Revised Proposal for Inquiry attribute status

IT502, Intermediate Web Design
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Capacity: 25 students per section

Background
IT502 (formerly CS502), Intermediate Web Design, is an established course open to all students who have taken CS403 as the necessary prerequisite but primarily servicing both IT majors and minors. We are proposing it as a candidate for the Inquiry attribute.

Course description
An intermediate level exploration of the theory and practice of Web design. Students learn the fundamentals of design theory applicable to the World Wide Web and examine tools and techniques for applying that knowledge to their projects. Additional topics include information architecture, usability, accessibility, optimization, typography and market visibility. Working knowledge of XHTML and CSS required. Prereq: CS403.

Course objectives
By the end of the course students should be able to:

- Describe considerations and methodologies central to the process of professional Web design;
- Analyze real-world Web design problems and challenges;
- Apply professional considerations and methodologies when implementing the results of those analyses; and
- Evaluate the myriad choices that arise during the Web design process and make informed decisions regarding those choices.

Course overview
The best way to learn Web design is to do Web design. Therefore, this course was designed to give students some experience of what it’s like to be a Web designer.

- Like Web designers, students are required to work both independently and in a team.
- Students are expected to develop expertise in a specific area of Web design while learning a broad range of other topics.
- Students get experience sharing knowledge with others, both as provider and consumer.
- Students are required to write Web pages in accordance with externally imposed conventions.
Coursework

Since the Web is a rapidly evolving technological sphere, Web designers must be able to learn new material quickly and independently. As such there are four required texts, covering several perspectives on the Web design process, which all students are required to read and prepare independently according to an established schedule of reading quizzes.

Each student is required to complete an individual project as a means of gaining a greater depth of understanding in a specific topic area and then sharing that newfound expertise with others. General topics are assigned to individual students (based upon their expressed preferences), and the students are then responsible for refining the topic by identifying the central themes and important questions. Students present their knowledge in two distinct venues. They each create a written tutorial which becomes a permanent part of the course Web site, and they each prepare and deliver a presentation to the class. Each student is responsible for submitting a short critique of each tutorial and presentation, including their own. And each student is also required to submit a set of test questions designed to assess their audience’s mastery of the presented material. The best of these questions are assembled by the instructor into the exam that the students take after all the individual projects have been presented.

Since most professional Web design is performed by teams, each student also participates in a semester-long team project. Teams (typically consisting of four students each) are formed by the instructor, and then each team is responsible for identifying a Web design project acceptable to all members. The teams work with the project’s stakeholder throughout the semester to design and build an effective Web site that will serve the stakeholder’s stated needs and objectives. Although there are mechanisms to penalize “free riders,” the successful resolution of interpersonal differences is an acknowledged component of the team project and to date no team has had to resort to the expulsion of a free rider. Teams are required to meet a series of scheduled checkpoints throughout the semester to keep them on track, and each team presents the results of its efforts to the class at the end of the semester.

Inquiry features

In the sciences, it is commonly understood that inquiry often emerges following some initial knowledge in the fundamentals of a discipline. Thus, inquiry courses based in the sciences will likely introduce facts and principles while at the same time facilitating skill building in asking questions, exploring the context of these questions and attending to new possibilities. This course in web design uses texts as resources for content, as well as providing information from other disciplines (e.g. psychology) that are critical to understanding how individuals are attracted to and use web-based materials.

**Inspire curiosity:** An Inquiry student will compose open-ended questions that lead to further investigation into increasingly focused problems and issues.
The independent readings during the first half of the semester tend to expose students to new ideas and perspectives on Web design that inspire them to formulate and explore additional questions, both within the context of the course and without.

The individual project is also engineered to foster a student’s curiosity. Although general topics are assigned by the instructor, the instructor bases those assignments on preferences solicited from the students themselves. In addition, the instructor provides guidance and supervision throughout the formulation phase to help students focus their attention on the ideas and questions of greatest interest and import to them.

**Develop understanding and perspective taking:** An Inquiry student will explain a central issue or question of the course using at least two unique perspectives.

Students in this course must apply critical thinking skills and be adept at taking the perspective of both their projects stakeholders and their various target audiences. Further, students must use the perspectives from other disciplines, including psychology, communication, art, human perception, sociology, and organization behavior, in order to both design and critique the final product. To be successful with their team projects, students must hold discussions within their team where they compare and contrast each other’s strategies for solving the problems of delivering an effective web-based interface to specific constituencies. Students also perform a degree of critical analysis when they formally exchange critiques of each other’s individual work (both class presentations and online tutorials). User-centered design and usability are central themes of the course, and both are based upon the use of careful analysis, interaction and role playing to identify the needs, goals and expectations of others.

The selection of books assigned during the first half of the semester is also engineered to expose students to a broad range of perspectives on what makes a Web page “work.” The current selection of books presents several perspectives including the aesthetic, the psychological and the pragmatic.

**Clarify standards of thinking:** An Inquiry student will be able to identify, compare, and evaluate different interpretations (hypotheses, explanations) of a given phenomenon.

To be successful in this course (and in the field of Web design), students must be able to identify and evaluate several different, and often conflicting, interpretations of a particular decision’s impact. A design decision intended to improve the visual appearance or branding of a Web site may have a detrimental impact on that site’s usability, functionality or findability (to name only a few of the considerations). As such, this course encourages students to explore each design decision as a single part of an integral whole.

**Create effective communicators:** An Inquiry student will present in clearly organized form the results of the investigation into questions or problems they have posed.
Web design is all about effective communication. But aside from learning how to communicate more effectively via well-designed Web sites, the individual and team projects are designed to hone other communication skills as well. Students develop their receptive communication skills through the independent study of four texts written from different perspectives by different authors with different styles. Students develop their written communication skills when preparing their tutorial and exam questions for the individual project. They develop their oral communication skills in making their individual and team project presentations to the class. They develop their interpersonal communication skills working with their teammates and stakeholders. And they develop their critical communication skills writing critiques of tutorials and presentations. Of course, the instructor is involved in all of these processes to help guide, assess and enhance each student’s individual progress.

Additional information
For additional information about the current course policies, schedule, textbooks and coursework, please refer to the course Web site at http://www.cs.unh.edu/cit/502/