

| COURSE OUTLINE                                       |  |                     |
|--|--|---------------------|
| <b>TERM: Fall 2025</b>                               | <b>COURSE NO: IxD 202</b>                        |                     |
| <b>INSTRUCTOR:</b>                                   | <b>COURSE TITLE: Design for New Technologies</b> |                     |
| <b>OFFICE: LOCAL:</b><br><b>E-MAIL: @capilano.ca</b> | <b>SECTION NO(S):</b>                            | <b>CREDITS: 3.0</b> |
| <b>OFFICE HOURS:</b>                                 |  |                     |
| <b>COURSE WEBSITE:</b>                               |  |                     |

Capilano University acknowledges with respect the Lilwat7úl (Lil'wat), xʷməθkʷəy̓əm (Musqueam), shíshálh (Sechelt), Skwxwú7mesh (Squamish), and Səlílwətaʔ/Selilwitulh (Tsleil-Waututh) people on whose territories our campuses are located.

### COURSE FORMAT

Three hours of class time, plus an additional hour delivered through online or other activities for a 15-week semester. May be offered in mixed-mode format.

### COURSE PREREQUISITES/CO-REQUISITES

None

### CALENDAR DESCRIPTION

In this course, students will look beyond the most common screen-based devices (laptop and mobile) and apply user experience (UX) principles to future and emerging technologies such as artificial intelligence, voice-activated devices and augmented reality. Students will assess the impact of game theory and apply design thinking to new creative technologies. They will also complete visits to local studios, which will provide students with a solid understanding of the professional landscape of new technologies.

### REQUIRED TEXTS AND/OR RESOURCES

Details on recommended texts and readings, if any, will be supplied by the instructor.

### COURSE STUDENT LEARNING OUTCOMES

**On successful completion of this course, students will be able to do the following:**

- Describe the evolution of computer hardware and interactive devices.
- Examine methods used to design with or for future technologies, with a focus on artificial intelligence (AI), including prompt engineering, feedback collection, and error handling
- Apply user experience principles to touch-based devices that are not mobile phones.
- Apply user experience principles to voice-activated devices, including interfaces for AI systems
- Assess game theory and gamification.

- Practice appropriate and effective group critique techniques.
- Compare and contrast how different communities access and utilize technology such as AI, including barriers to access, ethical considerations, and design for inclusivity.

## COURSE CONTENT

Students should expect to spend at least 4 hours/per week (outside of class time) on course readings, collaborative projects, or assignments.

| Week | Topic  |
|------|--|
| 1    | History of Computer Hardware and Interactive Services  |
| 2    | Cultural Habits of Digital Citizens and the Impact of Technology   |
| 3    | Design Methodologies of New Technologies: What new tech is out there and what is being used to design them |
| 4    | Touch-based Devices, Aspect Ratios and Implementation  |
| 5    | Accessibility, Inclusivity and Designer Responsibilities with New Technology                               |
| 6    | Design Systems and their Application to New Technologies   |
| 7    | Voice-activated Devices: Investigation and review  |
| 8    | Prototyping Workshop   |
| 9    | Chatbots and Other Customer Service Apps   |
| 10   | Group Presentation/Critique of Prototypes  |
| 11   | Game Theory and Gamification   |
| 12   | “Purple Cow” and Other Remarkable Interfaces   |
| 13   | Prototyping Workshop and Evaluation  |
| 14   | Immersive Experiences and Physical Installations   |
| 15   | Review   |

## EVALUATION PROFILE

| Assessment                      | % of Final Grade |
|---------------------------------|------------------|
| Participation & Professionalism | 10%              |
| Assignments                     | 50%-90%          |
| Quizzes/Midterm                 | 0%-40%           |
| Total                           | 100%             |

This course consists of several assignments. No one assignment will be valued at more than 35% of the final grade.

### Participation & Professionalism

Students will be evaluated on their active participation and engagement at 1% per class or to a maximum of 15% of the course grade. The evaluation criteria for participation will be determined by the instructor and cannot be solely based on attendance.

Participation and professionalism can be demonstrated during synchronous (live) and asynchronous (self-paced) classes through clear verbal and written communication, peer support, giving and

receiving critique, sharing work-in-progress, reflection, and ongoing curiosity about the subject matter.

## GRADING PROFILE

|             |            |            |           |
|-------------|------------|------------|-----------|
| A+ = 90-100 | B+ = 77-79 | C+ = 67-69 | D = 50-59 |
| A = 85-89   | B = 73-76  | C = 63-66  | F = 0-49  |
| A- = 80-84  | B- = 70-72 | C- = 60-62 |           |

### Incomplete Grades

Grades of Incomplete "I" are assigned only in exceptional circumstances when a student requests extra time to complete their coursework. Such agreements are made only at the request of the student, who is responsible to determine from the instructor the outstanding requirements of the course.

### Late Assignments

All late assignments will receive a penalty of a 20% deduction for each period of 1 to 7 days that an assignment is late.

### Missed Exams/Quizzes/Labs etc.

Missed exams, quizzes and tests (if any) will be assigned a grade of zero. Make-up exams, quizzes and tests are generally given only in medical emergencies or severe personal crises, at the discretion of the instructor. Accommodations can be made to honour community needs and traditional practices.

### Attendance

Students are expected to attend all classes and associated activities. Students who are absent for more than three classes without permission from the instructor may fail the course. At the discretion of the instructor, students may be marked absent for arriving more than 15 minutes late, leaving class early without permission or turning webcams off for extended periods of time.

Students are responsible for:

- Informing the instructor and division assistant in writing, if a class will be missed.
- Maintaining assignment due dates.
- Obtaining any missed class materials from their peers. It is not the instructor's responsibility to provide students with instruction that was missed during class time.

### English Usage

Students are expected to proofread all written work for grammatical, spelling and stylistic errors. Instructors may deduct marks for incorrect grammar and spelling in written assignments.

### Electronic Devices

Students may use electronic devices during class for course-related purposes only, unless they have a documented accommodation requirement from Accessibility Services. Use of the internet, social media or e-mail during class is limited to program-related work.

**On-line Communication**

Official communication between Capilano University and students is delivered to students' Capilano University email addresses only.

Instructors will be available during their office hours to support student learning and will communicate with students using their official Capilano University email or MS Teams. Students and instructors are encouraged to respond to online communications within 2 business days.

**UNIVERSITY OPERATIONAL DETAILS****Tools for Success**

Many services are available to support student success for Capilano University students. A central navigation point for all services can be found at: <https://www.capilanou.ca/student-services/>

**Capilano University Security: download the [CapU Mobile Safety App](#)**

**Policy Statement (S2009-06)**

Capilano University has policies on Academic Appeals (including appeal of final grade), Student Conduct, Academic Integrity, Academic Probation and other educational issues. These and other policies are available on the University website.

**Academic Integrity (S2017-05)**

Any instance of academic dishonesty or breach of the standards of academic integrity is serious and students will be held accountable for their actions, whether acting alone or in a group. See policy and procedures S2017-05 Academic Integrity for more information:

<https://www.capilanou.ca/about-capu/governance/policies/>

Violations of academic integrity, including dishonesty in assignments, examinations, or other academic performances, are prohibited and will be handled in accordance with the Student Academic Integrity Procedures.

**Academic dishonesty** is any act that breaches one or more of the principles of academic integrity. Acts of academic dishonesty may include but are not limited to the following types:

**Cheating:** Using or providing unauthorized aids, assistance or materials while preparing or completing assessments, or when completing practical work (in clinical, practicum, or lab settings), including but not limited to the following:

- Copying or attempting to copy the work of another during an assessment;
- Communicating work to another student during an examination;
- Using unauthorized aids, notes, or electronic devices or means during an examination;
- Unauthorized possession of an assessment or answer key; and/or,
- Submitting of a substantially similar assessment by two or more students, except in the case where such submission is specifically authorized by the instructor.

**Fraud:** Creation or use of falsified documents.

**Misuse or misrepresentation of sources:** Presenting source material in such a way as to distort its original purpose or implication(s); misattributing words, ideas, etc. to someone other than the original source; misrepresenting or manipulating research findings or data; and/or suppressing aspects of findings or data in order to present conclusions in a light other than the research, taken as a whole, would support.

**Plagiarism:** Presenting or submitting, as one's own work, the research, words, ideas, artistic imagery, arguments, calculations, illustrations, or diagrams of another person or persons without explicit or accurate citation or credit.

**Self-Plagiarism:** Submitting one's own work for credit in more than one course without the permission of the instructors, or re-submitting work, in whole or in part, for which credit has already been granted without permission of the instructors.

**Prohibited Conduct:** The following are examples of other conduct specifically prohibited:

- Taking unauthorized possession of the work of another student (for example, intercepting and removing such work from a photocopier or printer, or collecting the graded work of another student from a stack of papers);
- Falsifying one's own and/or other students' attendance in a course;
- Impersonating or allowing the impersonation of an individual;
- Modifying a graded assessment then submitting it for re-grading; or,
- Assisting or attempting to assist another person to commit any breach of academic integrity.

### **Sexual Violence and Misconduct**

All Members of the University Community have the right to work, teach and study in an environment that is free from all forms of sexual violence and misconduct. Policy B401 defines sexual assault as follows:

Sexual assault is any form of sexual contact that occurs without ongoing and freely given consent, including the threat of sexual contact without consent. Sexual assault can be committed by a stranger, someone known to the survivor or an intimate partner.

Safety and security at the University are a priority and any form of sexual violence and misconduct will not be tolerated or condoned. The University expects all Students and Members of the University Community to abide by all laws and University policies, including B.401 Sexual Violence and Misconduct Policy and B.401.1 Sexual Violence and Misconduct Procedure (found on Policy page <https://www.capilanou.ca/about-capu/governance/policies/>)

**Emergencies:** Students are expected to familiarise themselves with the emergency policies where appropriate and the emergency procedures posted on the wall of the classroom.

### **DEPARTMENT OR PROGRAM OPERATIONAL DETAILS**

Refer to the following IDEA School of Design policies:

- Academic Performance policy
- Student Code of Conduct
- Plagiarism Policy
- AI Policy