



School of Engineering  
*Information  
Technology Program*

## **ITP 302: Advanced Web Publishing**

**Units: 4**

**Fall 2019 – T/Th – 10:00 AM - 11:50 AM**

**Location:** VPD 106

**Instructor:** Nayeon Kim

**Office:** OHE 530D

**Office Hours:** See course website.

**Contact Info:** All general course assignments/questions should be asked on Piazza (every student will receive an invitation at the start of the semester).

Personal questions should be directed via email at [nayeonki@usc.edu](mailto:nayeonki@usc.edu)

**Teaching Assistant:**

**Office:** See course Website.

**Office Hours:** See course website.

**Contact Info:** See course website.

**IT Help:** Provided by Viterbi IT

**Hours of Service:** 8am – 5pm, Mon-Fri

**Contact Info:** [engrhelp@usc.edu](mailto:engrhelp@usc.edu)

**Course Website:** <http://itpwebdev.com/itp302>

## Course Description

This course is intended for students who are fluent in the fundamentals of HTML and CSS and are prepared to learn new and upcoming tools and technologies in Web publishing such as CSS pre-processors (e.g. Sass, Less, etc), CSS frameworks (e.g. Bootstrap), static site generators (e.g. Jekyll, Hugo, etc), content management systems (e.g. WordPress) and other miscellaneous developments in HTML and CSS. In addition to creating static Websites with these new tools and technologies, students will learn to evaluate them and formulate professional opinions on which set of tools/technologies is best fit for a specific Web project. Furthermore, students will also analyze and implement trending Web design patterns such as responsive Web design and Web accessibility.

## Learning Objectives

- Implement new and upcoming web publishing tools and technologies such as CSS pre-processors, CSS frameworks, static site generators and content management systems.
- Analyze trending web design patterns such as responsive web design and web accessibility and implement them by writing HTML and CSS.
- Evaluate current web publishing tools and technologies and select the best tools and technologies needed for a specific web project.

**Prerequisite(s):** ITP 104

## Course Notes

All course material (lecture notes, slides, assignments, labs, resources, etc.) are posted weekly on the course website at <http://itpwebdev.com/itp-302/>. In this course, Blackboard is only used for students to obtain attendance credit and view their grades. All other pertinent course information is found on the course website.

## Technological Proficiency and Hardware/Software Required

Students should have access to their own computer running either Windows or MacOS and should be familiar with the basic operation of their computer. Loaner laptops are available in ITP's main office (OHE 412) for students to check out if they have no access to their own laptop.

Required software (all available at no cost):

- Sublime Text 3 (or similar text editor)
- FileZilla
- MAMP

## Required Readings and Supplementary Materials

Friedman, Vitaly, et al. *Smashing Book #5 Real-Life Responsive Web Design*. This book can be purchased for \$29 (Hardcover) or \$19 (eBook) at: <https://www.smashingmagazine.com/printed-books/smashing-book-5/>

Williams, Brad and David Damstra, and Hal Stern. *Professional WordPress: Design and Development*. ISBN-10: 1118987241

Additional readings such as excerpts from other books or online articles will be provided on the course website.

## Grading Breakdown

| Item              | % of Grade |
|-------------------|------------|
| In-class Activity | 10         |
| Assignments       | 30         |
| Midterm Exam      | 25         |
| Final Project     | 35         |
|                   |            |
| <b>Total</b>      | <b>100</b> |

## Grading Scale

Course final grades will be determined using the following scale

|    |              |
|----|--------------|
| A  | 93-100       |
| A- | 90-92        |
| B+ | 87-89        |
| B  | 83-86        |
| B- | 80-82        |
| C+ | 77-79        |
| C  | 73-76        |
| C- | 70-72        |
| D+ | 67-69        |
| D  | 63-66        |
| D- | 60-62        |
| F  | 59 and below |

Percentages will be rounded to nearest tenth. For instance, 89.5% is an A-, but 89.4% is a B+. Under this policy, an 89.49999% would not be an A-.

Per the University's policy, students taking the class as a Pass/No Pass must earn a of 70% or higher in order to receive a Pass.

## In-class Activity Policy

Students are expected to write code along with the instructor during the majority of time in lecture. During the lecture, students may be asked to do one or two small exercises on their own. These are meant to reinforce the material taught in class and will be graded as pass/no pass. Students will submit in-class activities to the USC server (set up and process covered in week 1).

## Assignment Submission Policy

- Usually one assignment is assigned every week. All assignment requirements and their deadlines are listed on the course website. It is the students' responsibility to read and adhere to requirements and deadlines.
- To submit an assignment, students must upload their completed work on the USC server as defined by the instructor (covered in class during week 1). Only files on the server are graded. Students **may not** submit assignments in any other way (e.g. email, Blackboard, Google Drive, etc.).
- Students may use up to **three (3) extensions** on any assignment. An extension extends the deadline of any assignment up to for an extra 72 hours. Only one extension per lab or assignment. Extensions can be requested via a Google Form posted on the class website and must be requested **before the deadline of the assignment**.
- Any assignment turned in after the deadline without an extension results in a score of **zero (0)**. **No late penalty exists in this course.**

## Grading Timeline

Assignments will be graded within ten days after the due date.

## Grading Issues

Students will have seven days after graded feedback is given to contest scores (e.g. assignments and exams). After seven days, scores will not be changed.

## Midterm Exam

There is one midterm exam in this course. No make-up exams (except for documented medical or family emergencies) will be offered. Final projects take place of the final exam.

## Final Project Details

### Schedule

Week 11 - Submit project proposal & wireframes

Week 13 - Milestone I: Homepage

Week 15 – Milestone II: Two other pages

Week 16 – Final Project due

### Basic Requirements

The final project must be a fully functioning website utilizing the latest tools and technologies of web publishing taught in this course. The topic of the site is up to the student but must use certain tools such as a CSS pre-processor and CSS Grid or Flexbox for the general page layout. Websites must also be fully responsive and adapt to multiple screen sizes. It must also be accessible and be WCAG2.0 compliant. Lastly, students must build their website using either a static site generator or a content management system with sufficient amount of customization. A project must represent the student's sole effort; online tutorials or class examples may be consulted, but they must be improved upon and noted in the final documentation. Failure to note and provided links to any reference material will be considered cheating.

### Grading Rubric

| Item  | Points     |
|---|------------|
| Final Project Documentation (Report on project) | 5          |
| Proper use of Sass                              | 10         |
| Proper use of CSS Grid or Flexbox (or both)     | 15         |
| Fully Responsive across all major screen sizes  | 20         |
| Accessible – WCAG2.0 compliant                  | 10         |
| Proper use of static site generator or CMS      | 30         |
| General code correctness and style              | 10         |
| <b>Total</b>                                    | <b>100</b> |

## Adding the Course After the First Day

The University allows students to add courses until the end of week 3. However, it is the responsibility of students who add after the first class to **immediately notify the instructor** and make a plan to catch up on any missed work.

## Plagiarism and Individual Work Policy

It is okay to discuss solutions to specific problems with other students, but it is not okay to look through another student's code. It does not matter if this code is online or from a student you know, it is cheating. Do not share your code with anyone else in this or a future section of the course, as allowing someone else to copy your code carries the same penalty as copying the code yourself.

**Course Material Policy**

Do not reproduce, distribute, or post any lecture material, assignments, assignment solutions, or exams publicly without written consent of the instructor. You may take notes and make copies of course materials for your own use. You may not post course materials on sites like CourseHero. Doing so is a copyright violation and in some cases may also be an academic integrity violation that will be dealt with accordingly.

## Course Schedule: A Weekly Breakdown

|               | Topics/Daily Activities   | Readings  | Assignments                                  |
|---------------|---|---|--|
| <b>Week 1</b> | Course Overview,<br>HTML & CSS Review <ul style="list-style-type: none"> <li>Page Layout using Float and percentage widths</li> <li>Positions</li> <li>Transition, Transform</li> </ul> CSS Animations with Keyframes | Slides provided by instructor   | A1: Storefront Page (Due Week 2)             |
| <b>Week 2</b> | CSS Pre-processors <ul style="list-style-type: none"> <li>Sass</li> </ul> CSS Specificity, Inheritance  | <i>Sass Official Documentation</i> – Sass Basics<br><i>CSS Specificity Wars</i> (online article)                    | A2: Web Experience Page (Due Week 3)         |
| <b>Week 3</b> | Responsive Web Design Techniques and Patterns <ul style="list-style-type: none"> <li>@media queries</li> <li>Min/max-width</li> <li>em/rem units</li> <li>Viewport units</li> </ul>                                   | <i>Smashing: Responsive Designer's Workflow</i><br><br><i>Smashing: Responsive Design Patterns &amp; Components</i> | A3: Responsive Film Page (Due Week 4)        |
| <b>Week 4</b> | Recent CSS Grid Developments <ul style="list-style-type: none"> <li>Flexbox</li> <li>CSS Grid</li> </ul> CSS Frameworks <ul style="list-style-type: none"> <li>Bootstrap</li> </ul>                                   | <i>Smashing: Building Responsive Components with Flexbox</i>  | A4: Library Page (Due Week 5)                |
| <b>Week 5</b> | Web Accessibility <ul style="list-style-type: none"> <li>WCAG Standards</li> <li>Laws &amp; Policies</li> <li>Best Practices</li> </ul>   | <i>Google Developers / Web Accessibility</i> (online article)   | A5: Rewrite Web Experience Page (Due Week 6) |
| <b>Week 6</b> | <b>Midterm Exam</b> <ul style="list-style-type: none"> <li>Part I: Written</li> <li>Part II: Practical</li> </ul>   | -   | -  |
| <b>Week 7</b> | Static site generators <ul style="list-style-type: none"> <li>Command Line Basics</li> <li>Jekyll Setup</li> <li>Liquid Templating</li> <li>Front Matter</li> <li>Layouts</li> </ul>                                  | <i>Jekyll Documentation: Step by Step Tutorial</i> (1-4)  | A6: Jekyll Template (Due Week 8)             |
| <b>Week 8</b> | Static site generators continued <ul style="list-style-type: none"> <li>Includes</li> <li>Data Files</li> <li>Assets</li> <li>Blogging</li> <li>Collections</li> <li>Deployment</li> </ul>                            | <i>Jekyll Documentation: Step by Step Tutorial</i> (5-10)   | A7: My Blog (Due Week 9)                     |
| <b>Week 9</b> | Content Manage Systems <ul style="list-style-type: none"> <li>Overview</li> </ul> WordPress <ul style="list-style-type: none"> <li>Local Installation</li> </ul>  | <i>Professional WordPress</i> Ch. 1-4   | A8: WordPress Treasure Hunt (Due Week 10)    |

|                |  |   |   |
|----------------|--|---|---|
|                | <ul style="list-style-type: none"> <li>• Database Configuration</li> <li>• Code Overview</li> <li>• Tour of the Core</li> </ul>    |   |   |
| <b>Week 10</b> | WordPress: The Loop<br>WordPress: Data Management  | <i>Professional WordPress</i> Ch. 5-6         | A9: Final Project Proposal<br>(Due Week 11)         |
| <b>Week 11</b> | WordPress: Theme Development   | <i>Professional WordPress</i> Ch. 9           | A10: Milestone I: Homepage<br>(Due Week 13)         |
| <b>Week 12</b> | Securing WordPress   | <i>Professional WordPress</i> Ch. 13          |   |
| <b>Week 13</b> | WordPress: Multisite   | <i>Professional WordPress</i> Ch. 10          | A10: Milestone II: Two other pages<br>(Due Week 15) |
| <b>Week 14</b> | Webmaster Tools <ul style="list-style-type: none"> <li>• Google Analytics</li> <li>• Search Engine Optimization</li> </ul>         | <i>Google Analytics for Beginners</i> Handout |   |
| <b>Week 15</b> | Even more recent developments <ul style="list-style-type: none"> <li>• CSS Custom Properties</li> <li>• Service Workers</li> </ul> |   |   |
| <b>FINAL</b>   | <b>Final Project due 11:59pm on day of Final Exam.</b><br>(See <a href="#">Schedule of Classes</a> ).                              |   |   |

## Statement on Academic Conduct and Support Systems

### Academic Conduct

Plagiarism – presenting someone else’s ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in *SCampus* in Part B, Section 11, “Behavior Violating University Standards” <https://policy.usc.edu/scampus-part-b/>. Other forms of academic dishonesty are equally unacceptable. See additional information in *SCampus* and university policies on scientific misconduct, <http://policy.usc.edu/scientific-misconduct>.

### Support Systems

*Student Counseling Services (SCS) - (213) 740-7711 – 24/7 on call*

Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention. <https://engemannshc.usc.edu/counseling/>

*National Suicide Prevention Lifeline - 1-800-273-8255*

Provides free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week. <http://www.suicidepreventionlifeline.org>

*Relationship and Sexual Violence Prevention Services (RSVP) - (213) 740-4900 - 24/7 on call*

Free and confidential therapy services, workshops, and training for situations related to gender-based harm. <https://engemannshc.usc.edu/rsvp/>

*Sexual Assault Resource Center*

For more information about how to get help or help a survivor, rights, reporting options, and additional resources, visit the website: <http://sarc.usc.edu/>

*Office of Equity and Diversity (OED)/Title IX Compliance – (213) 740-5086*

Works with faculty, staff, visitors, applicants, and students around issues of protected class. <https://equity.usc.edu/>

*Bias Assessment Response and Support*

Incidents of bias, hate crimes and microaggressions need to be reported allowing for appropriate investigation and response. <https://studentaffairs.usc.edu/bias-assessment-response-support/>

*The Office of Disability Services and Programs*

Provides certification for students with disabilities and helps arrange relevant accommodations. <http://dsp.usc.edu>

*Student Support and Advocacy – (213) 821-4710*

Assists students and families in resolving complex issues adversely affecting their success as a student EX: personal, financial, and academic. <https://studentaffairs.usc.edu/ssa/>

*Diversity at USC*

Information on events, programs and training, the Diversity Task Force (including representatives for each school), chronology, participation, and various resources for students. <https://diversity.usc.edu/>

*USC Emergency Information*

Provides safety and other updates, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible, <http://emergency.usc.edu>

*USC Department of Public Safety – 213-740-4321 (UPC) and 323-442-1000 (HSC) for 24-hour emergency assistance or to report a crime.*

Provides overall safety to USC community. <http://dps.usc.edu>