

Course Outline

Faculty: Faculty of Science and Technology
Program(s): Computer Engineering Technology
Department: Computer Engineering Technology

COURSE TITLE: Project Planning and Design

COURSE Number: 247-406-VA Course

Section(s): All.

PONDERATION: 2h lecture, 3h lab work, 2h homework

NUMBER OF CREDITS: 2.33

prerequisite(s): None.

semester/year: Winter 2021

TEACHER (Theory): Mohamed Tavakoli

Office: K-306

Tel: 514-744-7500 Ex. 7373

E-mail: MIO

AVAILABILITY: Office Hours: Tue. 8:30AM to 10:00AM.

TEACHER (lab): Mohamed Tavakoli

Office: K-306

Tel: 514-744-7500 Ex. 7373

E-mail: MIO

AVAILABILITY: Office Hours: Tue. 8:30AM to 10:00 AM

Introduction

In this course, students will plan and design a project. They will analyze the client's specifications, search for information and evaluate possible solutions. They will plan and design a full project in a collaborative team to fulfill the client's demand. They will assemble the system using appropriate tools and instruments and test their prototype. They will install software. Students will compose a technical report and technical presentation which effectively communicates the details of a specific project.

Statement of Competency

Competency 037M: To plan a computerized system project.

Competency 037P: To produce a computerized system prototype.

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Student Personal Resources Required

- Essential materials will be provided by the College.
- Project materials are purchased at the student's discretion (to a maximum value of \$200).

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Bibliography

Class Notes & Slides
 To be provided through the online resource.

Course Content and General Topic Overview

- Engineering as a Business Process
- Using Online Resources to Generate Revenue from Small Production Runs
- Overview of The Project Management Life Cycle: Initiation, Planning, Execution, Closure
- Processes vs. Projects vs. Products: Business processes, Products, Projects, Relevance to Small
 - Projects
- Issues with Small Project Management
- Major Challenges with Small Project Management: Recognizing Project Work, Time Planning,
 Will and Determination, Discipline
- Roles and Responsibilities Small vs. Large Projects Project Phase One:
- Phase One: Initiation: Undertaking a feasibility study, identifying scope, identifying deliverables, identifying project stakeholders, developing a business case.
- Phase Two: Planning: creating a project plan, creating workflow documents or process maps, estimating budget and creating a financial plan, gathering resources, anticipating risks.
- Phase Three: Execution Creating tasks and organizing workflows, briefing team members and determining their loading, communication with team members, monitoring work quality, budget management.
- Phase Four: Closure Analyzing project performance, analyzing team performance, documenting project completion, post-implementation interviews, budget accounting, remaining on task despite completion of work.

Course Structure			
THEORY:	2 hours/week:	Class lectures and exercises.	
LABORATORY:	3 hours/week:	Students must be present and actively participating in the laboratory activity. They must demonstrate clearly that all tasks have been independently completed.	
HOMEWORK:	2 hours/week:	Students are expected to actively engage in management of each project that is assigned to them. In addition to doing technical work, students should communicate directly with manufacturers and suppliers,	
ATTENDANCE	Via ZOOM from Vanier College.		

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THEORY:	Consistent attendance is required to fully benefit from the course. In the event of absence, students are responsible for obtaining and assimilating all material covered.		
LABORATORY:	Students are responsible for managing their workload so that projects are completed.		
TESTS:	Absence without just cause will result in a zero grade for the assessment.		
EVALUATION			
The final mark	10% Log Book & English Proficiency		
will be weighted:	25% Reports and presentations		
	20% Laboratory & Written Examinations		
	20% Midterm exam		
	25% Project report		

The following general rules apply:

- A minimum mark of 60% is required to pass the course.
- At least one week's notice will be given for test dates or changes in test dates.
- Tests questions will not be re-graded after 24 hours of returning and any altered material will not be re—graded
- Quizzes may be given without prior notice there are no make-ups for quizzes.
- Students are expected to attend all their schedule classes.
- Absence from any lab class where specific skills are being assessed will result in a failure of that skill.
- Students are expected to conduct themselves in a professional manner at all times. This includes but is not limited to:
 - Arriving to class (theory and laboratory) on time and prepared to do the required work;
 - Conducting themselves in an appropriate manner at all times (including being respectful to the teacher, classmates, and any guests);
 - Using professional language (no cursing and/or swearing and using appropriate vocabulary);
 - Arriving to class/lab with all necessary supplies (logbook, notebook, textbook, manual, paper, writing implements, calculator, etc.);
 - Turning off all personal communication/music/video electronics (removing headphones, earphones, ear buds etc.); and
 - Having all assigned work completed.

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- Remember that developing professional behaviours and habits now is an important aspect of preparation for entering a professional work environment in the future.
 - Students are expected to take their own notes during classes.
 - Cell phones or calculators with memory for equations (for example graphing calculators) will not be allowed when writing tests.
 - Reports must be typed and computer generated according to the guidelines provided by the teacher.
 - When requested, Lab preparations and Lab Results/logbooks are to be handed in during the lab session. Late Lab Preparations/Lab Results may not be accepted, and a zero mark will be recorded.
 - Reports are due two weeks after they are assigned unless the instructor provides a specific due date.
 - Any assignment or project carries the standard late penalty of 15% per day late to a maximum of 45%.
 - In-class assignments will only be accepted in the class in which they are assigned.
 - Students who are consistently late for class (lab and/or theory) may be refused entry.
 - All grades are reported on a numeric scale from 0% to 100%. The following categories briefly describe the relative value of these grades.

range	mean	Description
90 - 100	95	Excellent, mastery of the objectives
80 - 89	85	Very Good mastery of the objectives
65 - 79	72	Good, mastery of objectives
60 - 64	62	Fair mastery of objectives
0 - 59	n/a	Poor mastery of objectives

Academic and other Resources

If at any point in the semester, you are concerned about the course or you realise that you are having academic difficulties; your first resource should be to talk to me, your teacher. Academic difficulties include problems with the understanding of the theory, to the development of the practical skills required by the course. The earlier you look for help, the greater your chances of succeeding in the course. If I don't feel I can provide you with the help you need then I may recommend one of the College resources below.

For other problems or difficulties, you may encounter while at Vanier there are a number of Services available to help you within the college. They are there for you to use. These include:

Student Services (C203): Some areas where they provide services and/or information are:

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- Services for students with disabilities
 Counselling (personal and other problems)
- Student Advocate Financial Aid (including aid and scholarships)
- Health Services (Nurse on staff) Student Employment
- Academic and Behaviour Policies Lockers
- Housing Volunteering
- Student Services is a great resource for questions about college life and any problems you encounter while at Vanier. If they do not have the answer, they can direct you to the right place to find it.
- <u>Tutoring and Academic Success Center TASC (F-300)</u>: Student-orientated centre dedicated to promoting and aiding students' development and success in academics and in society.
- Admissions and placement tests S.T.A.R. Program
- English Exit Exam English conversation and pronunciation clubs
- English Peer Tutoring
 Scholarship information
- Vanier Native Program Diversity support
- TASC is the main college resource for students with learning difficulties and for students with weak English language skills.
- Science, Technology, Engineering and Mathematics STEM (D-301): This Centre aims to promote student success in mathematics and science. The large interactive study space includes a hackerspace for hands-on applied projects such as robotics, and a study hub for collaborative group work. Teacher help, computers, and a large collection of math and science textbooks are equally available. We offer a number of activities, services and resources including:
- Free drop-in peer tutoring
 Drop-in help from teachers
- Free private tutoring
 Teacher-led review sessions
- Computer access Laptop borrowing

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Mediation and Grades Review

There are two committees available to the student for resolution of academic complaints.

- The <u>Grades Review</u> Committee to review complaints concerning the grading of students' work.
- 2. The *Faculty Mediation Committee* to review academic complaints other than those dealing with student grades see *Student Academic Complaints* below.

General College Academic Policies

It is the student's responsibility to be familiar with and adhere to the <u>Vanier College Academic Policies</u>. Your attention is drawn in particular to the following policies. A brief summary of each is included. To see the full policy, Ctrl and left click on the title of the policy.

<u>Code of Conduct Policy</u>: The policy sets forth principles, guidelines and norms of behavior expected from all individuals present at Vanier College, including students, faculty, employees, administrators, members of the Board of Directors, contractors and visitors. The Code of conduct can be found on the College's website, under *Policies* and on the Omnivox Portal.

<u>Institutional Policy on the Evaluation of Student Achievement Policy:</u> This policy explains the general principles followed at Vanier College in the evaluation of student achievement and provides a list of rights and responsibilities of students and teachers. It is the main policy guiding student evaluation.

Student Academic Complaints (Policy number 7210-8): The Vanier College Student Academic Complaints Policy and procedures puts an emphasis on mediation as the primary means to resolve complaints in the academic area. If you have a problem with a teacher and have been unable to resolve it by talking with him or her, you may wish to enlist the help of the Faculty Mediation Committee. The committee member names and contact information are available in Student Services or through the office of the Faculty Dean.

<u>Cheating and Plagiarism (Policy number 7210-31)</u>: Any form of cheating or plagiarism will result in a grade of zero on the test or assignment and a letter from the teacher will be placed in your file. A repeated offence may lead to even more serious consequences. For more information, consult your teacher or the policy.

<u>Student Misconduct in the Classroom (Policy number 7210-19):</u> This policy provides guidelines for handling cases of student misbehaviour in the classroom and other instructional settings. Such cases may include conduct that is abusive to the teacher and/or other students, or disruptive to the teaching/learning process. This policy does not limit the teacher's or the College's right to take immediate action in cases of imminent danger to persons or property.

Student Absences for Religious Holy Days (Policy number 7210-20): Students whose religious obligations require them to be absent from the College on a holy day not formally recognized in the College calendar must inform their teachers, in writing, during the first week of classes, of the particular date(s) and times of the religious holy days on which they must be absent. Absences approved in this manner are considered to be excused absences. Students are responsible for material covered in the classes and labs they miss.

Test during the last 2 weeks of the Semester (Policy number 7210-18): No test, term paper or project (or combination of these) which counts for more than 30% of the final grade should be given or should be due in the last ten teaching days (20% in the case of courses with a compulsory final exam in the final exam period).

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<u>Course Outline Policy (Item 4.6)</u>: Teachers must advise students, the Department/Program Coordinator and the Faculty Dean, in writing, if changes in course content or procedures become absolutely necessary during the term. Discretionary changes to course content and/or procedures shall be agreed upon between the students and teacher, with written notification provided to the Department/Program Coordinator and Faculty Dean.

Addition of one specific responsibility related to the Covid-19 context

Having registered and reviewed their course outlines, students are responsible to abide by the planned activities and course and assessment modalities. Should they have a known situation or condition that calls for accommodations, they should discuss with their teachers during the first week of classes or contact the Dean of Academic Systems – Registrar (Sylvie Tardif) or ACCESS (if registered). For unplanned eventualities including those related to COVID-19, article 14 of IPESA applies. Note that the specifics of a situation are personal and confidential and that students are not required to communicate those to their teacher. Both the Dean of Academic Systems – Registrar and ACCESS will treat student information confidentially.

Teachers will provide, in their course outlines, the platforms used for course communications, and specific instructions on how and when to contact them. In order to manage student expectations, it is recommended that they include an expected response time. 6.1 Roles of Departments and 6.5 Roles of Program committees and GEC No changes.

<u>Use of Webcam</u>: This course requires students to have a working webcam. Classes and assessments may be conducted using MS Teams or Zoom where the teacher can require students to turn on their webcams. Students should contact the course instructor if they require accommodations or have any questions or concerns.

Notice of video recording & sharing (Download and re-use prohibited): This course, including your participation, may be recorded on video and will be available to students in the course for viewing remotely and after each session. The teacher has the exclusive right to record live lectures. Course videos and materials belong to your teacher and the College and are protected by copyright. Do not download, copy, or share any course or student materials or videos without the explicit permission of the teacher. Any contravention of these conditions of use or inappropriate use of Technology may be subject to sanction(s) by the College under the Code of Conduct. For questions about recording and use of videos in which you appear please contact your teacher