# **WD 100 – Innovation for People and Computers (3 credits)**

Introduction to the field of human-computer interaction (HCI) and the innovative process. Includes current and historical aspects of HCI with an emphasis on psychology and sociology in an increasingly technology-driven society.

# **Course information**

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| **Class meetings** | Thursdays 4:00 - 5:15 pm; online on Tuesdays |
| **Instructor** | Kate Kaster |
| **Office location** | B348, Science Building |
| **Email** | kkaster@uwsp.edu |
| **Communication** | You are encouraged to contact me if you have any questions. When communicating via email, please add “WD 100” to the subject line. |
| **Office hours** | After class on Thursdays |
| **Class website** | [https://www.uwsp.edu/canvas/Pages/default.aspx](https://www3.uwsp.edu/canvas/Pages/default.aspx)  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** | There are no prerequisites for this course. |
| **Textbooks** | The following required textbooks are available at Text Rental.   * Don Norman: *The Design of Everyday Things, Revised and Expanded Edition*, Basic Books, 2013. ISBN: 978-0-465-05065-9 * Jenny Preece, Yvonne Rogers and Helen Sharp: *Interaction Design: Beyond Human-Computer Interaction*, Wiley, 4th edition. ISBN: 978-1-119-02075-2 |

**Important:** 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 class, in a course announcement and/or through email.

# **Course description**

WD 100 is a foundational course in the Web Development (WD) major (formerly Human-Technology Interaction). This course explores the creation of innovative products, technologies and services through a survey of topics in human-computer interaction (HCI) and a hands-on innovation project. We will examine the human-centered design process as foundation for successful innovation, including the understanding of users’ characteristics, needs, and goals, and the communication of design solutions.

By the end of the semester, you will be able to:

* Develop ideas for improving and/or creating a new service based on identified user needs.
* Turn your ideas into a user-focused, innovative product concept that considers human capabilities, limitations and ethical challenges in interaction design.
* Demonstrate your product concept to your peers and provide constructive feedback on the designs of other students.

# **Course learning outcomes**

**Course objectives**

Upon completing this course, you will have:

* Summarized key developments in interactive computing technology and their effect on how people interact with technology
* Identified key characteristics of human cognition, memory and perception that affect interaction design
* Explained how human abilities and disabilities affect how people use technology
* Described key legal and ethical issues related to the design of interactive technologies
* Developed and documented ideas for innovative products and services

# **Course requirements**

Completing coursework awards a maximum total of 100 points.

Specific requirements for each graded course activity will be announced separately in Canvas.

## **Graded activities**

* **Assignments:** 2 Assignments award a **total** of **20 points** (10 points each).
  + Each course assignment will be valued separately as designated in its documentation.
  + Assignments are designed to help you familiarize with and practice the concepts, methods and techniques introduced in class materials.
  + Unless teamwork is specifically permitted in coursework instructions, you are required to complete the assignments yourself without outside assistance.
* **Course project:** The course project awards a **total** of **35 points**.
  + - (10 points initial checkpoint, 15 final project, 10 points final presentation)
  + By completing the project, you will demonstrate your competence in applying the knowledge and skills gained during class to ideate and design an innovative product or service concept that addresses specific user needs.
* **Exams and quizzes:** Online quizzes and exams award a **total** of **45 points** (15 points each).
  + Online quizzes and exams will be scheduled periodically to assess your understanding of the course materials.
  + Exams and quizzes will cover the assigned textbook readings and content introduced in course materials.

## **Viewing grades in Canvas**

Points you receive for graded activities will be posted to the Canvas Grade Book. Online grades are updated once a grading session has been completed – typically within 4-5 work days following the completion of an activity. You will see a visual indication of new grades in Canvas.

## **Software and hardware requirements**

There are no specific software requirements on this course. You may find it more convenient to utilize your own desktop or laptop computer than competing coursework in public computer labs. Refer to UWSP Information Technology for recommended computer configurations: [https://www.uwsp.edu/infotech/Pages/Purchasing/Recommended-Windows-Laptop-and-Apple-MacBook-Configurations.aspx](https://www3.uwsp.edu/infotech/Pages/Purchasing/Recommended-Windows-Laptop-and-Apple-MacBook-Configurations.aspx).

The course is offered fully online and a high-speed internet connection is needed to access course materials in Canvas and on the Web.

# **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.

# **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/participation policy**

Active participation in the course will likely be the single most important factor in determining your performance and grade, so plan to complete all assigned course activities in a timely fashion.

* If you are unable to participate in required course activities for an extended period of time due to religious observance, military service obligations, pregnancy, illness or medical appointments, notify the instructor via email in advance as soon as practical.
* Documentation is **not required** unless you are unable to participate in class activities for more than one (1) week.
* 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, you should contact the Office of the Dean of Students at [dos@uwsp.edu](mailto: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](https://www3.uwsp.edu/veteran-services/Pages/Call-Up-Guidelines.aspx).

# **Other policies**

## **Submitting coursework**

All coursework must be submitted **electronically through Canvas**, unless otherwise instructed. When working in groups, for grading purposes each group member must submit the coursework to Canvas, unless otherwise instructed.

## **Teamwork**

Some of the coursework activities will be completed in teams of 3-4 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.

## **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.

## **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 [UWSP Academic Calendar](https://www3.uwsp.edu/regrec/Documents/Academic%20Calendar%202018-19.pdf) 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 course assignments must be completed by the end of Semester II 2018-2019.

# **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](mailto:DATC@uwsp.edu)

# **Student academic disciplinary procedures**

**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:
   1. Seeks to claim credit for the work or efforts of another without authorization or citation;
   2. Uses unauthorized materials or fabricated data in any academic exercise;
   3. Forges or falsifies academic documents or records;
   4. Intentionally impedes or damages the academic work of others;
   5. Engages in conduct aimed at making false representation of a student's academic performance; or
   6. Assists other students in any of these acts.
2. Examples of academic misconduct include, but are not limited to:
   1. cheating on an examination;
   2. collaborating with others in work to be presented, contrary to the stated rules of the course;
   3. 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;
   4. submitting a paper or assignment that contains ideas or research of others without appropriately identifying the sources of those ideas;
   5. stealing examinations or course materials;
   6. submitting, if contrary to the rules of a course, work previously presented in another course;
   7. tampering with the laboratory experiment or computer program of another student;
   8. 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 another course is not allowed, unless approved by the instructor in writing.

Please note that originality checking by Turnitin.com is integrated in Canvas and it may be used to review any writing assignment(s) you submit.

# **Tentative course schedule**

Schedule is subject to change.

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| --- | --- | --- |
| **Week** | **Topics** | **Coursework due** |
| **01** | Syllabus review  Interaction design, usability and user experience | Discussion: Introduction post |
| **02** | Human-centered innovation – designing novel products for people’s needs  History of human-technology interaction | Discussion: Week 1 & 2 |
| **03** | Methods for gathering and recording ideas | Discussion: Week 3 |
| **04** | Methods for innovation and ideation | Assignment 1: Technology use reflection  Discussion: Week 4 |
| **05** | Conceptual models and metaphors – Defining the design concept | Quiz 1 (Canvas)  Discussion: Week 5 |
| **06** | Cognition, memory and thinking – how people understand the world | Discussion: Week 6 |
| **07** | Accessibility – making technology usable by all  Project check-in / peer review period (Canvas) | Course project: Initial design concept  Discussion: Week 7 |
| **08** | Social interaction | Midterm exam (Canvas)  Discussion: Week 8 |
| **09** | Emotional interaction | Discussion: Week 9 |
| **10** | Interaction types – how people interact with technology | Assignment 2: Designing for people with disabilities  Discussion: Week 10 |
| **11** | Interface types – how products present themselves to users | Discussion: Week 11 |
| **12** | How innovation is regulated – Intellectual property and licensing | Discussion: Week 12 |
| **13** | Ethical aspects in technology design | Discussion: Week 13 |
| **14** | TBA | Course project: Final design concept  Discussion: Week 14 |
| **15** | Project peer review period (Canvas) | Discussion: Reflection  Project Presentation |
| **16** | **Final exam period** | Final Quiz (Canvas) |

**Important Note:** Refer to the Canvas course calendar and dropbox details for specific due dates for coursework. If you have any questions, please contact the instructor.