Course Syllabus

# Course Name

Web Interface & Usability

# Contact Information

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| Catalog Course Code: | WDD 141 |
| Three-Letter Course Abbreviation: | WIU |
| Instructor: | Michelle Coutinho |
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# Course Description

The Web Interface and Usability course teaches students the concepts and strategies needed to create successful web interfaces. In this course, students examine the foundation of creating logical, intuitive, and clear web interfaces used by companies worldwide. This course examines design principles relating from usability, visualization, and functionality constructs.

# Course Materials

* Textbook: Designing Interfaces by Jenifer Tidwell (2nd edition)
* Laptop
* Sketch pad
* Photoshop or Illustrator

# Course Objectives

Through the various components of study and application, students will realize these objectives by completing the following milestones:

* Apply Usability Principles to interface designs
  + Learn the five usability principles by Jakob Neilsen
  + Understand how they can be used to create more intuitive, usable interfaces
* Apply Interaction Design Principles to interface designs
  + Learn the six interactive design principles by Donald Norman
  + Understand how they can be used to create more intuitive, usable interactions
* Understand Information Architecture
  + Learn how to chunk content into small pieces of information for user comprehension
  + Organize the information to be presented and learned as parts of a process
  + Connect the information through navigation cues to support users goals and tasks
* Design for various types of interfaces
  + Identify the most common types of interfaces and what they consist of
  + Understand how each type of interface supports its main intent
* Design for a Process
  + Identify the various micro tasks that make up any single process
  + Understand how to reduce visual clutter to highlight the main intent of each screen
  + Learn to omit “nice-to-have” features from the various interfaces used in a process
* Utilize Visual Hierarchy
  + Learn what a usable visual hierarchy consists of
  + Understand the need for effective visual hierarchy to promote scanning content
* Utilize Visual Flow
  + Learn what a usable visual flow consists of
  + Understand the need for effective visual flow to support a page’s main intent
* Utilize Design Patterns
  + Learn what design patterns are, and their origination
  + Understand design patterns as a way to improve users habits, intuition & interactions
* Leverage User Behavior patterns
  + Identify the various design patterns available
  + Understand how, what, why and when to support user behavior patterns to create more usable interfaces
* Leverage Information Architecture and Navigation design patterns
  + Identify the various design patterns available
  + Understand how, what, why and when to use Information Architecture and Navigation design patterns to create more usable interfaces
* Leverage Page Layout and Interactivity design patterns
  + Identify the various design patterns available
  + Understand how, what, why and when to use page layout and interactivity design patterns to create more usable interfaces
* Leverage Complex Data design patterns
  + Identify the various design patterns available
  + Understand how, what, why and when to use Complex Data design patterns to create more usable interfaces
* Leverage Web Form design patterns
  + Identify the various design patterns available
  + Understand how, what, why and when to use Web Form design patterns to create more usable interfaces
* Leverage Editor design patterns
  + Identify the various design patterns available
  + Understand how, what, why and when to use Editor design patterns to create more usable interfaces

# Course Outcomes

Upon successful completion of this course, students will be able to:

* Apply the principles of usability and interaction design when creating interfaces
* Structure the information architecture of a web site or application
* Design for various types of interfaces
* Design the various interfaces that create a users process when accomplishing a goal or task
* Utilize effective visual hierarchy and visual flow to support a users process
* Leverage appropriate design patterns to improve the usability of all interfaces created

# General Education Component

Web interface and Usability introduces students to usability, interaction design, fundamental design principles, and interface design patterns that are currently used in the web industry. General Education classes that precede WIU provide a solid base for the specific knowledge students will gain in this class. Being able to organize ideas and present those ideas to a client or production team is vital in this collaborative industry. A firm grasp of design skills help students approach various design solutions, while clear communication between team members will help to ensure that future production processes will be a cohesive, well planned event. Computer competency is a necessary skill when working with the ever-changing technologies of our web industry.

# Degree Connection

Building upon principles learned in DCG and ACG, students will gain skills that will serve them beyond the WIU course. Understanding and combining usability and interaction design principles with design patterns transcends standards based web design into the web development classes. Knowing how to make interfaces that are more usable will help students successfully build websites or web applications for the betterment of our future web. Students will be able to translate the knowledge they have of usability, interaction design and design patterns into the development of more usable, highly functioning web solutions used today. In addition, the WSP, DFP and Final Project courses will require students to use the knowledge gained in WIU to create a successful user experience.

# Industry Connection

Although we are all familiar with the spectacular array of flash based websites, chock full of animations and sound, the ability to create more usable and intuitive interfaces that are specifically designed to support the goals and expectations of not only your client, but also your users, will make you a highly sought-after designer. Being able to execute the needs and wants of both users and stakeholder’s visions is the hallmark of a very employable designer. Understanding how each individual interface will work to tie the whole website or application together will make you a great designer. Supporting the needs, wants, expectations and tolerance of clients and users, will make you the person every web firm will want to have on their team. No matter what path you decide to follow, the skills learned in WIU will separate you from the novice web designers and define you as a professional.

# Research Component

There are thousands of different websites and applications out there on the World Wide Web. How do you determine which type of interface is most appropriate for the subject matter? You obviously can’t test them all, and everyone you ask will have a different opinion of what they like or dislike about a websites design. It’s up to you to be able to research the type of users who will be using your site, their habits when engaging interfaces, and the various methodologies for implementing design solutions that are best suited for your requirements. There are many books and online resources available to you now, more than ever before. However, the most important research is observation. Start by talking to your users—those people who you have identified to most likely use your website or application. Find out what they see when they use your site, by watching your users in action. Many times the best approach towards designing an interface that is intuitive and easy to use, from the users perspective, is by seeing it through their eyes. Use proven user-testing methods like “think-out loud” protocols and “contextual inquiry” to steer the decision making process.

# Additional Resources

The following books are great resources to further your education in the web interface design industry.

* *“The Design of Everyday Things”* by Donald Norman
* *“Designing the Obvious*” by Robert Hoekman Jr.
* *“Web Form Design: Filling in the Blanks”* by Luke Wroblewski
* *“A Project Guide to UX Design*” by Russ Unger and Carolyn Chandler
* *“Web Anatomy: Introduction to Interaction Design Frameworks”* by Jared Spool and Robert Hoekman Jr.

# Topics Covered

* Usability Principles
* Interaction Design Principles
* Various Interface Types
* Fundamental Design Principles
* Designing with intent
* Design Patterns

# Learning Activities

## Reading Assignments

Students will read “*Designing Interfaces*” by Jenifer Tidwell to supplement the material presented during lecture. The chapters in the book have been selected to closely follow the subjects covered in the course.

## Projects

Students will have weekly homework assignments ranging from usability to interface design. Students will learn how to evaluate products that we use in our everyday, to assess how easy, efficient and enjoyable they are to use, as a measure of usability. Further students will demonstrate their understanding of content organization and creating a hierarchy or taxonomy for information.

Students should take their own ongoing journal of notes throughout the class recording the intricacies associated with effective interface design that they have discovered through the furthered understanding of the curriculum.

Students will leverage this understanding as they approach the design of interfaces. They will be responsible for utilizing effective usability principles, interaction design principles and the appropriate use of interface design patterns to create more usable, intuitive interfaces that will be viewable on varying devices and screen resolutions.

## Lab Projects

Students will complete a lab exercises that ask them to identify how the principles of usability have been incorporated *into* the design of any tangible artifact we use in our everyday.

Students then demonstrate their acquired knowledge of Information Architecture for content organization to present large amounts of information efficiently and intuitively to users. Their proposed organization strategy will be presented through their creation of a “site diagram”. This diagram presents the hierarchy of required content and how users will navigate the content.

Lastly, remaining week exercises will see students developing a series of interfaces for a “proposed” website. Each interface will require the student to implement his or her acquired knowledge of the various interface design patterns learned throughout the course.

# Grade Weights

GPS 10%

Assessments 6%

Build Labs 1-6 60%

B7 & B8 24%

Total 100%

# Strategies for Successful Learning

* As with any class, taking notes, asking questions, and participating during lecture are invaluable learning tools for every student.
* Students need to begin to look at the real (not perceived or digital) world and how we interact with everyday things
* Students will greatly benefit from reading the textbook chapters that correspond to each lecture, in order to gain a better understanding for the various design patterns presented each lecture.
* Students are encouraged to find appropriate, unique methods for presenting content requirements within the interfaces they create.
* Students are encouraged to thoroughly examine instructions, functional specifications documents, and grading rubrics that correspond to each lab exercise.

See the [Grading Rubric](https://docs.google.com/spreadsheet/ccc?key=0AhFLFEj_TAlgdFR4bzlkb0NYMVVSNTFYU1BkV3p6Qmc&usp=drive_web#gid=25) for a breakdown of each lab’s requirements.