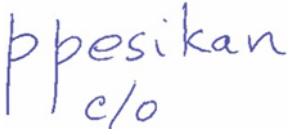# Course Outline

CENTENNIAL COLLEGE

School:	Eng. Tech. & Applied Science
Department:	Information and Communication Engineering Technology (ICET)
Course Title:	IT Project Management
Course Code:	CNET 307
Course Hours/Credits:	42
Prerequisites:	CNET 229, COMM 170, COMM 171, COMP 246
Co-requisites:	N/A
Eligible for Prior Learning, Assessment and Recognition:	Yes
Originated by:	Sam Mikhail
Creation Date:	Fall 2018
Revised by:	Ken Sutton
Revision Date:	Summer 2023
Current Semester:	Fall 2024
Approved by:	_ppesikan c/o_

Predrag Pesikan, Associate Dean/Dean,
Eng. Tech. & Applied Science

Students are expected to review and understand all areas of the course outline.

Retain this course outline for future transfer credit applications. A fee may be charged for additional copies.

This course outline is available in alternative formats upon request.

Acknowledgement of Traditional Lands

Centennial is proud to be a part of a rich history of education in this province and in this city. We acknowledge that we are on the treaty lands and territory of the Mississaugas of the Credit First Nation and pay tribute to their legacy and the legacy of all First Peoples of Canada, as we strengthen ties with the communities we serve and build the future through learning and through our graduates. Today the traditional meeting place of Toronto is still home to many Indigenous People from across Turtle Island and we are grateful to have the opportunity to work in the communities that have grown in the treaty lands of the Mississaugas. We acknowledge that we are all treaty people and accept our responsibility to honor all our relations.

Course Description

Students are taught the concepts and basic functions of Project Management, and the integration of these concepts and functions into a coherent project management system. Also, role of the project manager and the project management team in implementing and controlling projects. Further, the Project Management Body of Knowledge PMBOK® as defined by the Project Management Institute PMI and its application to Project Management. CNET-307 is offered as a technical elective in applicable programs.

External Standard Information (ESI)

N/A

Program Outcomes

Successful completion of this and other courses in the program culminates in the achievement of the Vocational Learning Outcomes (program outcomes) set by the Ministry of Colleges and Universities in the Program Standard. The VLOs express the learning a student must reliably demonstrate before graduation. To ensure a meaningful learning experience and to better understand how this course and program prepare graduates for success, students are encouraged to review the Program Standard by visiting http://www.tcu.gov.on.ca/pepg/audiences/colleges/progstan/. For apprenticeship-based programs, visit https://www.skilledtradesontario.ca/about-trades/trades-information/.

Course Learning Outcomes

The student will reliably demonstrate the ability to:
1. Identify the Project Management Profession, its ethics and environmental and social impact.
2. Apply decision analysis methodologies to justify the need for a project.
3. Conclude a feasibility study for the Project
4. Develop a project plan that defines the project's cost and schedule base lines.
5. Produce short- and long-term project's financial impact analysis
6. Identify and quantify the project's risks and develop a risk management plan.
7. Develop a project procurement plan.
8. Identify stakeholders' communication needs and develop a project communication plan.
9. Develop a project quality management plan.
10. Develop a project change control plan

Essential Employability Skills (EES)

The student will reliably demonstrate the ability to*:

1. Communicate clearly, concisely and correctly in the written, spoken, and visual form that fulfills the purpose and meets the needs of the audience.
2. Respond to written, spoken, or visual messages in a manner that ensures effective communication.
4. Apply a systematic approach to solve problems.
5. Use a variety of thinking skills to anticipate and solve problems.
6. Locate, select, organize, and document information using appropriate technology and information systems.
7. Analyze, evaluate, and apply relevant information from a variety of sources.
8. Show respect for diverse opinions, values belief systems, and contributions of others.
9. Interact with others in groups or teams in ways that contribute to effective working relationships and the achievement of goals.
10. Manage the use of time and other resources to complete projects.
11. Take responsibility for one's own actions, decisions, and consequences.

*There are 11 Essential Employability Skills outcomes as per the Ministry Program Standard. Of these 11 outcomes, the following will be assessed in this course.

New Essential Skills (NES)

N/A

Global Citizenship and Equity (GC&E) Outcomes

The student will reliably demonstrate the ability to*:

1. Identify one's roles and responsibilities as a global citizen in personal and professional life.
2. Identify beliefs, values and behaviours that form individual and community identities and the basis for respectful relationships.
4. Analyze the use of the world's resources to achieve sustainability and equitable distribution at the personal, professional, and global level.

*There are 6 institutional Global Citizenship & Equity outcomes. Of these 6 outcomes, the following will be assessed in this course.

Methods of Instruction

This course is using a self-directed learning model based on weekly topics in combination with small group work on practical assignments and dedicated group discussions.

Text and Other Instructional/Learning Materials

Text Book(s):

Marchewka, Jack T. 2016. Information Technology Project Management. 5th Edition. Wiley.

ISBN: 9781118911013

Online Resource(s):

The course Project Templates will be posted in eCentennial.

Material(s) Required for Completing this Course:

PMI. 2017. A Guide to the Project Management Body of Knowledge (PMBOK® Guide), 6th Edition.

Project Management Institute.

ISBN: 9781628251845

Evaluation Scheme

⇨ Quizzes and Tests: Two Quizzes: 10%+10%.
    Two Tests:15%+15%
⇨ In-class project assignments: Participation and quality of output (25%)
⇨ Project hardcopy and presentation: Hardcopy and presentation (20%+5%=25%)

Evaluation Name	CLO(s)	EES Outcome(s)	NES Outcome(s)	GCE Outcome(s)	Weight/ 100
Quizzes and Tests	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	1, 2, 4, 5, 7, 11		1	50
In-class project assignments	1, 2, 3, 4, 5, 6, 8, 9, 10	1, 2, 4, 5, 6, 7, 8, 9, 10, 11		1, 2, 4	25
Project hardcopy and presentation	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	1, 2, 4, 5, 6, 7, 8, 9, 10, 11		1, 2, 4	25
Total					100%

If students are unable to write a test they should immediately contact their professor or program Associate Dean for advice. In exceptional and well documented circumstances (e.g. unforeseen family problems, serious illness, or death of a close family member), students may be able to write a make-up test.

All submitted work may be reviewed for authenticity and originality utilizing College approved plagiarism prevention software. Students who do not wish to have their work submitted to College approved plagiarism prevention software must, by the end of the second week of class, communicate this in writing to the instructor and make mutually agreeable alternate arrangements.

When writing tests, students must be able to produce official Centennial College photo identification or they may be refused the right to take the test or test results will be void.

Tests or assignments conducted remotely may require the use of online proctoring technology where the student's identification is verified and their activity is monitored and/or recorded, both audibly and visually through remote access to the student's computer and web camera. Students must communicate in writing to the instructor as soon as possible and prior to the test or assignment due date if they require an alternate assessment format to explore mutually agreeable alternatives.

Student Accommodation

The Centre for Accessible Learning and Counselling Services (CALCS) (http://centennialcollege.ca/calcs) provides programs and services which empower students in meeting their wellness goals, accommodation and disability-related needs. Our team of professional psychotherapists, social workers, educators, and staff offer brief, solution-focused psychotherapy, accommodation planning, health and wellness education, group counselling, psycho-educational workshops, adaptive technology, and peer support. Walk in for your first intake session at one of our service locations (Ashtonbee Room L1-04, Morningside Room 190, Progress Room C1-03, The Story Arts Centre Room 285, Downsview Room 105) or contact us at calcs@centennialcollege.ca, 416-289-5000 ext. 3850 to learn more about accessing CALCS services.

Use of Dictionaries

- Any dictionary (hard copy or electronic) may be used in regular class work.
- Only English Language Learner dictionaries are permitted in class work (English words, idioms, and pronunciations are explained).
- English-Additional Language (e.g. English-Chinese) or Additional Language-English (e.g. Russian-English) dictionaries may be used in regular class work.
- Dictionary use is not permitted in test or examination settings.

Program or School Policies

N/A

Course Policies

Late and Missed Assignment Policy:

All assignments will be submitted to the "Assignments" section of D2L in the appropriated Dropbox by 11:59 PM on the scheduled due date. Late assignments will be deducted 5% per day up to a maximum of 25% at five days after which the assignment will not be accepted and given a grade of zero. Weekends count as two days. Students may request accommodation under Centennial College's Student Accommodation Policy if they provide adequate documentation at least 48 hours in advance of the assessment due date. Students that do not submit an assignment and do not contact their professor to discuss alternative arrangements will be assigned a mark of zero.

College Policies

Students should familiarize themselves with all College Policies that cover academic matters and student conduct.

All students and employees have the right to study and work in an environment that is free from discrimination and harassment and promotes respect and equity. Centennial policies ensure all incidents of harassment, discrimination, bullying and violence will be addressed and responded to accordingly.

Academic Honesty

Academic honesty is integral to the learning process and a necessary ingredient of academic integrity. Forms of academic dishonesty include cheating, plagiarism, and impersonation, among others. Breaches of academic honesty may result in a failing grade on the assignment or course, suspension, or expulsion from the college. Students are bound to the College's AC100-11 Academic Honesty and Plagiarism policy.

To learn more, please visit the Libraries information page about Academic Integrity https://libraryguides.centennialcollege.ca/academicintegrity and review Centennial College's Academic Honesty Module: https://myappform.centennialcollege.ca/ecentennial/articulate/Centennial_College_Academic_Integrity_Module_%202/story.html

Use of Lecture/Course Materials

Materials used in Centennial College courses are subject to Intellectual Property and Copyright protection, and as such cannot be used and posted for public dissemination without prior permission from the original creator or copyright holder (e.g., student/professor/the College/or third-party source). This includes class/lecture recordings, course materials, and third-party copyright-protected materials (such as images, book chapters and articles). Copyright protections are automatic once an original work is created, and applies whether or not a copyright statement appears on the material. Students and employees are bound by College policies, including AC100-22 Intellectual Property, and SL100-02 Student Code of Conduct, and any student or employee found to be using or posting course materials or recordings for public dissemination without permission and/or inappropriately is in breach of these policies and may be sanctioned.

For more information on these and other policies, please visit www.centennialcollege.ca/about-centennial/college-overview/college-policies.

Students enrolled in a joint or collaborative program are subject to the partner institution's academic policies.

PLAR Process

This course is eligible for Prior Learning Assessment and Recognition (PLAR). PLAR is a process by which course credit may be granted for past learning acquired through work or other life experiences. The PLAR process involves completing an assessment (portfolio, test, assignment, etc.) that reliably demonstrates achievement of the course learning outcomes. Contact the academic school to obtain information on the PLAR process and the required assessment.

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Topical Outline (subject to change):

ORIGINAL TOPICAL

Week	Topics	Readings/Materials	Weekly Learning Outcome(s)	Instructional Strategies	Evaluation Name and Weight	Evaluation Date
1	The Nature of Information Technology Projects	Marchewka: Chapter 1, PMBOK: Chapters 1, 2	• Explain why information technology (IT) projects are organizational investments. • Demonstrate why projects are planned and why they must align with an organization's business strategy. • Define what a project is and describe the attributes of a project. • Define the discipline called project management. • Describe the relationship among project portfolios, programs, and projects. • Explain why some projects fail and how to improve the likelihood of success	Instructor-led/ online materials Group Work Group Discussion	Students form project teams consisting of 5-7 students per team. (not evaluated for grades)	current week
2	Project Methodologies and Processes	Marchewka: Chapter 2, PMBOK: Chapter 3	• Describe project methodologies and Project Life Cycle (PLC). • Understand the knowledge areas and processes groups of the Project Management Body of Knowledge (PMBOK®). • Explain PRINCE2® and be familiar with its core principles, processes, and themes. • Provide examples of the Systems Development Life Cycle (SDLC). • Describe the Waterfall method for developing the project's product or system. • Explain the Agile approach for developing the project's product or system as well as two commonly used approaches called eXtreme Programming (XP) and Scrum. • Understand the concept of Leaning Cycles and lessons learned.	Instructor-led/ online materials Group Work Group Discussion	Topics discussion in teams	current week
3	Measurable Organizational Value and the Business Case	Marchewka: Chapter 3	• Describe and develop a project's MOV. • Explain the purpose of a business case. • Distinguish between financial and scoring models. • Discuss how projects are selected.	Instructor-led/ online materials Group Work	Final Project Work (in-class version)	current week
4	Project Planning: The Project Infrastructure	Marchewka: Chapter 4, PMBOK: Chapter 4	• Describe the project planning phase and project's infrastructure.	Instructor-led/ online materials	Quiz #1 (online and in-	current week

Week	Topics	Readings/Materials	Weekly Learning Outcome(s)	Instructional Strategies	Evaluation Name and Weight	Evaluation Date
			• Describe project governance and its role. • List and explain the roles of the project manager and how the project team is selected. • Explain how a project acquires both internal and external resources. • Define and describe various organizational structures and project resources alignment. • Describe three general categories for procurement-type contracts. • Develop a project charter and understand its relationship to the project plan.		class versions)	
5	Project Planning: Scope and the Work Breakdown Structure	Marchewka: Chapter 5, PMBOK: Chapter 5	• Describe the relationship among scope, schedule, and budget. • List the processes and tools for defining and managing the scope of a project. • Identify the difference between project scope (i.e. project deliverables) and product scope (i.e. features and functionality of the product or system). • Develop a Work Breakdown Structure (WBS). • Differentiate between a deliverable and a milestone. • Explain project estimation methods.	Instructor-led/ online materials Group Work	Final Project Work (in-class version)	current week
6	Project Planning: The Schedule and Budget	Marchewka: Chapter 6, PMBOK: Chapters 6, 7	• Develop a project schedule • Identify a project's critical path and explain why it must be controlled and managed. • Describe the concept of precedence diagramming and identify finish-to-start, start-to-start, finish-to-finish, and start-to-finish activity relationships. • Develop a project network diagram using a technique called activity on the node (AON). • Describe the concept of critical chain project management (CCPM). • Explain the various types of costs that make up the project's budget.	Instructor-led/ online materials Group Work	Final Project Batch 1 (online version) Final Project Work (in-class version)	current week

Week	Topics	Readings/Materials	Weekly Learning Outcome(s)	Instructional Strategies	Evaluation Name and Weight	Evaluation Date
7	Managing Project Risk	Marchewka: Chapter 7, PMBOK: Chapter 11	• Apply risk identification tools and understand the causes, effects, and the integrative nature of project risks. • Describe qualitative and quantitative analysis techniques. • Explain the various risk strategies, such as insurance, avoidance, or mitigation. • Describe risk monitoring and control.	Instructor-led/ online materilas Test	Midterm Test	current week
8	Managing Project Stakeholders and Communication	Marchewka: Chapter 8, PMBOK: Chapters 10, 13	• Describe the informal organization. • Develop a stakeholder analysis. • Explain several types of reporting tools that support the communication plan. • Apply the concept of earned value and discuss how earned value provides a means of monitoring and forecasting a project's progress. • Describe how information may be distributed to the project stakeholders and the role information technology plays to support project communication.	Instructor-led/ online materials Group work	Final Project Batch 2 (online version) Final Project Work (in-class version)	current week
9	Managing Project Quality	Marchewka: Chapter 9, PMBOK: Chapter 8	• Describe project quality management (PQM). • Define process capability and maturity defined under a quality management system called the capability maturity model integrated (CMMI). • Distinguish between validation and verification activities and how these activities support project quality management. • Apply the quality concepts, methods, and tools introduced in this chapter to develop a project quality plan.	Instructor-led/ online materials	Quiz 2 (online version) Final Project Work (in-class version)	current week
10	Leading the Project Team	Marchewka: Chapter 10, PMBOK: Chapter 9	• Define leadership and understand its role and importance in successfully managing projects. • Describe the five approaches to exemplary leadership and six leadership styles. • Explain the concept of emotional intelligence and how it can help one to become a more effective leader. • Define ethics and understand its	Instructor-led/ online materials Group Work	Final Project Batch 3 (online version) Quiz 2 (in-class version)	current week

Week	Topics	Readings/Materials	Weekly Learning Outcome(s)	Instructional Strategies	Evaluation Name and Weight	Evaluation Date
			importance in project leadership. • Identify some of the ethical challenges that you may face as a project leader or project team member. • Define the difference between a work group and a team. • Describe culture and diversity as well as some of the challenges of leading and managing a multicultural project.			
11	Managing Organizational Change, Resistance, & Conflict	Marchewka: Chapter 11	• Describe the discipline of organizational change management. • Explain the impact of change. • Describe how change can be viewed as a process and identify the emotional responses people might have when faced with change. • Apply the concepts and ideas in this chapter to develop a change management plan. This plan should focus on assessing the organization's willingness and ability to change, developing a change strategy, implementing and tracking the progress toward achieving the change and then evaluating whether the change was successful and documenting the lessons learned from those experiences. • Discuss the nature of resistance and conflict and apply several techniques for dealing with conflict and resistance in an efficient and effective way.	Instructor-led/ online materials	Final Project Work (in-class version)	current week
12	Project Implementation, Closure, and Evaluation	Marchewka: Chapter 12	• Describe the three tactical approaches to information implementation and installation. • Explain the processes associated with project closure to ensure that the project is closed in an orderly manner. • Identify the four different project evaluations or reviews.	Instructor-led/ online materials	Final Project Work (in-class version)	current week
13	Course Review	Marchewka: Chapters 1, 2 PMBOK: Chapters 1,2,3	• Understand the life cycle of projects, relationship of different processes and process groups to knowledge areas • Describe the necessity of synchronization and dependencies among project	Instructor-led/ online materials	Final Term project hardcopy and presentation	current week

Week	Topics	Readings/Materials	Weekly Learning Outcome(s)	Instructional Strategies	Evaluation Name and Weight	Evaluation Date
			activities • Explain the main project documents and their role in project delivery success.		(virtual presentation for online version; in person for in-class version)	
14	Final Exam	Marchewka: Chapters 1-12, and additionally PMBOK when needed	Review and answer questions based on the topics Week 1-12	Review	Final Test	current week