



**CAMOSUN COLLEGE**  
**Trades and Technology**  
**Computer Science**

**ICS 215**  
**Systems Analysis and Design**  
**Winter 2020**

**COURSE OUTLINE**

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The calendar description is available on the web @

D2L ICS-215-X01-X02AB

*Ω Please note: This outline will not be kept indefinitely. It is recommended students keep this outline for their records, especially to assist in transfer credit to post-secondary institutions.*

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**1. Instructor Information**

(a) Instructor	Mr. Stephen Lang		
(b) Office hours	Thursday 1:00-3:00		
(c) Location	Tech 252		
(d) Phone	250-370-4454	Alternative:	
(e) E-mail	<a href="mailto:langs@camosun.ca">langs@camosun.ca</a>		
(f) Website	Camosun College D2L		

**2. Intended Learning Outcomes**

Upon completion of this course, students will be able to

- apply a project life-cycle discipline and effectively communicate the analysis and design of a software project by:
  - explain overall concepts relating to information systems development;
  - initialize and plan a systems development;
  - use communications skills effectively in the information gathering phase of the development process;
  - analyze and design a software system;
  - identify and scope problems;
  - prepare requirements for a software specifications document;
  - use project management techniques for communicating with users;
  - use various tools and techniques appropriately in the development process
  - design appropriate UML models including use case, scenarios, activities, sequence, and statechart to document the requirements and processes
  - understand the agile development model

**3. Required Materials**

(a) Texts

None required. Recommended:

The textbook for this course is: **Systems Analysis and Design (9<sup>th</sup> Edition)** by Kendall and Kendall (Prentice Hall ISBN: 0133023443)

(b) Other

Pre-requisite: C in ENGL 151, or ENGL 161, or ENGL 163; ICS 120 and ICS 125; COMP 155 and COMP 235 and either ENGL 150 or ENGL 170

#### 4. Course Content and Schedule

w 1	Jan 7	Introduction + Chapter 1: Introduction to Systems Analysis	
w 2	Jan 14	Chapter 2: Understanding and Modeling Organizational Systems	Lab 1: Prepare a Project Charter
w 3	Jan 21	Chapter 3: Project Management	Lab 2: Kick Off – Requirements Planning and Gathering
w 4	Jan 28	<b>Test 1</b> + Chapter 4: Information Gathering Interactive Methods	Lab 3: Project Planning; create a Gantt chart
w 5	Feb 4	Chapter 5: Information Gathering Unobtrusive Methods	Lab 4: Requirements Documentation: Use Cases
w 6	Feb 11	Chapter 6: Prototyping and Agile Methods	Lab 5: Scrum; build an online scrum backlog
w 7	Feb 18	Reading Break	
w 8	Feb 25	<b>Test 2</b> + Chapter 7: Data Flow Diagrams	
w 9	Mar 3	Chapter 8: Data Dictionaries + Chapter 9: Process Specifications	Lab 6: Requirements Documentation: Process/Flow Models; create context level diagram and dataflow diagrams
w 10	Mar 10	Chapter 10: Object Oriented Design and UML	(cont'd)
w 11	Mar 17	Chapter 11: Designing Effective Output + Chapter 12: Designing Effective Input	Lab 7: Requirements Documentation: Data and Behaviour Models; create logical ER models
w 12	Mar 24	<b>Test 3</b> + Chapter 13: Database Design	(cont'd)

w 13	Mar 31	Chapter 14: HCI	Lab 8: UML; create UML activity diagrams and UML use case descriptions
w 14	Apr 7	Chapter 16: Quality Assurance + review of course	(cont'd)
w 15	Apr 10	Exam week - <b>Test 4</b>	

Class hours: 2 lectures per week x 13 weeks – 1 statutory day = 25 lecture hours

Lab hours: 3 lab hours per week x 13 weeks = 39 lab hours

Out of Class Requirements: roughly 3-6 hours per week for reading and completing lab work

Lab assignments (8 total)

Tests (Three, in class, closed book)

Final test, closed book (3 hours)

## 5. Basis of Student Assessment (Weighting)

### (a) Assignments

8 lab assignments – worth 30% of final grade

### (b) Quizzes

10 quizzes – worth 10% of final grade

### (c) Exams

4 tests – each worth 15% of final grade, closed book

Test 1 – chapters 1, 2, 3

Test 2 – chapters 4, 5, 6

Test 3 – chapters 7, 8, 9

Test 4 – chapters 10, 11, 12, 12, 14, 16

### (d) Other (e.g. Project, Attendance, Group Work)

## 6. Grading System

*(If any changes are made to this part, then the Approved Course description must also be changed and sent through the approval process.)*

*(Mark with "X" in box below to show appropriate approved grading system – see last page of this template.)*

Standard Grading System (GPA)

Competency Based Grading System

## 7. Recommended Materials to Assist Students to Succeed Throughout the Course

## 8. College Supports, Services and Policies



### Immediate, Urgent, or Emergency Support

If you or someone you know requires immediate, urgent, or emergency support (e.g. illness, injury, thoughts of suicide, sexual assault, etc.), **SEEK HELP**. Resource contacts @

<http://camosun.ca/about/mental-health/emergency.html> or <http://camosun.ca/services/sexual-violence/get-support.html#urgent>

### College Services

Camosun offers a variety of health and academic support services, including counselling, dental, disability resource centre, help centre, learning skills, sexual violence support & education, library, and writing centre. For more information on each of these services, visit the **STUDENT SERVICES** link on the College website at <http://camosun.ca/>

### College Policies

Camosun strives to provide clear, transparent, and easily accessible policies that exemplify the college's commitment to life-changing learning. It is the student's responsibility to become familiar with the content of College policies. Policies are available on the College website at <http://camosun.ca/about/policies/>. Education and academic policies include, but are not limited to, Academic Progress, Admission, Course Withdrawals, Standards for Awarding Credentials, Involuntary Health and Safety Leave of Absence, Prior Learning Assessment, Medical/Compassionate Withdrawal, Sexual Violence and Misconduct, Student Ancillary Fees, Student Appeals, Student Conduct, and Student Penalties and Fines.

## A. GRADING SYSTEMS <http://camosun.ca/about/policies/index.html>

The following two grading systems are used at Camosun College:

### 1. Standard Grading System (GPA)

Percentage	Grade	Description	Grade Point Equivalency
90-100	A+		9
85-89	A		8
80-84	A-		7
77-79	B+		6
73-76	B		5
70-72	B-		4
65-69	C+		3
60-64	C		2
50-59	D		1
0-49	F	Minimum level has not been achieved.	0

### 2. Competency Based Grading System (Non GPA)

This grading system is based on satisfactory acquisition of defined skills or successful completion of the course learning outcomes

Grade	Description
COM	The student has met the goals, criteria, or competencies established for this course, practicum or field placement.

DST	The student has met and exceeded, above and beyond expectation, the goals, criteria, or competencies established for this course, practicum or field placement.
NC	The student has not met the goals, criteria or competencies established for this course, practicum or field placement.

## B. Temporary Grades

Temporary grades are assigned for specific circumstances and will convert to a final grade according to the grading scheme being used in the course. See Grading Policy at <http://camosun.ca/about/policies/index.html> for information on conversion to final grades, and for additional information on student record and transcript notations.

Temporary Grade	Description
I	<i>Incomplete:</i> A temporary grade assigned when the requirements of a course have not yet been completed due to hardship or extenuating circumstances, such as illness or death in the family.
IP	<i>In progress:</i> A temporary grade assigned for courses that are designed to have an anticipated enrollment that extends beyond one term. No more than two IP grades will be assigned for the same course.
CW	<i>Compulsory Withdrawal:</i> A temporary grade assigned by a Dean when an instructor, after documenting the prescriptive strategies applied and consulting with peers, deems that a student is unsafe to self or others and must be removed from the lab, practicum, worksite, or field placement.