CAMOSUN COLLEGE
Trades and Technology
Computer Science

ICS 221
Web Services
Winter 2020

COURSE OUTLINE

**The calendar description is available on the web
@**   http://camosun.ca/learn/calendar/current/web/ics.html#ICS221

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.

1. Instructor Information

(a)	**Instructor**	Jason Cumiskey	
(b)	**Office hours**	before and after lectures and labs or email a time	
(c)	**Location**	TEC249	
(d)	**Phone**	Use email	**Alternative:**
(e)	**E-mail**	cumiskey@camosun.bc.ca	
(f)	**Website**	http://online.camosun.ca/ (D2L)	

2. Intended Learning Outcomes

a) Describe web services, the need for web services, and the principles of service-oriented architecture;

b) Design, implement, test, debug, optimize and deploy web-based applications and web services using modern technology;

c) Use development tools to create and interact with web services;

d) Identify and select the appropriate framework components in the creation of web service solutions;

e) Apply object-oriented programming principles to the creation of web service solutions;

f) Apply accepted standards to ensure security, privacy, and integrity of web services while recognizing the ethical, legal, and social implications of web services implementations.

3. Required Materials

(a) Texts
No formal textbook required. Links to Online resources and suggested books will be provided.

(b) Other
Although not required, a personal laptop would be an asset.

4. Course Content and Schedule
The Content and Schedule that follows is tentative. *The content and schedule can change at any time based on students' progress through the course and/or other incidentals.*

Week	Week of	Topic	Delivery
1	Jan 6	ICS 211 Post Mortem and Intro to Web Services	No Lab
2	Jan 13	CSS Framework, ICS 211 Review	Lab 1
3	Jan 20	Designing an API	Lab 2
4	Jan 27	Designing the Data Model	Lab 3
5	Feb 3	Node.js/Express	
6	Feb 10	Review For Mid-Term	Lab 4
7	**Feb 17**	**READING BREAK**	**N/A**
8	Feb 24	Build REST API JS	Mid-Term Exam
9	Mar 2	Build REST API Python	Lab 5
10	Mar 9	Build GraphQL	Lab 6
11	Mar 16	Authentication	
12	Mar 23	Authorization	Lab 7
13	Mar 30	OAuth	Lab 8
14	Apr 6	Review For Final	
15	Apr 14	Final Exam	

5. Basis of Student Assessment (Weighting)

(a) Labs/Project (20% of grade)

You must complete all labs to pass the course.
You must achieve a minimum average of 55% on the labs.

You can hand in Labs up to 1 week late from their due date and time at a 50% penalty. After 1 week late, you will be graded a zero but MUST STILL COMPLETE ALL LABS AND ASSIGNMENTS TO PASS THE COURSE. Exceptions will ONLY be given for dire and documented short-term medical or family emergencies

(b) Mid-Term Test (30% of grade)

You must achieve at least 55% on the Mid-Term to pass the course.

(c) Final Exam (50% of grade)

You must achieve a combined minimum average of 55% on the Final exam to pass the course.

Only one person can leave the exam at a time for bathroom breaks.

6. Grading System

| X | Standard Grading System (GPA) |

| | Competency Based Grading System |

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

Links to online resources and references to books will be provided in the labs and lectures.

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

Department Policies:
    Grade review: You have 7 days after marks are posted to review with your instructor.
    Academic Dishonesty:

        1st violation: minus the weight of the deliverable and a note on your departmental file.

        2nd violation: F in the course

3rd violation: Student Conduct Policy E-2.5 is applied

Missed Examinations/Quizzes: If a student misses a quiz or an exam, a mark of zero will be assigned unless there are extenuating circumstances. In such cases, the proportion of grade assigned to the missed quiz or exam will be added to the proportion assigned to the final exam. The final exam will be held during exam week. NO consideration will be given to any student wishing to write the exam at any other time than that assigned.

Electronic Devices: The school's policy regarding electronic devices is that any student who has a cell phone or other unauthorized electronic device (ie. ipad, laptop, playbook, etc.) on their person or around their desk during an exam will be guilty of cheating and will a grade of "F" for the course.

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://www.camosun.bc.ca/policies/policies.php*

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://www.camosun.bc.ca/policies/E-1.5.pdf for information on conversion to final grades, and for additional information on student record and transcript notations.

Temporary Grade	Description
I	*Incomplete*: 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	*In progress*: 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	*Compulsory Withdrawal*: 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.