Multimedia Authoring: Web Applications

WRIT 40363.045

TCU

Course & Instructor Information

Course

Class Location & Meetings: Building ###, TR 12:30–1:50 pm CST
Semester/Credits: Fall 2025 (8/18–12/12), 3 credit hours

Instructors

Instructor: Curt Rode, PhD
Office & Office Hours: Scharbauer Hall 2006, by appointment (see calendar below)
Scheduling Calendar: https://calendly.com/c-rode/appointments
Email: c.rode@tcu.edu (preferred method of contact)
Zoom: *Available with scheduled meetings*
Telephone: (817) 257-6983

Final Evaluative Exercise & Important Dates

September 1	Labor Day holiday
October 8	Fall Break begins (classes resume 10/13)
TBD	Last day to withdraw from a class
November 22	Thanksgiving break begins (classes resume 12/1)
December 2	Last day of classes
December 9	Final Evaluative Exercise(11:00-1:40)

Contents

Student Resources & Policy Information

Click or scan the QR code for resources to support you as a TCU student. Please note the sections on Student Access and Accommodation, Academic Conduct & Course Materials Policies, and Emergency Response & TCU Alert. You can also access these resources through TCU Online.

Land Acknowledgment

As a university, we acknowledge the many benefits we have of being in this place. It is a space we share with all living beings, human and non-human. It is an ancient space where others have lived before us. The monument created jointly by TCU and the Wichita and Affiliated Tribes reminds us of our benefits, responsibilities, and relationships. We pause to reflect on its words: *This ancient land, for all our relations*. We respectfully acknowledge all Native American peoples who have lived on this land since time immemorial. TCU especially acknowledges and pays respect to the Wichita and Affiliated Tribes (*Kitikiti'sh/Kirikirish*), upon whose historical homeland our university is located.

COURSE DESCRIPTION

Official Catalog Description: "Explores the complex relationship between new media, culture, and design, with particular emphasis on the production of mobile applications and eBooks publications. Course emphasizes concepts in rhetoric, multimedia, and authorship in digital environments. Students design and compose a variety of multimedia products incorporating print, image, and other modes. Student cannot receive credit for WRIT 55743 and WRIT 40363."

Semester Course Focus

This section of WRIT 40363 focuses on **web application development** as a tool for creating **public-facing digital arguments** that engage non-academic audiences. Students learn to build accessible, responsive web applications using **HTML, CSS, and JavaScript** while developing skills to communicate complex ideas to diverse public audiences through digital media.

The course emphasizes **hands-on creation** of web projects that translate academic research and critical analysis into engaging, accessible digital experiences for general audiences. Students work with professional tools including VS Code, Git version control, and deployment platforms to create a portfolio of public-facing web applications.

Central to the course is developing **public intellectual skills**—learning to communicate scholarly insights about technology, culture, and society to audiences beyond the university. Through readings examining digital equity and technology's social impact, students create web projects that make academic conversations accessible to broader publics.

Prerequisites & Concurrent Enrollment

There are no prerequisites for this class.

Program and Major Connections

- **Digital Culture and Data Analytics major/minor:** Required courses (selection)
- **Writing & Rhetoric major/minor:** Digital Rhetorics and Design (subcategory)
- **English major/minor:** Elective

Required Textbook

There are no required textbooks for this class. All required readings and resources will be available for free in D2L.

Teaching Methodology

The first third of the course will focus on 1) learning the basics of HTML, CSS, and JS and 2) a sequence of "labs" or minor assignments. The rest of the class will focus on applying those web development skills to web applications relevant to work in the Humanities and Social Sciences. We will provide a blend of lectures, in-class programming demonstrations, guided activities, and one-on-one support.

Learning Outcomes

Learning outcomes are the driving forces of this course: they are the focusing themes that inform everything we do. The learning outcomes listed below are the goals we are working toward that you should meet by the end of WRIT 40363.

Course Learning Outcomes

These two outcomes, particular to this course, shape the work we'll do this semester:

1. Students will use their skill in web development as an exploratory research tool designed to address, but not always answer, important cultural questions.
2. Students will reflect on the limitations of multimodal communication common to the Digital Humanities.

Program and Major Learning Outcomes

These outcomes are particular to the majors/minors in Digital Culture and Data Analytics (DCDA); English; and Writing & Rhetoric:

3. Students will demonstrate an ability to compose digital arguments [DCDA0]
4. Students will analyze how rhetorical acts and texts in various media emerge from or respond to specific cultural discourses and/or relations of power. [WRIT02]

TCU Outcomes: Core Curriculum

WRIT40363 does not currently satisfy an TCU Core Outcomes.

Course Assignments & Final Grade

Assignments

Major Public Projects (3)

Project 1: Public Portfolio Website (Week 6) - Create a professional website that presents your academic work and interests to potential employers, community partners, or public audiences.

Project 2: Public Issue Web Application (Week 12) - Develop an interactive application that addresses a community issue or makes complex information accessible to public audiences.

Project 3: Public Intellectual Platform (Week 16) - Design a comprehensive web application that demonstrates your ability to engage public audiences through digital media on topics you care about.

Lab Assignments (24)

Weekly technical skill-building exercises focused on creating effective public communication through web development, from basic accessibility principles through advanced user engagement features.

Quizzes (3)

Technical knowledge checks ensuring competency in web development skills needed for effective public digital communication.

Public Engagement Discussions (4)

Analysis and reflection on:

- How website design affects public accessibility and engagement
- Digital equity and inclusive design in public-facing sites
- Technology's role in democratic participation and public discourse
- Your development as a public intellectual through digital media

Reflection Essays (3)

Self-assessment essays examining your growth in:

- Technical skills for public communication
- Accessibility and inclusive design practice
- Professional workflow and project management
- Critical analysis of technology's public impact

Grading Philosophy and Policy

In this class, **I won't be grading individual assignments or calculating points/percentages**. Instead, we'll offer lots of feedback without any points or letter associated with it—but along the way I will indicate if you are meeting expectations. In addition to our written feedback, I will indicate if your work on the assignment **Exceeds**, **Meets**, or **Fails to Meet** Expectations. Throughout the semester, you will write **three self-reflection essays** (about a page each) on your development as a learner. On the second and third of these essays, you will indicate the grade you believe you have earned to date in the course. For Reflections 2 and 3, you will be asked to assess yourself in terms of your growth in the following areas:

Coding Competency in HTML, CSS, and JS

Audience Engagement, Accessibility, and User Experience (UX)

Project Design and Planning

Collaboration and Community Support

The grades you argue for your midterm and final semester grades should be expressed as traditional letter grades (A, A-, B+, B, B- and so on). I reserve the right to change your grade, but in general I defer to you as the best judge of your learning.

For more information on the rationale behind this system, I recommend these short, approachable blog posts by Dr. Jesse Stommel: "**Why I Don't Grade**" and "**How to Ungrade**." I am more than willing to supply more detailed pedagogical scholarship on this rationale at your request. The online self-reflection essay documents provide detailed descriptions of how to successfully argue for a grade.

For your reference, the faculty definition of grades, and the letter/percentage system designed to indicate quality of work in this class, is as follows:

Work Quality	Letter Grade	Semester Grade Points (GPA)
Excellent	A	4.00
	A-	3.67
	B+	3.33
Good	B	3.00
	B-	2.67
	C+	2.33
Satisfactory	C	2.00
	C-	1.67
	D+	1.33
Poor	D	1.00
	D-	0.67
Failing	F	0.00

Listed below is a breakdown of course components that will shape and determine your final semester grade, presented in the sequence of appearance in the course:

Course components	Learning Outcomes
Lab Assignments (24)	1, 3
Major Projects (3)	1, 2, 3, 4
Quizzes (3)	1, 3
Threaded Discussions (4)	2, 4
Self-Reflection Essays (3)	2, 4

LO1: Students will use their skill in web development as an exploratory research tool designed to address, but not always answer, important cultural questions.

LO2: Students will reflect on the limitations of multimodal communication common to the Digital Humanities.

LO3: Students will demonstrate an ability to compose digital arguments [DCDA0]

LO4: Students will analyze how rhetorical acts and texts in various media emerge from or respond to specific cultural discourses and/or relations of power. [WRIT02]

LO5: Students will exhibit the ability to use writing to gain and express an understanding of discipline-specific content.

Attendance and Tardiness

In keeping with the "un-grading" policy of the course (see below), I will not take official attendance nor deduct points for missed classes or late arrivals. The class will move quickly, however, so it's your responsibility to check in with me should you miss any course content or instruction. More than most other courses, what I study and practice on a Monday will be essential for what we'll study on Wednesday, etc. (imagine learning multiplication without knowing first how to add). Missing class equals missing important steps in the learning process. A pattern of absences may also affect the case you build for your semester grade.

If for some reason you anticipate being absent, arriving late, or leaving early during a class period, **please let me know beforehand**!

> (*Note:* I do not take attendance, but for the record: because it is considered an infringement on student privacy for faculty to have access to student medical records, faculty cannot accept medical documentation to justify absences. If you have a legitimate reason for your absence and want to provide verification, please access the Absence Documentation Form here.)

Excused Absences or Official University Absences are absences described in the Official University Absence Policy and include the following: Title IX related issues, military leave, holy days, and university related absences. As faculty I may not penalize students for these absences and must allow for the completion of assignments and exams within a reasonable amount of time

after the absences. Beyond these, faculty retain all discretion for consideration of a student's absence, including absences verified by the Dean of Students' Office.

Class Enrichment (i.e Participation and Engagement))

I cannot emphasize this enough: learning any new skill requires an active engagement on the part of the learner. Therefore, class participation is a critical component of the course. While some lecture will be necessary to establish necessary contexts and to propose reading strategies, most of the learning needs to come from lively discussion and a certain degree of daring and play. Get involved early and often. The class will surpass expectations if you do; it will be miserable if you don't.

Late Work

I don't like to allow late work because it can pile up quickly, and it limits our ability as instructors to provide timely feedback. However, I also don't deduct any points for late work. Please contact mebefore the assignment is due if you would like an extension. We're typically happy to give you one. **Understand, though, that a pattern of late or unsubmitted work will compromise the case you build for your semester grade.** Students who expect, for example, an A in the course should receive "Exceeds Expectations" on the majority of the assignments and have no late or missing assignments (unless arrangements are made for an extension).

Safe Zone

Our goal is for each student to feel comfortable and able to connect with course content and classroom discussion. Please know that I welcome, affirm, and celebrate persons in the LGBTQIA communities of Texas Christian University. (LGBTQIA stands for Lesbian, Gay, Bisexual, Transgender, Queer, Intersex, Asexual, Ally). I will not allow homophobic comments in class and will strive to use inclusive language. Please visit http://www.allies.tcu.edu/training.asp for more information.

System Requirements

Throughout the semester, you will be doing a lot of coding in HTML, CSS, and JavaScript. It is your responsibility to ensure that you have the necessary hardware to do this. If you have any technical difficulties, contact me (c.rode@tcu.edu) or IT at least a week before the assignment is due.

Computer: You must have access to a reliable computer and internet connection to take this course, a machine that meets the TCU Online minimum requirements.

TCU Online is required for this class.

Virtual Studio Code is the free tool we'll use to write and edit our code for class.

GitHub is also a free tool we'll use to backup and publish our sites.

Generative Artificial Intelligence (AI) technology (Google Gemini, ChatGPT, etc.) is permitted—and encouraged—for your use in this class provided that you **document**, in detail, any and all uses of the technology through **descriptive notes (# comments)**.

Note: The inappropriate or unauthorized use of AI-generated content may be academic misconduct and/or a violation of discipline-specific professional ethics. Such misuse will be handled according to TCU's Academic Conduct Policy or other relevant policies and may result in sanctions, including failing the course, program dismissal, suspension, or expulsion.

Email: *Only* the official TCU student email address will be used for all course notifications. It is your responsibility to check your TCU email on a regular basis: you should check it daily.

Class Norms & Recordings

I consider our classroom a safe space for people to learn, and I have an obligation to ensure it remains intact. All members of the class are expected to follow rules of common courtesy in person and in all email messages, discussions, or any exchanges on a digital platform related to this class.

Our class sessions are not available for public consumption or circulation beyond the intended uses for this class. Audio, video, or screen recording (including screen shots, snips, grabs, etc.) is prohibited and can result in a failing grade for this course and suspension of access to University Computing Resources. TCU students are prohibited from sharing any portion of course materials (including videos, PowerPoint slides, assignments, or notes) with others, including on social media, without written permission by the course instructors. Be sure to read the full TCU policy.

Of course, if you have accommodations that allow you to make audio recordings, however, please review Student Access and Accommodation and contact me immediately. You can, of course, take good notes. If you cannot attend a class for any reason, you're welcome to contact another classmate to find out what you missed, and you can always set up a one-on-one conference with me if you have questions about the material.

Center for Digital Expression (Scharbauer 2003)

The CDEx is available to students working on new media and digital humanities assignments. The staff is available to help you with your projects. I will refer to the resource sections in the CDEx website (**cdex.tcu.edu**) throughout the course, but you can also view the **weekly schedule** for consultations.

COURSE PLANNING SCHEDULE: FALL 2025

The **course planning schedule** below provides only the "big picture" for the semester. **Updates** to this schedule will be shared **exclusively** through the "Fall 2025 Course" link in D2L.

Be sure to visit the Registrar's Fall 2025 Academic Calendar for details about last days for enrollment, withdrawal, tuition refunds, university closings/holidays, and final exam schedule.

Week 1: Course Introduction & Setup

August 19 (Tue) - Session 1

- Course overview and expectations

- Mini Lecture: "Artificiality of Academic Writing" (15 min)
- What is web development? Frontend vs. backend
- Introduction to the web: browsers, servers, domains
- **Lab 1:** First HTML File & VS Code Workflow (see: LAB01_first_html_vs_code.md)
- EXAMPLE SPOTLIGHT: Wikipedia Accessibility Article – scanability & heading outline; NASA Image of the Day – visual hierarchy & alt text.

August 21 (Thu) - Session 2

- PRE-CLASS VIDEOS: "File Management via GitHub" (15 min) + "VS Code" (8 min)
- Installing and configuring VS Code
- VS Code extensions for web development
- File organization and project structure
- **Lab 2:** Git & GitHub Workflow (see: LAB02_git_github_workflow.md)
- Self Reflection 1 DUE: Thursday 8/21 by 11:30 PM
- Reading Assigned: W3C WAI-ARIA Overview

Week 2: HTML Foundations

August 26 (Tue) - Session 3

- PRE-CLASS VIDEOS: "Reading Gravity" (12 min) + "Writing for the Web" (8 min) + "CRAP Principles" (20 min)
- HTML structure and syntax
- Essential HTML elements: headings, paragraphs, lists
- Semantic HTML and why it matters
- **Lab 3:** Personal Webpage Foundation (see: LAB03_personal_webpage_foundation.md)
- EXAMPLES: W3C WAI Tutorials – landmark usage; MDN HTML guide – semantic section patterns.

August 28 (Thu) - Session 4

- Links, images, and media elements
- HTML forms basics
- Introduction to accessibility (alt text, semantic structure)
- **Lab 4:** Links, Images, and Lists Enhancement (see: LAB04_links_images_lists.md)
- Threaded Discussion 1 Launch: Analyze and discuss 3 websites you use regularly - what works well and what doesn't? Consider accessibility and usability.
- Discussion: ARIA reading discussion - how does accessibility framework connect to the websites you analyzed?

Week 3: More HTML & Intro to CSS

September 2 (Tue) - Session 5

- PRE-CLASS VIDEOS: "CSS with/without" (3 min) + "Intro to CSS" (10 min)
- HTML tables and when to use them
- HTML validation and debugging
- Introduction to CSS: syntax and selectors

- **Lab 5:** Base CSS Foundation (see: LAB05_base_css_foundation.md)
- EXAMPLE SPOTLIGHT: Stripe Press – typography rhythm & whitespace; Smashing Magazine – density trade-offs.

September 4 (Thu) - Session 6

- CSS properties: colors, fonts, spacing
- The box model
- CSS debugging with browser dev tools
- **Lab 6:** CSS Typography & Visual Polish (see: LAB06_css_typography_polish.md)

Week 4: CSS Layout & Design

September 9 (Tue) - Session 7

- PRE-CLASS VIDEO: "UF Design Lecture" (responsive design concepts) (12 min)
- CSS layout: display properties, positioning
- Introduction to Flexbox
- **Lab 7:** Flexbox Layout Systems (see: LAB07_flexbox_layout_systems.md)
- PROJECT 1 ASSIGNED: Personal Portfolio Website (Due Week 6)
- EXAMPLES: CSS-Tricks Guides Index – responsive card grid; GOV.UK Design System – consistent layout + semantics.

September 11 (Thu) - Session 8

- CSS Grid basics
- Combining Flexbox and Grid
- **Lab 8:** Flex to Grid Transition (see: LAB08_flex_to_grid_transition.md)
- Quiz 1: HTML & Basic CSS
- Reading Assigned: "Web Accessibility for Developers" (Chapters 1-2)

Week 5: Responsive Design & Advanced CSS

September 16 (Tue) - Session 9

- Mobile-first responsive design principles
- Media queries and breakpoints
- Responsive images and media
- **Lab 9:** Media Queries Refactor (see: LAB09_media_queries_refactor.md)

September 18 (Thu) - Session 10

- CSS transitions and basic animations
- CSS custom properties (variables)
- **Lab 10:** CSS Animations & Visual Polish (see: LAB10_css_animations_polish.md)
- Threaded Discussion 2 Launch: Mobile vs. desktop web experiences - analyze differences in 3 sites. How do accessibility considerations change across devices?
- EXAMPLE SPOTLIGHT: NPR – responsive breakpoints; BBC – navigation adaptation.

Week 6: Project 1 Work & GitHub Pages

September 23 (Tue) - Session 11

- Introduction to GitHub Pages deployment
- Git basics: add, commit, push
- **Lab 11:** GitHub Pages Deployment (see: LAB11_github_pages_deployment.md)
- Discussion: Web accessibility reading discussion - how do design decisions impact user experience?
- EXAMPLES: Portfolio Example – performance & scroll; GitHub README patterns.

September 25 (Thu) - Session 12

- Project 1 work time and troubleshooting
- Peer review and feedback
- PROJECT 1 DUE: Personal Portfolio Website (deployed on GitHub Pages)

Week 7: Introduction to JavaScript

September 30 (Tue) - Session 13

- What is JavaScript and why do we need it?
- JavaScript syntax: variables, data types, operators
- Console and debugging basics
- **Lab 12:** JavaScript Fundamentals & Programming Logic (see: LAB12_javascript_fundamentals.md)
- EXAMPLE SPOTLIGHT: TodoMVC (Vanilla) – event driven structure clarity.

October 2 (Thu) - Session 14

- Functions and scope
- Conditional statements and loops
- **Lab 13:** Functions, Loops & Problem Solving (see: LAB13_functions_loops_problem_solving.md)
- Reading Assigned: Benjamin, Ruha. "Introduction: The New Jim Code" from Race After Technology (2019)

Week 8: JavaScript and the DOM

October 7 (Tue) - Session 15

- What is the DOM?
- Selecting and manipulating HTML elements
- Event handling basics
- **Lab 14:** Event Playground & Progressive Enhancement (see: LAB14_event_playground.md)
- Self Reflection 2 DUE: Monday 10/7 by 11:30 PM
- EXAMPLES: Hacker News – baseline no-JS resilience; Product Hunt – dynamic loading patterns.

Fall Break - October 9 (Thu) - No Class

Week 9: Interactive Web Pages

October 14 (Tue) - Session 16

- More DOM manipulation: creating and removing elements
- Form handling with JavaScript
- **Lab 15:** Build interactive forms
- PROJECT 2 ASSIGNED: Interactive Web Application (Due Week 12)
- EXAMPLES: GOV.UK Form Flow – label & hint pattern; Airbnb Search – progressive disclosure.

October 16 (Thu) - Session 17

- JavaScript objects and arrays
- Local storage basics
- **Lab 16:** Storing user data
- Quiz 2: CSS Layout & Basic JavaScript

Week 10: Accessibility & User Experience

October 21 (Tue) - Session 18

- Web accessibility principles (WCAG basics)
- ARIA labels and semantic HTML
- Testing for accessibility
- **Lab 17:** Accessibility Deep Dive & Issue Remediation (see: LAB17_accessibility_deep_dive.md)
- EXAMPLES: WebAIM – strong a11y structure; Inclusive Components – annotated accessible patterns.

October 23 (Thu) - Session 19

- User experience fundamentals
- Form validation and error handling
- **Lab 18:** Improve form UX and validation
- Threaded Discussion 3 Launch: Accessibility on the web - analyze 3 sites using accessibility tools or screen readers. Connect to Benjamin's "New Jim Code" - how might automated systems create barriers?
- EXAMPLE SPOTLIGHT: Target Product Page – alt & focus; Material Design Components – consistent interaction patterns.

Week 11: APIs and External Data

October 28 (Tue) - Session 20

- What are APIs?

- Introduction to fetch() and promises
- Working with JSON data
- **Lab 19:** Fetch data from a simple API
- Discussion: How does Benjamin's concept of "New Jim Code" apply to the data and algorithms we encounter in web APIs?

October 30 (Thu) - Session 21

- Google Sheets as a simple database
- Setting up Google Sheets API access
- **Lab 20:** Connect web page to Google Sheets data

Week 12: Project 2 Work & Advanced JavaScript

November 4 (Tue) - Session 22

- Error handling in JavaScript
- Async/await basics
- **Lab 21:** Refine API integrations
- EXAMPLES: Open-Meteo – API documentation clarity; Public APIs List – data scanning practice.

November 6 (Thu) - Session 23

- Project 2 work time and troubleshooting
- Code review and optimization
- PROJECT 2 DUE: Interactive Web Application (deployed on GitHub Pages)

Week 13: Advanced Topics & Project 3 Prep

November 11 (Tue) - Session 24

- CSS frameworks overview (Bootstrap, Tailwind concepts)
- Component-based thinking
- **Lab 22:** Create reusable CSS components
- PROJECT 3 ASSIGNED: Final Project - Comprehensive Web Application (Due Week 15)
- Reading Assigned: TBD on the data and structures of power
- EXAMPLES: Tailwind Component Examples – utility composition; Bootstrap Alerts – pattern consistency.

November 13 (Thu) - Session 25

- Performance basics: optimizing images, CSS, JavaScript
- Web standards and best practices
- **Lab 23:** Performance & Responsive Optimization (see: LAB23_performance_responsive_optimization.md)
- EXAMPLE SPOTLIGHT: Squoosh – performance conscious design; web.dev – fast content delivery.

Week 14: Final Project Work

November 18 (Tue) - Session 26

- Final project planning and wireframing
- Advanced Git: branches, collaboration
- **Lab 24:** Project planning and initial setup

November 20 (Thu) - Session 27

- Final project work time
- Individual consultations
- Quiz 3: JavaScript, APIs, and Integration
- Discussion: How does the "coloniality of data" reading connect to our work with APIs and data integration? What power structures are embedded in the tools we use?

Week 15: Thanksgiving Week

Thanksgiving Break - November 25-27 - No Classes

Week 16: Final Project Completion

December 2 (Tue) - Session 28

- Final project presentations
- Course reflection and next steps
- PROJECT 3 DUE: Final Project (deployed on GitHub Pages)
- Threaded Discussion 4: Reflect on your learning journey - what surprised you most about web development? How has your understanding of technology's role in society evolved through the readings and projects?
- EXAMPLE SPOTLIGHT: Growth arc: revisit early Lab01 commit vs current project (live in class, anonymized).

Week 17: Final Exam Period

December 9 (Tue) - Final Exam Period

- **Time:** 11:00 AM - 1:30 PM
- Final project showcase and portfolio review
- Individual project consultations
- Self Reflection 3: Complete during exam period
- Course wrap-up and certificates of completion