



THE UNIVERSITY OF WINNIPEG

APPLIED COMPUTER SCIENCE DEPARTMENT

ACS-3901-001 – Principles of Software Project Management

Instructor Information

Instructor: Dr. Sheela Ramanna **Office:** 3D15
E-mail: s.ramanna@uwinnipeg.ca **Office Hours:** Thursday 2:30 - 3:30pm
Class Meeting Time: T, Th 1:00 - 2:15pm **Room No:** 3D04
Course Web page: <http://www.acs.uwinnipeg.ca/3901>

Important Dates

1. Quiz 1: February 14, 2017
2. Quiz 2: March 16, 2017
3. Final Withdrawal Date w/o academic penalty: March 1, 2017
(A minimum of 20% of the work on which the final grade is based will be evaluated and available to the student before the voluntary withdrawal date)
4. Reading Week: Feb 19-25 (No classes)
5. Last Class: April 4, 2017
6. Final Exam (Comprehensive – 3hours): April 20, 2017 starting 9:00am

Additional Course Related Information

1. When it is necessary to cancel a class due to exceptional circumstances, instructors will make every effort to inform you via uwinnipeg email, as well as the departmental assistant and Chair/Dean so that class cancellation forms can be posted outside classrooms.
2. Your uwinnipeg email address will normally be used for course related correspondence.
3. Please note that withdrawing before the VW date does not result in a fee refund.
4. Class make-up days are scheduled at the end of term for courses that conflict with holidays.

Course Objectives

This course introduces proven principles, methods and techniques for effective planning, scheduling, monitoring and controlling of deliverable-oriented work. This course has been specifically designed to also cover essential project management techniques practised in the 4th

year capstone ACS-4901/6 Systems Development Project course. Specifically, we will study the following project, product and people competencies:

- Selecting Software Development Lifecycles
- Project Teams and Roles --Team Selection
- Preparing Project Plans, Proposal and SSR
- Software Sizing and Cost Estimation Models
- Scheduling with PERT/CPM
- Risk Management Model
- Software Metrics, CMM model and GQM Paradigm
- Verification and Validation (Reviews, White and Black Box testing)
- Project Tracking and Control
- Quality Assurance and Configuration Management

Evaluation Criteria

Assignments/Group work (4)	15%
Presentation	5%
2 Quizzes (15% each)	30%
Final Exam	50%

Assignments involving group work will require the use of such tools as:

- Trello Collaboration Tool
- COCOMO Cost Estimation Tool
- GitHub distributed revision control and source code control tool
- Phabricator PM Tool
- Agilefant – project management tool for agile model
- May also require teams to independently investigate other open source tools
- Will require team presentation in class

NO LATE WORK will be accepted. Class work must be typed and submitted in an 8.5x11 folder with your name and course number on the outside. *Please contact me as soon as possible* if extenuating circumstances require you to miss a class, deadline, tests or examination. Should illness prevent participation in a test or examination, a medical certificate from a certified physician must be supplied before any adjustments are considered.

Exams and tests will test both factual knowledge and the ability to apply course material to real life situations and problems. Answers on exams, tests, assignments must be meaningful to achieve potential credit. English dictionary aids will be allowed as appropriate. *Keep a copy of all class work* (e.g., assignment, tests) handed back in case there is an error in recording of marks by the instructor.

Final Letter Grade Assignment

Historically, numerical percentages have been converted to letter grades using the following scale. However, instructors can deviate from these values based on pedagogical nuances of a particular class, and final grades are subject to approval by the Department Review Committee.

A+	90+ - 100%	B	70 - 74%	F	below 50%
A	85 - 90%	C+	65 - 69%		
A-	80 - 84%	C	60 - 64%		
B+	75 - 79%	D	50 - 59%		

Exam Requirements

- A Photo Id *IS NOT* required for taking a test or an exam.
- Cell phones are not permitted in the classroom.

Students with documented disabilities, temporary or chronic medical conditions, requiring academic accommodations for tests/exams (e.g., private space) or during lectures/laboratories (e.g., note-takers) are encouraged to contact Accessibility Services (AS) at 786-9771 or accessibilityservices@uwinnipeg.ca to discuss appropriate options. All information about a student's disability or medical condition remains confidential. <http://www.uwinnipeg.ca/accessibility>.

Students facing a charge of academic or non-academic misconduct may choose to contact the University of Winnipeg Students' Association (UWSA) where a student advocate will be available to answer any questions about the process, help with building a case, and ensuring students have access to support. For more information or to schedule an appointment, visit our website at www.theuwsa.ca/academic-advocacy or call 204-786-9780.

We ask that you please be respectful of the needs of classmates and instructors/professors by avoiding the use of unnecessary scented products while attending lectures. Exposure to scented products can trigger serious health reactions in persons with asthma, allergies, migraines or chemical sensitivities. Please consider using unscented necessary products and avoiding unnecessary products that are scented (e.g. perfume).

Required Text Book(s)/Reading List*

- Quality Software Project Management by Futrell, Shafer, and Shafer, Prentice Hall, 2002, ISBN: 0-13-091297-8
- Class Notes

Prerequisite Information (This information can be found in the UW General calendar)

A grade of at least C in ACS-1904(3), ACS-2913(3), (or the previous ACS-2911(3) and ACS-2912(3)) and ACS-2814(3) (or the former ACS-2914(3)).

Misuse of Computer Facilities, Plagiarism, and Cheating

Academic dishonesty is a very serious offense and will be dealt in accordance with the University's policies. Be sure that you have read and understood **Regulations & Policies #8**, starting on page 27, in the 2016-2017 UW Course Calendar.

Tentative List of Topics

Topic	Chapters*
Competencies and Definitions, SDLC	Chap.1 and 3
Selecting SDLC -- Review of Process Models	Chap. 4
Project Teams and Roles --Team Selection	Chap.6, 12, 29
Project Planning and WBS -- Project Proposal/Charter	Chap.7 and 8
Tasks, Activities -- Project Plan Creation	Chap. 9
Software Sizing – Size Estimation Models	Chap.10
Estimating Duration and Cost – Cost Estimation Models	Chap. 11
Scheduling – PERT/CPM Scheduling Models	Chap. 14 and 15
Software Requirements Specification—Creating SSR	Chap. 16 and 17
Risk Management – Quantitative Risk Assessment	Chap. 18
Software Metrics – Quantitative Product and Process Metrics Assessment	Chap. 21
V&V- Testing strategies, test coverage and path measures	Chap. 23**
Project Tracking and Control – Quantitative Schedule and Progress Management, Error Tracking	Chap. 25**
SQA and SCM	Chap. 30**, 31**

* Not all the materials in the above chapters will be covered.

** These chapters are not included in the new edition. Notes will be given and the 2002 edition of the text book is placed on reserve in the library