

WD 302 – User Interface Design and Development (4 credits)

Section 1

Semester II 2020-2021

Fundamentals of user interface design and development, including design principles and patterns, designing for different platforms, and use of frameworks and software architectures in user interface development.

Course information

Class meetings	Mondays and Thursdays, 2:00 PM – 3:50 PM, on Zoom
Final exam time	Final exam will be available online during finals week.
Instructor	Tomi Heimonen, Ph.D.
Office location	Science B235
Email	theimone@uwsp.edu
Telephone	(715) 346-4409
Communication	You are encouraged to contact me if you have any questions. When communicating via email, please add “WD 302” in the subject line.
Office hours	Monday through Thursday, 9-10 AM on Zoom. Please see Canvas for details.
Class website	Canvas will be used to distribute course materials, assignments, and grades. Check it regularly to stay informed of changes to class schedules and other important announcements.
Prerequisites	WD 201 – Interaction Design
Textbooks	The following required texts will be used in this course. Both texts are available via Text Rental. <ul style="list-style-type: none">• Alan Cooper, Robert Reimann, David Cronin & Christopher Noessel, <i>About Face: The Essentials of Interaction Design</i>, 4th Edition, John Wiley & Sons, Inc., 2014. ISBN: 978-1-118-76657-6• Jenifer Tidwell, Charles Brewer & Aynne Valencia, <i>Designing Interfaces, 3rd Edition</i>, O’Reilly, 2020. ISBN: 978-1-492-05196-1

Important Note: This syllabus, along with course assignments and due dates, are subject to change. It is the student’s responsibility to check Canvas for corrections or updates to the syllabus. Any changes will be clearly noted in a course announcement or through email.

Course description

The goal of this course is to introduce and apply core concepts, techniques, and tools for designing and developing user interfaces for the Web and mobile. After this course, you will be able to apply these technologies and skills to design and develop usable and accessible user interfaces.

Course learning outcomes

Upon completing this course, students will:

- Be able to describe and apply fundamental concepts and techniques in designing user interfaces (UI), including design patterns, prototyping, UI animations, and front-end frameworks.
- Be able to describe key approaches to handling user inputs, error prevention, responsive screen layouts, and detailed design of UI controls and dialogs for Web and mobile interfaces.
- Demonstrate competency in analyzing, documenting, and communicating the design rationale of UI solutions.
- Demonstrate competency in designing, documenting, and implementing user interfaces utilizing prototyping tools and front-end frameworks.

Course requirements

Completing coursework awards a maximum of 100 points.

Specific coursework requirements and due dates will be announced in class and Canvas, along with further instructions. It is your responsibility to check Canvas for assignments and material distributed in class.

Graded activities

- **Assignments: 30 points.** Each assignment awards points towards the grade as defined in the assignment instructions.
 - Assignments help you familiarize with and practice the concepts, methods and techniques introduced in the readings and other course materials.
 - You must upload solutions to Canvas and be prepared to demonstrate them in class.
- **Course projects: 40 points.** There are four separate course projects.
 - By completing the projects, you will demonstrate your competence in applying the knowledge and skills gained during class to design and implement usable and accessible user interface solutions.
- **Exams and quizzes: 30 points.** Exams and quizzes will be scheduled periodically.
 - Periodic online quizzes and exams assess your ability to describe, explain and apply the key topics and concepts discussed in course materials.
 - Exams and quizzes will cover the assigned readings and content introduced in class.

Software requirements and file storage

There are no specific software requirements for this course. All required software is either installed in the campus computer labs or is freely available online.

Storage media (e.g., flash drive or external hard drive) or cloud-based storage (e.g., OneDrive) will be useful to store and transport the files created during this course.

Grading scale

The final grades will be determined as a percentage of points earned out of 100 points according to the following scale:

Grades	Percentage	Grades	Percentage	Grades	Percentage
A	94.00% – 100.00%	B-	83.99% – 81.00%	D+	70.99% – 68.00%
A-	93.99% – 91.00%	C+	80.99% – 78.00%	D	67.99% – 64.00%
B+	90.99% – 88.00%	C	77.99% – 74.00%	F	< 64%
B	87.99% – 84.00%	C-	73.99% – 71.00%		

The instructor reserves the right to revise the grade cutoffs to be more generous if necessary, based on overall class performance.

Viewing grades in Canvas

Points you receive for graded activities will be posted to Canvas. Online grades are updated once a grading session has been completed – typically within a week following the completion of an activity. You will see a visual indication of new grades in Canvas.

Late policy

Coursework must be submitted by the given deadline or an extension must be requested from the instructor **before the due date**. If you know ahead of time that you will have a legitimate reason for missing a due date, contact the instructor to discuss an extension.

Coursework that is turned in late will receive a 20% reduction in points awarded. **Submissions that are more than 3 days late will receive 0 points.**

The instructor reserves the right to adjust this policy to account for extraordinary situations, such as documented illness or medical emergencies. You are required to inform the instructor as soon as possible of such situations.

Attendance

Attending class will likely be the single most important factor in determining your performance and grade in the course, so plan to attend every class. The relationship between attendance and achievement in education has been extensively documented in peer-reviewed research. **I am not able to re-teach the material to you if you are absent, but you can review the lecture recordings in Canvas or ask a classmate to share notes.**

- **Excused absences:** If you need to miss a class, notify the instructor via email no later than by the morning of the class meeting in question.
 - The following constitute legitimate reasons to be absent from class include for example the following: religious observance, military service obligations, pregnancy, illness, and medical appointments.
 - Documentation is **not required** for absences for the above reasons unless you will end up missing more than two consecutive class meetings.
- Making up missed in-class work, such as exams and assignments, is **allowed only for excused absences**. Coursework needs to be completed within 7 days of the original due date, unless otherwise agreed upon in writing with the instructor.
- In case of extenuating circumstances, such as personal or medical emergencies, you should contact the instructor as soon as possible discuss arrangements for making up missed coursework.
- If you have any questions or concerns regarding this policy, your first point of contact should be the instructor. If you are unable to reach the instructor, or if you are experiencing a personal or medical crisis/emergency, contact the Office of the Dean of Students at dos@uwsp.edu or (715) 346-2611.

Absences due to military service

You will not be penalized for class absence due to unavoidable or legitimate required military obligations, or medical appointments at a VA facility, not to exceed two (2) weeks unless special permission is granted by the instructor. You are responsible for notifying faculty members of such circumstances as far in advance as possible and for providing documentation to the Office of the Dean of Students to verify the reason for the absence. The faculty member is responsible to provide reasonable accommodations or opportunities to make up exams or other course assignments that have an impact on the course grade. For absences due to being deployed for active duty, please refer to the [Military Call-Up Instructions for Students](#).

Other policies

Face coverings

At all UW-Stevens Point campus locations, the wearing of face coverings is mandatory in all buildings, including classrooms, laboratories, studios, and other instructional spaces. Any student with a condition that impacts their use of a face covering should contact the Disability and Assistive Technology Center to discuss accommodations in classes. Please note that unless everyone is wearing a face covering, in-person classes cannot take place. This is university policy and not up to the discretion of individual instructors. Failure to adhere to this requirement could result in formal withdrawal from the course.

COVID-19 precautions

- Please monitor your own health each day using [this screening tool](#). If you are not feeling well or believe you have been exposed to COVID-19, do not come to class; email your instructor and contact Student Health Service (715-346-4646).
 - As with any type of absence, students are expected to communicate their need to be absent and complete the course requirements as outlined in the syllabus.
- Maintain a minimum of 6 feet of physical distance from others whenever possible.
- Do not congregate in groups before or after class; stagger your arrival and departure from the classroom, lab, or meeting room.
- Wash your hands or use appropriate hand sanitizer regularly and avoid touching your face.
- Please maintain these same healthy practices outside the classroom.

Teamwork

Some of the coursework activities will be completed in teams of 2-3 students. Each member of the group is responsible for completing the assigned work to the best of their ability.

For each coursework activity carried out as a group, the groups are required to submit a work plan with the instructor. The work plan details the responsibilities of each group member in completing the coursework. The work plan may be used as the basis for grading and conflict resolution.

Dropping/withdrawing from the course

It is the student's responsibility to understand when they need to consider un-enrolling from a course. Refer to the [Academic Calendar](#) for dates and deadlines for registration. After this period, a serious and compelling reason is required to drop from the course. Serious and compelling reasons include, but are not limited to, the following: documented and severe physical/mental illness/injury to the student or student's family. Please consult the instructor at the earliest opportunity to discuss the need to drop the course after the mandated deadline.

Incomplete policy

Under emergency/special circumstances, students may petition for an incomplete grade. An incomplete will only be assigned if inability to complete the coursework was due to a documented illness/injury or other circumstance beyond the student's control. All incomplete work must be completed by the end of Semester I 2021-2022.

Nondiscrimination

You may be asked to review and provide feedback on the work created by your peers. When doing so, please remember that the objective is to critique the work, not the person.

It is the policy of the University of Wisconsin-Stevens Point to:

Foster an environment of respect for the dignity and worth of all students, employees, and guests of the university; Provide an environment which is conducive to the free and open exchange of ideas; and Strive to eliminate bias, prejudice, discrimination, and harassment in all forms and manifestations.

Discrimination based on an individual's age, race, color, religion, sex, gender identity or expression, national origin, ancestry, marital status, pregnancy, parental status, sexual orientation, disability, political affiliation, arrest or conviction record, membership in the National Guard, state defense force or any other reserve component of the military forces of the United States or this state, or other protected class status is demeaning to all students, employees, and guests; impairs the process of education; and violates individual rights.

Accommodations

UWSP is committed to providing reasonable and appropriate accommodations to students with disabilities and temporary impairments. If you have a disability or acquire a condition during the semester where you need assistance, please contact the Disability and Assistive Technology Center on the 6th floor of Albertson Hall as soon as possible. DATC can be reached at (715) 346-3365 or DATC@uwsp.edu

Academic honesty and integrity

As a student in this course and at this university, you are expected to maintain a high degree of professionalism, commitment to active learning and participation, and integrity in your behavior in and out of the classroom.

UWSP 14.01 Statement of principles

The board of regents, administrators, faculty, academic staff and students of the university of Wisconsin system believe that academic honesty and integrity are fundamental to the mission of higher education and of the university of Wisconsin system. The university has a responsibility to promote academic honesty and integrity and to develop procedures to deal effectively with instances of academic dishonesty. Students are responsible for the honest completion and representation of their work, for the appropriate citation of sources, and for respect of others' academic endeavors. Students who violate these standards must be confronted and must accept the consequences of their actions.

UWSP 14.03 Academic misconduct subject to disciplinary action

- (1) Academic misconduct is an act in which a student:
 - a. Seeks to claim credit for the work or efforts of another without authorization or citation;
 - b. Uses unauthorized materials or fabricated data in any academic exercise;
 - c. Forges or falsifies academic documents or records;
 - d. Intentionally impedes or damages the academic work of others;
 - e. Engages in conduct aimed at making false representation of a student's academic performance; or
 - f. Assists other students in any of these acts.
- (2) Examples of academic misconduct include, but are not limited to:
 - a. cheating on an examination;
 - b. collaborating with others in work to be presented, contrary to the stated rules of the course;
 - c. submitting a paper or assignment as one's own work when a part or all of the paper or assignment is the work of another;
 - d. submitting a paper or assignment that contains ideas or research of others without appropriately identifying the sources of those ideas;
 - e. stealing examinations or course materials;
 - f. submitting, if contrary to the rules of a course, work previously presented in another course;
 - g. tampering with the laboratory experiment or computer program of another student;
 - h. knowingly and intentionally assisting another student in any of the above, including assistance in an arrangement whereby any work, classroom performance, examination or other activity is submitted or performed by a person other than the student under whose name the work is submitted or performed.

Use of third-party content and work previously presented in another course

Specific allowances for using content created by others are explained in the coursework instructions. Standard citation and acknowledgment practices apply when using third party content, such as text, images, video, and program code. If in doubt, consult the instructor in advance.

Submitting work previously presented in other courses is not allowed, unless approved by the instructor in writing.

Tentative course schedule

Schedule is subject to change.

<i>Week</i>	<i>Topics</i>	<i>Coursework due</i>
1	Syllabus review and course introduction Review of key interaction design techniques	
2	Prototyping user interfaces – overview of tools Design values, principles, and patterns	
3	Designing for differing levels of ability and experience Designing help and feedback in the UI	Assignment 1
4	Designing functional animations	Quiz 1 (Canvas) Assignment 2
5	Prototyping functional animations and animated transitions	Design project 1
6	Designing the details: UI paradigms, idioms, and affordances Designing the details: error prevention, undo/redo, informing users' decisions	Assignment 3
7	Visual design principles in UI design Applying a visual design language	
8	UI design for the Web	Design project 2
9	Documenting UI designs: living style guides	Midterm availability ends (Canvas) Assignment 4
10	Designing and implementing accessible UIs	
11	Front-end frameworks for the Web	Assignment 5
12	UI design for mobile devices	Quiz 2 (Canvas) Assignment 6
13	Prototyping mobile interactions	Assignment 7
14	Responsive design	Assignment 8
15	Project 4 presentations	Project 3 due
16	Final exam period	Final exam (Canvas)

Important Note: Refer to Canvas for specific due dates for coursework. If you have any questions, please contact the instructor.