary) sent to the two supervisor**s** simultaneously. This diary is to be sent by email every Friday evening.

A remote internship is regulated as follows:
- weekly diaries will be assessed by the SSE supervisor as part of the progress reporting assessment.
- deliverables of the internship will be the usual ones, i.e. a mid-internship report, a final report and a final public oral presentation.

- the assessment and grade contributions for a remote internship are the same as the ones reported in **Tables 2-3**.

- in case communication is discontinued with the company supervisor, the student needs to take immediate action and report it within 48 hours by email to his/her academic supervisor and the School internship coordinator.

9. Deliverables and deadlines

Defenses will be held face-to-face. Once the defense is officially scheduled, you will receive an Outlook calendar notification and a few automatic reminders.

No later than 48 hours after the last day of internship, the confidential assessment form of your company supervisor should have been sent by your company supervisor to n.sabir@aui.ma and b.saad@aui.ma from his/her company's email account. Either in French or English. Emails sent from a Gmail or Yahoo account are not accepted.

Two weeks before the defense, submit your Exit Test portfolio, the content of which is given in section 4.3., to **your SSE internship supervisor** for approval. Evidence of the supervisor's approval should be either a scanned cover page of the portfolio including a physical signature, or the screenshot of an approval email on the first page of the portfolio.

One week before the defense, you will send the following documents in <u>one same email</u> to your SSE supervisor, the second reader and the internship coordinator:
- your internship report (pdf version).
- your approved Exit Test portfolio, as a <u>single pdf</u> document. Portfolios submitted in a zip file or in multiple pdf/word documents will be automatically rejected.

24 hours before the defense, you will send the updated PPT slides (or the equivalent pdf version) you prepared for your defense to your supervisor, the second reader and the internship coordinator by email, in <u>one same</u> email. Make sure the file is not oversized to be sent by email; if it is, upload it on a cloud storage service like OneDrive, SharePoint, or GoogleDrive before sharing it via a link.

*For defenses scheduled face to face:
<u>10 minutes</u> before the defense starts, have your computer, data show, charger and cables plugged and ready so you can start at the allotted time.
The student is encouraged to invite guests to attend the defense.

*For defenses scheduled on MTeams (If applicable):
10-15 minutes before the defense starts, you will share your screen displaying PPT slides on MTeams, and make sure your microphone and webcam are operational. In case you face difficulties in having your slides properly displayed on MTeams (...because of a slow internet connection for example), your supervisor and second reader may help by

having the copy of the PPT file you sent them displayed from their computer. The structure of the defense is given in **Table 5**.

Since these defenses are public, the student is encouraged to invite people to attend the defense. Upon your invitation sent from MTeams, AUI members (students, faculty, staff) can join as regular Team members, while non-AUI members (e.g. relatives, friends, company supervisor) can join as guests. If you need any technical assistance concerning MTeams, do contact the ITS department ahead of time. Participation of your company supervisor in the defense would be a great plus. It is advisable to invite him/her to be part of the jury.

10. Appendix

The following documents (available at https://alakhawayn365.sharepoint.com/sites/MySSE/SitePages/Internships.aspx) should be used both for INT and INT-CAP:

➢ Internship Contract

➢ Company Supervisor's Evaluation Form (in English):

➢ Internship Report Template

➢ Internship-Capstone Template

➢ SSE Capstone Repository: (https://cdn.aui.ma/sse-capstone-repository/)

➢ SSE students' intranet portal, internship section: https://alakhawayn365.sharepoint.com/sites/MySSE/SitePages/Internships.aspx

School of Science and Engineering