Syllabus of Record

Program: CET Prague
Course Code / Title: PR/ITEC 340 AI Web Design: Building for Prague's Communities
Contact Hours: 45
Recommended Credits: 3
Primary Discipline / Suggested Cross Listings: Information Technology / Communication, Anthropology
Language of Instruction: English
Prerequisites / Requirements: None

Description
The course is built around the premise that automation has moved the value of the profession away from writing code and toward the work that surrounds it: finding out what is needed, deciding what to make, directing the machine precisely, and verifying the result against reality. Working in small teams, students identify, research, and build for an actual community organization, cultural or civic institution, or small local enterprise with a real need. Students investigate the research problem through observation and interviewing on site, and design a site grounded in what they find: content, structure, typography, layout, and accessibility. They then build the site by writing a specification and directing a professional AI coding agent, deploying it to a live public address, testing it with the same people who informed the research, and iterating on the evidence. No prior coding experience is required.

Objectives
Through their participation in this course, students will:

- Investigate a real audience and its needs in an unfamiliar community through observation, interviewing, and on-site data collection.
- Distinguish evidence from assumption, and polite answers from true ones, when synthesizing field research into findings.
- Develop a grounded design comprising content strategy, information architecture, wireframes, typography, layout, and accessibility.
- Build and deploy a working, publicly accessible website by writing precise specifications, directing an AI coding agent, and evaluating its output critically.
- Design and conduct moderated usability testing with real users and analyze the results to drive evidence-based iteration.
- Demonstrate, in writing and in presentation, how each design decision traces to a specific research finding.
- Examine the ethics of research with human participants and of AI-assisted production within a host culture.

Requirements
Active participation is essential in this course. Students are expected to attend each class and field study course component as outlined in the CET Attendance Policy. Three sessions are faculty-led field study components, in which teams work on site with partner organizations arranged in advance by the instructor. Students are responsible for obtaining written informed consent from every participant (form provided). Because the work is conducted in teams and much of it takes place on site with members of the public, absence affects colleagues and community partners directly. Students are expected to read all assigned materials before the relevant session and come prepared to discuss them. Reading assignments average 10-20 pages per session. All assignments are submitted via Canvas unless otherwise noted.

Graded assignments include:

- **Participation:** Students contribute actively to class discussion and in-class critique of work in progress, in which teams present drafts and give and receive peer feedback. They also engage with their team and work responsibly and respectfully with community participants in the field.

- **Research portfolio:** Field notes, interview guides and records, consent documentation, a synthesis of findings, and an evidence-backed design brief, submitted as a team with an individual reflection of approximately 750 words. Research quality and honest validation is valued over visual polish: a rigorously researched project that honestly reports weak impact outscores a polished site with an invented evidence trail.

- **Design and validation report:** Students produce information architecture, content strategy, wireframes, and prototype, accompanied by a written rationale that traces each significant design decision to a research finding, together with the results of prototype testing.

- **User testing and iteration report:** A usability test plan with task scenarios and success metrics, the findings of moderated testing, a severity-ranked change list, and evidence that the changes were implemented and verified.

- **Capstone:** The deployed site at a live public address, the specification and direction log documenting how the AI agent was instructed and its output evaluated, and a showcase presentation of the full evidence trail delivered to the class and to invited community partners and research participants.

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CET ACADEMIC PROGRAMS

Grading
The final grade is determined as follows:

Participation *(see rubric below)* 10%
Research portfolio 20%
- Team documentation: 15%
- Individual reflection: 5%

Design and validation report 15%
User testing and iteration report 15%
Capstone 40%
- Deployed site: 20%
- Specification and direction log: 10%
- Showcase presentation: 10%

Class Participation Grading Rubric

	A – 90-100% **Exemplary**	**B – 80-89%** **Proficient**	**C – 70-79%** **Developing**	**D – 60-69%** **Unacceptable**	**F – 0-59%** **Missing**
Class discussion	Contributes thoughtfully in every session, linking readings and field experience to the discussion	Contributes regularly; contributions are mostly thoughtful and relevant	Contributes occasionally or superficially	Rarely contributes; contributions are seldom relevant	Does not contribute
Critique and peer feedback	Presents work in progress clearly; gives specific, constructive feedback and acts on feedback received	Presents work clearly; feedback given is mostly specific and constructive	Presents work with gaps; feedback given is general or limited	Presents work poorly or late; rarely gives useful feedback	Does not present work or give feedback

	A – 90-100% Exemplary	B – 80-89% Proficient	C – 70-79% Developing	D – 60-69% Unacceptable	F – 0-59% Missing
Teamwork	Consistently reliable; shares the workload fully and supports teammates	Usually reliable; contributes a fair share of the work	Inconsistent; contributes less than a fair share	Rarely reliable; teammates must compensate	Does not contribute to team work
Conduct in the field	Always prepared, punctual, and respectful with partners; follows consent and privacy procedures without exception	Mostly prepared and respectful; follows procedures with minor lapses	Sometimes unprepared; needs reminders about procedures	Often unprepared or careless with procedures	Absent from field sessions or disregards consent and privacy procedures

Readings / Resources

Textbooks:

Hall, Erika. *Just Enough Research*. 2nd ed. New York: A Book Apart, 2019.

Krug, Steve. *Don't Make Me Think, Revisited: A Common Sense Approach to Web Usability*. 3rd ed. Berkeley, CA: New Riders, 2014.

Additional readings and resources:

Anthropic. "Claude Code." *Anthropic Documentation*. https://docs.claude.com/en/docs/claude-code/overview.

Association of Internet Researchers. *Internet Research: Ethical Guidelines 3.0*. AoIR, 2019. https://aoir.org/ethics/.

Beyer, Hugh, and Karen Holtzblatt. *Contextual Design: Defining Customer-Centered Systems*. San Francisco: Morgan Kaufmann, 1998.

Emerson, Robert M., Rachel I. Fretz, and Linda L. Shaw. *Writing Ethnographic Fieldnotes*. 2nd ed. Chicago: University of Chicago Press, 2011.

Horton, Sarah, and Whitney Quesenbery. *A Web for Everyone: Designing Accessible User Experiences*. Brooklyn, NY: Rosenfeld Media, 2013.

Hustwit, Gary, dir. *Helvetica*. Plexifilm, 2007.

Hustwit, Gary, dir. *Objectified*. Swiss Dots, 2009.

Kalbach, James. *Mapping Experiences: A Complete Guide to Customer Alignment through Journeys, Blueprints, and Diagrams*. 2nd ed. Sebastopol, CA: O'Reilly Media, 2020.

Krug, Steve. *Rocket Surgery Made Easy: The Do-It-Yourself Guide to Finding and Fixing Usability Problems*. Berkeley, CA: New Riders, 2010.

Lupton, Ellen. *Thinking with Type: A Critical Guide for Designers, Writers, Editors, and Students*. 2nd rev. ed. New York: Princeton Architectural Press, 2010.

Marcotte, Ethan. *Responsive Web Design*. 2nd ed. New York: A Book Apart, 2014.

Mozilla. "Learn Web Development." *MDN Web Docs*. https://developer.mozilla.org/en-US/docs/Learn_web_development.

Nielsen Norman Group. *Articles and Research Reports on User Experience*. https://www.nngroup.com/articles/.

Norman, Don. *The Design of Everyday Things*. Rev. and expanded ed. New York: Basic Books, 2013.

Portigal, Steve. *Interviewing Users: How to Uncover Compelling Insights*. 2nd ed. Brooklyn, NY: Rosenfeld Media, 2023.

Rosenfeld, Louis, Peter Morville, and Jorge Arango. *Information Architecture: For the Web and Beyond*. 4th ed. Sebastopol, CA: O'Reilly Media, 2015.

Singer, Ryan. *Shape Up: Stop Running in Circles and Ship Work that Matters*. Chicago: Basecamp, 2019. https://basecamp.com/shapeup.

Weinschenk, Susan. *100 Things Every Designer Needs to Know about People*. 2nd ed. Berkeley, CA: New Riders, 2020.

World Wide Web Consortium. *Web Content Accessibility Guidelines (WCAG) 2.2*. W3C Recommendation, October 5, 2023. https://www.w3.org/TR/WCAG22/.

Content

Topic 1 – The Changed Profession: What the Machine Automates and What It Does Not

- Live demonstration of an AI coding agent building a working site from a plain-language brief
- How the web works, in plain language: enough vocabulary to direct and evaluate, not to type
- The shift in value from producing code to defining, directing, and validating the work
- Problem spaces students have already noticed in the host city

Topic 2 – Field Research Methods for an Unfamiliar Community

- Ethnographic observation and the discipline of field notes
- Interview design, question sequencing, and the avoidance of leading questions
- Research ethics, informed consent, and working respectfully in a host culture
- Audience selection, team formation, and negotiating access across a language barrier

Topic 3 – Investigating a Real Audience on Site

- Observation and interviewing with a self-selected audience in Prague
- Recording evidence: notes, photographs where consent allows, artifacts, and quotations
- Working with intermediaries, gatekeepers, and translation

Topic 4 – Synthesis: From Field Notes to Evidence

- Affinity mapping and pattern finding across a team's raw material
- Distinguishing polite answers from true answers; quantifying qualitative findings
- Content strategy and information architecture derived from the evidence
- The evidence-backed brief as a contract between research and design

Topic 5 – Design Principles through the Lens of Real Users

- Typography, layout, color, and visual hierarchy in service of a specific audience
- Accessibility as a design requirement rather than a remediation task
- Wireframing and prototyping practice
- Traceability: every design decision mapped to a research finding

Topic 6 – Co-Design and Prototype Testing with Real Users

- Presenting an unfinished artifact to the people it is for
- Observing hesitation, confusion, and abandonment rather than asking for opinions
- Recording what changes as a result, and why

Topic 7 – Specification and the Direction of an AI Coding Agent

- Writing requirements, acceptance criteria, and edge cases an agent can execute
- Architecture literacy for directors: what to ask for, what to question, what to reject
- Critical evaluation of generated output against the brief and against the evidence
- The direction log as a record of professional judgement

Topic 8 – Implementation and Fidelity to the Research

- Structure and interface built from user-validated wireframes
- Checking the build against the evidence trail rather than against taste
- Version control and collaborative workflow

Topic 9 – Deployment and Quality Assurance

- Publishing to a live, publicly accessible address

- Cross-team quality assurance: testing another team's site against its own specification
- Performance, responsive behavior, and accessibility verification

Topic 10 – Designing Usability Research
- Task scenarios, the think-aloud protocol, and moderation technique
- Success metrics and the limits of small-sample testing
- Industry perspective on research, direction, and validation as the substance of the work

Topic 11 – Moderated Testing in the Real World
- Testing with the same people who informed the original research
- Separating observation from interpretation while moderating
- Handling findings that contradict the team's design convictions

Topic 12 – Analysis, Iteration, and Honest Impact Assessment
- Severity ranking and the construction of a prioritized change list
- Directing and verifying changes against the observation that motivated each one
- Reporting impact honestly, including negative and inconclusive findings
- The ethics and the limits of speaking for a community one has visited briefly

Field study and experiential learning components may include:
- Faculty-led field research with partner organizations arranged in advance by the instructor, such as a community organization, cultural institution, or small local enterprise.
- Faculty-led co-design and prototype testing on site with the same partners.
- Faculty-led moderated usability testing on site at the end of the build phase.
- Guest lecture: Prague-based design or technology practitioner on how research, direction, and validation now define professional practice
- Visit: Prague design or product studio

Syllabus of Record is subject to minor changes in Term-specific Syllabus at faculty's discretion.