VANIER COLLEGE

Software Development Program

Course Title: Internship
Course Number: 420-960-VA

Section Number: 87411

Semester: Summer 2025

Pre-requisites: All block 1-5 courses.

Ponderation 0-20-3 (Theory-Lab-Homework)

Schedule May 12 to July 11, 2025 (flexibility 7 days)

Office Hours by appointment

| Teacher | Office | Telephone | Email |
|-----------------|--------|----------------------|------------------------------|
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COURSE DESCRIPTION

Internship is an integral part of Computer Science programs, where the student works outside the college premises to get practical work experience by working on real projects for real companies, under the supervision of their personnel.

During Internship, students work in a partner company (or other organization) where they are introduced to real world problems and work on real-world projects. The specific problems are chosen by the partner. Students will have to use the knowledge and competencies acquired during their studies in the program to adapt and to solve real-world problems. Computer Science faculty guide students in obtaining their internships. In addition to faculty supervisors, each student will have an industry supervisor at the partner's workplace. The student will be able to ask questions and consult both types of supervisors. Each student will deliver periodic and semester-end reports. In addition, each student will make an oral presentation relating to their internship experience at the end of the semester.

COURSE-LEVEL OUTCOME

The student will have experience working in computer science technology and adapt to their work environment. Moreover, they learn about and adapt to technologies of the Computer Science field that may not be explored in program courses.

KEY LEARNING OUTCOMES

By the end of this experience, students will be able to

- ☐ Fulfill their role as part of their occupation and workplace in the field of computer science technology,
- Process information on the companies and establishments,
- Adapt to technological changes in their field, and
- Demonstrate critical thinking in the execution of their assigned tasks.

EVALUATION (MARKING SCHEME)

Please, refer to **Internship Schedule** below for submission deadlines, and Appendix 1: Written Report Rubric to understand how reports are evaluated.

| Weight | Criteria | | | |
|--------|---|--|--|--|
| 15% | Internship Preparation Report (Appendix 4) | | | |
| 10% | 3 Periodic Task Logs (Appendix 2). | | | |
| 30% | 3 Periodic Reflection Logs (Appendix 3). | | | |
| 15% | Final Written Report (Appendix 5). | | | |
| 30% | Performance of internship duties based on professionalism, attention to purpose, critical reasoning, host supervisor satisfaction (evaluation by Industry supervisor), independence and/or autonomy, time management, reviews between the faculty supervisors and the industry supervisor, and demonstration of student project(s). | | | |

NOTES:

- The LIA portion of this course is composed of the Internship Preparation Report and the Final Written Report. It is worth 30% of the final grade and evaluates the course competencies acquired through the internship experience, including the preparatory internship-seeking work. To succeed in this internship, the student must also pass the LIA portion of the course.
- Late submission of reports is not accepted unless prior arrangement with the teacher. The penalty for submitting report late is 20% per day (all weekdays are considered).

ATTENDANCE

Each student works at the host organisation, according to the normal daily work schedule of the host organisation. Consistent attendance is mandatory. Students must notify their internship supervisors, both at the host organization and the school if they are ill. There are no holidays other than those given by the host organisation.

Failure

You will fail your internship if:

- 1. You do not go to do your internship.
- 2. We receive serious complaints from the host supervisor regarding your work or behavior.
- 3. You get dismissed.
- 4. You failed to obtain a passing mark for the LIA as specified above.
- 5. You fail to obtain a passing mark for the course grade as above.

INTERNSHIP SCHEDULE

Summer 2025

Internship period at company: from May 12 to July 11, 2025

| Monday, May 12, 2025 | First workday at your internship placement. | |
|----------------------------------|---|--|
| Friday, May 16 | Internship Preparation Report: due. | |
| After 100 hours, May 30 at most | Task log and reflection log #1 due. | |
| After 200 hours, June 20 at most | Task log and reflection log #2 due. | |
| After 300 hours, Jul. 11 at most | Task log and reflection log #3 due. | |
| Friday, July 11, 2025 | Last workday at your internship placement. Note: you don't have to leave your paid internship because this period is over, but you must complete all reports to graduate. | |
| Monday, July 14, 2025 | Final Written Report due. | |

Please post this schedule by your desk.

Internship Activity Logging

Internships are privileged experiences when the student can finally explore a real work environment and live the experiences of the workplace. These experiences can be overwhelming, and it is easy to lose sight of the importance of some experiences that are lived in this context.

A few tools can be used by the student wanting to fully profit from their internship experience: Task logging (Appendix 2) and Reflection logging (Appendix 3). Truthfully, these tools are not only for students going through their internship, but for anyone going through any experience and wanting to gain more insight and growth.

One goal of Task logging is to take notes of what is going on in order not to forget. These notes can be used for many purposes, such as: self-evaluating performance in view of pay raise negotiations, job changes, etc. One purpose of the task log is to be able to take a step back from one's daily activities and examine them globally. With such a point of view, it becomes possible to reflect on one's experiences and gain insight into our ways of acting and being.

One goal of Reflection logging is to force yourself to see your experiences more globally and the best way forward to growth. By looking at your daily activities as a big picture, we can see trends and overarching themes, making it possible to see what generally works well, or not, what generally is fun, or not, etc. Through sufficient practice at the exercise of self-reflection, someone will be able to gain insight in who they are, what they are doing, what they want, and how to move forward, for instance. The goal of this exercise is to find a way forward to growth of the self, of competence, etc.

Internship Reporting Requirements for Vanier College Computer Science Programs

Computer Science program internships at Vanier College have a 300-hour duration, i.e., students work for at least 300 hours while on internship. For example, Computer Science technology students have internships 3 days per week, 7 work hours per day, for 15 weeks. Software Development students have internships over 9 to 12 weeks, with specific dates and durations for each cohort, and over that duration, 300 hours will be spent working at the host company.

An important part of the internship experience is the internship search. for this purpose, an Internship Preparation Report (Appendix 4) is required at the first or second week of the internship.

Then, to ensure proper self-reflection during the internship, each 100-hour period should be reported through a task log and matching reflection log. In other words, over the duration of the internship, there will be 3 task logs and matching reflection logs. Finally, at most 3 days after the end of the internship, a Final written report (Appendix 5) is required.

Appendix 1: Written Report Rubric

All written reports are evaluated according to the following rubric.

| Components/ Weight | Does Not Meet Expectations (1-3 points) | Meets Expectations (4-7 points) | Exceeds Expectations (8- 10 points) |
|---|---|---|---|
| Context 20% | Fails to provide sufficient context for the presented information. | Provides adequate context for the information presented. | Provides thorough context for the information presented. |
| Content - respect of intention and guidelines 50% | Content is not accurate or complete. Content does not address or answer the questions posed or follow the guidelines. | Content is accurate, but not explicit or covered in much depth. The content answers the questions adequately and follows the guidelines. | Content is thorough and accurate. There is no redundancy or unnecessary minutia. Shows ability to summarize important points of a large body of information. The report has an appropriate number of words. |
| Structure | Paragraphs are poorly organized; use of sections is illogical and hinders document navigation. | Paragraphs are usually wellorganized; use of sections is logical and generally allows easy navigation of the document. | All paragraphs are well-organized; use of sections is logical and allows easy navigation through the document. |
| Formatting | The document is formatted poorly and lacks a quality cover page, headings, sub-headings, headers and footers. | The formatting of the document is generally consistent and adequate, and includes a good quality cover page, headings, sub-headings, headers and footers. | The formatting of the document is professional and includes a professional cover page, headings, sub-headings, headers and footers. |
| Mechanics | Sentences are poorly written; there are numerous incorrect word choices and errors in grammar, punctuation and spelling. | Sentences are generally wellwritten; there are a few incorrect word choices and errors in grammar, punctuation and spelling. | Sentences are well-written; there are no incorrect word choices, and the text is free of errors in grammar, punctuation and spelling. |
| Total 100% | | | |

Appendix 2: Task Log

A task log is a list of the things you worked on in a day. You must record, each day

- the tasks you worked on
- the completion status of these tasks: for each task, write if you completed it, if it is ongoing, if you are awaiting feedback, if information is missing and which information
- with whom you worked on these tasks, when and where a brief indication of how you worked on this task example:

Date Description Status

Google SSO for the MockTube Web Application, at June 10, the office with Josh before lunch. Implementation with Complete 2023 the JS library.

Date Description Status

Missing information about June 10, Facebook integration for MockTube video promotion. the request format: must ask 2023 At the office, alone, after lunch. Josh.

Keep your daily task log beside you while you work and complete it at least once at the end of the day. Many companies require employees to log their activities because of research and development requirements, client billing purposes, etc.

Get used to the exercise, because logging your time is a first step to learning how to harness and maximise your time.

Moreover, this documentation exercise will enable you to track your time at work, to justify your use of time, request a higher salary, or provide supporting documentation when billing consultation clients.

Deadline

After each 100 hours (normally 14-15 days) of internship, you must deliver one task log covering this reporting period.

Requirements

Write your task log in tabular (table) format with the following information fields, from left to right: Date, Description, Status. Fill in the details as indicated above. Keep your task logging sheet next to your workstation and make a habit of logging tasks each time you change what you do. At the end of each day, verify that you have recorded the list of the things you worked on and make corrections where needed.

Guidelines References:

- Work logs (hourly): https://www.youtube.com/watch?v=sNEcJo47fno
- https://www.examples.com/business/daily-work-log.html

Appendix 3: Reflection Log

The purpose of a reflection log is to support your career and personal development. In the reflection log, you should write

- 1. What you did,
- 2. how you did it,
- 3. why you did it,
- 4. who with,
- 5. when,
- 6. what worked,
- 7. what did not work,
- 8. what knowledge were you using, 9. what knowledge is missing, and
- 10. what you learned.

Hopefully, those events and this reflection will provide insight and indications of required/desirable future development (the desired outcome).

Example Entry

A sample entry in a reflection log could be as follows:

2023-05-29, at the Office, in an all-day pair programming session with Johnny Appleseed, we implemented Google Single Sign On for our MockTube Web application. We both used our knowledge of JavaScript OOP to integrate the Google JavaScript library into our application. During the session, I learned how to write functions with default parameters. My knowledge of callback structure in JS needs work. Moreover, I will have to get used to pair programming as it will be my responsibility to onboard new hires a year from now.

Your Deliverable

A list of daily entries could be somewhat interesting but would not bring intense insight into the process. Therefore, you must go through your daily entries and synthesise groups of entries related to the same project and find the overarching/recurring themes and items. From this, you should be able to prioritise your future learning/development items. A sample paragraph may be as follows:

2023-05-28 to 2023-06-02, at the Office, I spent most of my time working on the MockTube Web application, supervised by team lead Johnny Appleseed. For this application, I spent most of my time implementing features using front-end JavaScript and tying it in with the backend to implement Google Single Sign On and other authentication options. I learned a lot of native JavaScript and moving forward must increase my knowledge of callback structure in JS.

I faced one major technical challenge when left alone: I could not understand how the JWT would get to be secure if it was called in the front end. I soon learned that the authentication process has front-end and back-end phases that enable security.

I found that the process of pair programming was worth the effort to make sure that team members get to maximise their learning from one-another. Moreover, I will have to get comfortable with this process I will use this to help onboard new hires as early as December.

Deadline

After each 100 hours of internship, you must deliver one reflection log covering this reporting period.

General guidelines

- Don't assume the reader remembers your previous logs. Instead, provide context, such as the name, description, and purpose of the project(s) on which you have been working.
- Write less. Don't go into details about what you did with each class/program/control, etc. Keep your report at a high level.
- But write more. What challenges did you face technically? What were the learning opportunities?
- Explain carefully. Don't expect the reader to know acronyms and project names.
- Write short sentences and brief paragraphs. If you worked on four projects, give a paragraph to each one. In each paragraph, stay on topic. Please be concise but clear.

Hint: Keep a daily task log beside you while you work. Many companies require employees to log their activities because of research and development requirements. Use this log as a reference for your periodic summary of Internship work as well as for your Final Report. But please do not just copy abbreviated notes from your log into a report. Rather you should use the notes to create a clear and grammatically correct summary of the work.

Requirements

Your reflection logs, submitted as pdf files, must contain the following three sections:

Section 1 - COMPACT HEADER

Date Student Name and ID Company Name Faculty Supervisor Name(s) Time period covered (don't forget to update this each time!)

Section 2 - TECHNICAL INFORMATION

- Remind the reader of what project you are working on, and the degree of completion (how far you are from finishing it).
- Then, in one page (maximum 2 pages if necessary) describe the nature, content, and progress of your work during the last reporting period. The tone and style of this section should be neutral and professional.
- Describe what you did, how you did it, why you did it, what worked, what did not work, what knowledge you were using, and **what you learned**.
- **Provide insight of wanted future development**: tell us about what you need to learn to further advance.
- You should write in full sentences and paragraphs, but you may use bulleted lists where appropriate.

Section 3 - PERSONAL INFORMATION

This section is reserved for your opinions, feelings, and concerns. We are very interested in your feedback and how you are getting along. This section is the place to tell us, for example, whether you are comfortable with the Internship workplace, whether you are overwhelmed or bored with the work, if your Industry supervisor is available when needed to answer your questions, and so on.

You are not negatively assessed for information provided in section 3. We are asking you to be honest about your workplace internship. If there are any problems, please report them in one of your Periodic Reports or contact your faculty supervisors.

Do not mix personal comments with technical information. Write this section on a different page, after the TECHNICAL INFORMATION section of your report.

Appendix 4: Internship Preparation Report

After one (1) week in your internship, provide a brief description of the process of obtaining an internship, on the business domains of the different companies for which you interviewed, and on the business environment of the specific company or department you are working for.

The document should be between 1 and 2 pages in length, single space, 11-point font.

Summarize the various interviews you had, commenting on how well you were prepared for the interview. For each of the companies you interviewed, describe the industry (the business domain) commenting on how much information technology is used within that industry. For the company where you are doing your internship summarize the company itself (the business environment), including its competitors, its internal organizational structure, and its IT implementation.

Appendix 5: Final Written Report

Deadline: 3 days after completion of your internship

The Final Report consists of a typewritten report of approximately 5 pages (approximately 1250 words), answering the following:

Summarize the nature of the company and department, your project topic(s), hardware used, software used, important technical issues, and so on. Reflect on how your understanding of the company, your role, and the project changed from the beginning of your internship to now. Give a technical summary of the project(s) you did in your internship. Discuss how you made use of what you had learned in your Computer Science courses (Be specific about which parts of which courses applied to which parts of your internship work). Mention also what important content you needed to learn during internship, which was not covered in your courses. Also discuss how your internship work involved interactions with coworkers, supervisors and clients. Guidelines for Final Report

Your written language should be neutral and professional. At the beginning of the document, write a halfpage abstract that summarizes your report. Note that your Final Report is an individual task. Even if your internship work was done in a team, you must write your own report, with no collaboration or help from anyone else. Use spell-check and grammar-check when proof-reading your report. Use a simple clear typed format for your report. Do not include information which should not be communicated according to any Non-Disclosure Agreement (NDA) that you may have signed. Provide your report to your Industry supervisor before handing it in to ensure no confidential information is included.