

**INFO20172****IT Project Management using PMP****Sheridan****I: Administrative Information   II: Course Details   III: Topical Outline(s)   Open in Word****Retain during the course and for future use when applying for credit at other educational institutions****Land Acknowledgement**

Sheridan College resides on land that has been, and still is, the traditional territory of several Indigenous nations, including the Anishinaabe, the Haudenosaunee Confederacy, the Wendat, and the Mississaugas of the Credit First Nation. We recognize this territory is covered by the Dish with One Spoon treaty and the Two Row Wampum treaty, which emphasize the importance of joint stewardship, peace, and respectful relationships.

As an institution of higher learning Sheridan embraces the critical role that education must play in facilitating real transformational change. We continue our collective efforts to recognize Canada's colonial history and to take steps to meaningful Truth and Reconciliation.

**Section I: Administrative Information**

**Program(s):** CST-Info Tech Infrastruct Svc, CST-Software Dev & Network Eng, CST-Software Engineering, CST-Systems Analyst, Computer Engineering Technolog, Computer Engineering Technician, Computer Programming, Info Tech Support Services, Internet Communications Techno

**Program Coordinator(s):** Simon Hood, Jon Berge, Paul Bonenfant, Ann Cadger, Felix Carapaica, Maninder Tatla, Satyendra Narayan

**Course Leader or Contact:** Srikanth Hari

**Version:** 20240108\_02

**Status:** Approved (APPR)

**Total hours:** 42.0

**Credit Value:** 3.0

**Credit Value Notes:** N/A

**Effective:** Winter 2024

**Prerequisites:** N/A

**Corequisites:** N/A

**Equivalents:** N/A

**Pre/Co/Equiv Notes:** N/A

**Section I Notes:** This 3-hour course is delivered in both classroom (face-to-face) and online modes. The classroom (face-to-face) mode is delivered in a traditional classroom format. Online means that weekly sessions are conducted in an online format. Please note that for online sections, students will still be expected to write their tests physically on campus. Both delivery modes require a working laptop, webcam, and reliable internet connection. Lockdown Browser will also be required.

**Section II: Course Details****Detailed Description**

Project management involves projects that are made up of a sequence of tasks and sub-tasks that upon completion mark the end of a project. Management of the processes and resources is also a part of project management. The material included in this course will focus on the deliverables of a project (e.g. Project Charter), creating a work breakdown structure (WBS), and the creation, maintenance and evaluation of a project plan. Students will be required to develop an understanding of both the theory and practice of project management including utilization of scheduling, evaluation and communication tools.

**Program Context**

**CST-Info Tech Infrastruct Svc**

**Program Coordinator(s):** Maninder Tatla

As business and industry evolves there will continue to be increasing need for graduates from Information Technology Programs to be able to devise, define and

track complex deliverables through a variety of iterations and utilization of different personnel. As our graduates become involved in the design, implementation and testing of new processes and systems, project management skills will be a necessary part of their success.

**CST-Software Dev & Network Eng      Program Coordinator(s): Simon Hood**

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**CST-Software Engineering      Program Coordinator(s): Satyendra Narayan**

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**CST-Systems Analyst      Program Coordinator(s): Paul Bonenfant**

As business and industry evolves there will continue to be increasing need for graduates from Information Technology Programs to be able to devise, define and track complex deliverables through a variety of iterations and utilization of different personnel. As our graduates become involved in the design, implementation and testing of new processes and systems, project management skills will be a necessary part of their success.

**Computer Engineering Technolog      Program Coordinator(s): Jon Berge**

As business and industry evolves there will continue to be increasing need for graduates from Information Technology Programs to be able to devise, define and track complex deliverables through a variety of iterations and utilization of different personnel. As our graduates become involved in the design, implementation and testing of new processes and systems, project management skills will be a necessary part of their success.

**Computer Engineering Technician      Program Coordinator(s): Jon Berge**

As business and industry evolves there will continue to be increasing need for graduates from Information Technology Programs to be able to devise, define and track complex deliverables through a variety of iterations and utilization of different personnel. As our graduates become involved in the design, implementation and testing of new processes and systems, project management skills will be a necessary part of their success.

**Computer Programming      Program Coordinator(s): Ann Cadger, Satyendra Narayan**

As business and industry evolves there will continue to be increasing need for graduates from Information Technology Programs to be able to devise, define and track complex deliverables through a variety of iterations and utilization of different personnel. As our graduates become involved in the design, implementation and testing of new processes and systems, project management skills will be a necessary part of their success.

**Info Tech Support Services      Program Coordinator(s): Maninder Tatla**

As business and industry evolves there will continue to be increasing need for graduates from Information Technology Programs to be able to devise, define and track complex deliverables through a variety of iterations and utilization of different personnel. As our graduates become involved in the design, implementation and testing of new processes and systems, project management skills will be a necessary part of their success. This program is now called Computer Systems Technician - Information Technology Infrastructure and Services.

**Internet Communications Techno      Program Coordinator(s):** Felix Carapaica

As business and industry evolves there will continue to be increasing need for graduates from Information Technology Programs to be able to devise, define and track complex deliverables through a variety of iterations and utilization of different personnel. As our graduates become involved in the design, implementation and testing of new processes and systems, project management skills will be a necessary part of their success.

## Course Critical Performance and Learning Outcomes

### Critical Performance:

By the conclusion of this course, students will have showcased proficiency in not only traditional project management phases of initiation, planning, execution, monitoring, control, and closure, but also in the Agile framework's iterative approach to project delivery. They will possess a nuanced understanding of essential project components such as quality, communication, stakeholder relationships, and risk. Furthermore, their adeptness with modern project management tools, particularly JIRA, will enable them to bridge theoretical concepts with practical execution seamlessly.

### Learning Outcomes:

To achieve the critical performance, students will have demonstrated the ability to:

1. Define, describe, and differentiate between traditional project management elements, Agile methodologies, and their respective process methods.
2. Establish comprehensive terms of reference and Agile vision statements before initiating any project, ensuring alignment with stakeholder expectations.
3. Understand, define, and adeptly apply the critical triple constraints of projects: schedule, cost, and scope, considering both traditional and Agile perspectives.
4. Segment a project into defined stages or iterations for enhanced planning, continuous testing, feedback incorporation, and success evaluation.
5. Evaluate and employ optimal methods for project planning, cost estimation, and resource allocation, leveraging JIRA for hands-on application.
6. Design, communicate, and execute robust quality checks and controls throughout a project's lifecycle, emphasizing both traditional quality metrics and Agile acceptance criteria.
7. Identify, assess, and mitigate potential risks and threats to a project using a blend of traditional risk management strategies and Agile risk-adjusted techniques.
8. Develop and present diverse management reports, synthesizing project insights in both digital (online) and physical formats, with proficiency in JIRA for real-time tracking and reporting.

## Evaluation Plan

Students demonstrate their learning in the following ways:

### Evaluation Plan: IN-CLASS & ONLINE INSTRUCTION

Midterm Exam	20.0%
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Final Exam	20.0%
Quizzes 10 @ 2%	20.0%
Assignment 5 @ 4%	20.0%
Project Hands-On	20.0%
Total	100.0%

#### Evaluation Notes and Academic Missed Work Procedure:

To pass the course, students must achieve a 50% weighted average across the tests and the exams and at least 50% overall in the course.

Students must submit/complete all assignments, in-class activities and projects by the scheduled due date and write all tests on the specified date/time. Exceptions will only be made under extraordinary circumstances.

Refer to the School of Applied Computing's Academic Procedures for Evaluations for more details regarding missed work: [Procedures for Evaluations](#)

#### Evaluation Plan: IN-CLASS

Midterm Exam	20.0%
Final Exam	20.0%
Quizzes 5 @ 4%	20.0%
Assignment 10/12 @ 2%	20.0%
Project Hands-On	20.0%
Total	100.0%

#### Evaluation Notes and Academic Missed Work Procedure:

To pass the course, students must achieve a 50% weighted average across the tests and the exams and at least 50% overall in the course.

Students must submit/complete all assignments, in-class activities and projects by the scheduled due date and write all tests on the specified date/time. Exceptions will only be made under extraordinary circumstances.

Refer to the School of Applied Computing's Academic Procedure for Evaluations for more details regarding missed work: [Procedures for Evaluations](#)

### Provincial Context

The course meets the following Ministry of Colleges and Universities requirements:

#### Essential Employability Skills

Essential Employability Skills emphasized in the course:

- Communication Skills - Communicate clearly, concisely and correctly in the written, spoken, visual form that fulfills the purpose and meets the needs of the audience.
- Communication Skills - Respond to written, spoken, or visual messages in a manner that ensures effective communication.
- Numeracy - Execute mathematical operations accurately.
- Critical Thinking & Problem Solving Skills - Use a variety of thinking skills to anticipate and solve problems.
- Critical Thinking & Problem Solving - Apply a systematic approach to solve problems.
- Information Management Skills - Analyze, evaluate, and apply relevant information from a variety of sources.
- Information Management - Locate, select, organize and document information using appropriate technology and information systems.

- Interpersonal Skills - Show respect for the diverse opinions, values, belief systems, and contributions of others.
- Interpersonal Skills - Interact with others in groups or teams in ways that contribute to effective working relationships and the achievement of goals.
- Personal Skills - Manage the use of time and other resources to complete projects.
- Personal Skills - Take responsibility for one's own actions, decisions, and consequences.

### **Prior Learning Assessment and Recognition**

PLAR Contact (if course is PLAR-eligible) - Office of the Registrar

Students may apply to receive credit by demonstrating achievement of the course learning outcomes through previous relevant work/life experience, service, self-study and training on the job. This course is eligible for challenge through the following method(s):

- Challenge Exam

*Notes:*

## **Section III: Topical Outline**

Some details of this outline may change as a result of circumstances such as weather cancellations, College and student activities, and class timetabling.

**Instruction Mode:** In-class & Online Instruction

**Professor:** Multiple Professors

**Resource(s):** N/A

**Applicable student group(s):** Computer Programmer, Computer Systems Technology - Systems Analyst, Computer Systems Technician - Software Engineering, Computer Systems Technology - Software Development and Network Engineering, Information Technologies Support Services, Computer Engineering Technician/Technology, Internet Communications Technology

### **Course Details:**

Some details of this outline may change as a result of circumstances such as weather cancellations, College and student activities, and class timetabling.

#### **THEORY**

Foundations of Project Management.  
Introduction to Agile Methodology.  
Commencing the Project.  
Requirements and Scope Control.  
Planning for Success.  
Schedule Management and Estimations.  
Resource Management and Team Dynamics.  
Financial Aspects of Project Management.  
Risk and Communication Management.  
Ensuring Quality

#### **PRACTICAL**

Use of project tool, i.e., JIRA  
Creation of a Projects, Epics, Stories and ways to track progress, identify milestones, resource allocation and utilization.  
Project finalization  
Testing Schedule

#### **Module 1**

- Different methodologies that are used in the industry for managing projects.
  - Key Concepts including Scope, Schedule, Budget Resources, Risks, and Communication
  - What is a typical Project Cycle
  - Waterfall vs Agile Methodology
- Project: Introduce Project

## Module 2

- What is Agile
- History of Agile
- Agile Principles governing projects
- Agile Roles
- Agile Concepts
- Agile Ceremonies

Quiz 1 @ 2% (Covers Module 1 & Module 2)

Assignment 1 @ 4% (Account Setup and Orientation to tool)

Project (In-progress)

## Module 3

- Project Initiation
- Project Charter
- Stakeholder Identification
- Scope Statement
- Business Case
- Developing an Agile Vision Statement
- Developing a Product Backlog

Quiz 2 @ 2% (Covers Module 3)

Project (In-progress)

## Module 4

- Requirements Gathering
- Scope Verification and Control
- Agile: Developing User Stories, Prioritizing and Backlog Grooming

Quiz 3 @ 2% (Covers Module 4)

Assignment 2 @ 4% (Covers Module 2, 3, 4)

Project (In-progress)

## Module 5

- Project Planning
- Work Breakdown Structure (WBS)
- Schedule, Budget, Resource Plans
- Agile: Story Mapping, Releases, and Sprints

Quiz 4 @ 2% (Covers Module 5)

Project (Present Vision, User Stories, Backlog)

## Module 6

- Managing Project Schedule
- Estimating
- GANTT Charts
- Progress Tracking
- Agile: Estimation, Sprint Planning, Mapping Stories to Sprints and Releases, Burndown Charts

Quiz 5 @ 2% (Covers Module 6)

Project (In-Progress)

## Module 7

- Managing Project Resources
- Defining resource requirements
- Acquiring and developing project team
- Agile: Self-organizing teams, Daily Scrum

Quiz 6 @ 2% (Covers Module 7)

Assignment 3 @ 4% (Covers Module 5,6,7)

Quiz 7 @ 2% (Test Prep: Covers Module 1,2, 3,4, 5, 6, 7)

Project (In-Progress)

Test One (midterm) @ 20% (Includes Content from Module 1 to Module 7)

## Module 8

- Cost Estimation Techniques
- Developing a Project Budget
- Monitoring Costs and Taking Corrective Action

- Agile: Relative Cost of Delay
- Quiz 8 @ 2% (Covers Module 8)  
Project (Present: Release plan, Sprint plans, and Current burn-down charts)

#### Module 9

- Risk Identification, Analysis, Response
- Risk Register and Response Strategies
- Communication Plan
- Agile: Risk-adjusted backlogs, Risk Burn-down charts, Daily Standups

Quiz 9 @ 2% (Covers Module 9)

Assignment 4 @ 4% (Covers Module 8,9)

Project (In-progress)

#### Module 10

- Quality Planning, Quality Assurance, Quality Control
- Quality Metrics, Checklists
- Agile: Definition of Done, Acceptance Criteria, Issue Creation

Quiz 10 @ 2% (Covers Module 10)

Project (In-progress)

#### Module 11

- Change Management
- Tracking Project Performance
- Obtaining Final Acceptance
- Lessons Learned
- Project Closure
- Agile: Critical Metrics, Retrospective

Quiz 11 @ 2% (Covers Module 11)

Quiz 12 @ 2% (Test Prep – Covers Module 8, 9, 10, 11)

Assignment 5 @ 4% (Covers Modules 10,11)

Project (Present: Summary, Overall project, Risks, Closure activities, Retrospective) – This will be done in the penultimate week

Test Two (final) 20% (Includes Content from Module 8 to Module 11)

#### Sheridan Policies

It is recommended that students read the following policies in relation to course outlines:

- **Academic Integrity**
- **Copyright**
- **Intellectual Property**
- **Respectful Behaviour**
- **Accessible Learning**

All Sheridan policies can be viewed on the [Sheridan policy website](#).

**Appropriate use of generative Artificial Intelligence tools:** In alignment with Sheridan's Academic Integrity Policy, students should consult with their professors and/or refer to evaluation instructions regarding the appropriate use, or prohibition, of generative Artificial Intelligence (AI) tools for coursework. Turnitin AI detection software may be used by faculty members to screen assignment submissions or exams for unauthorized use of artificial intelligence.

**Course Outline Changes:** The information contained in this Course Outline including but not limited to faculty and program information and course description is subject to change without notice. Nothing in this Course Outline should be viewed as a representation, offer and/or warranty. Students are responsible for reading the [Important Notice and Disclaimer](#) which applies to Programs and Courses.