INFO I399: Research Methods for Informatics, Fall 2013

Course staff:
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Meetings:
Tuesdays and Thursdays 4:00-5:15 in Informatics East 130

Course content:
This course is designed to introduce students to scientific research, specifically in the fields of Informatics. The course will introduce important concepts, methods, and techniques in performing research, including identifying research questions, conducting literature reviews, designing surveys and experiments, performing statistical analysis, managing team projects, using collaborative tools, and reporting results to the public through papers, posters, and videos. The course will also introduce students to various research areas in informatics, information science, and computer science. Class sessions will consist of a mixture of lectures, guest presentations, discussions and activities, and group work time.

Schedule:
A schedule for the class, with links to readings, assignments, and other resources, will be available via OnCourse: http://oncourse.iu.edu/. Check under the "Wiki" link.

Assignments:
The class is centered around a semester-long team research project, in which students will go through all stages of research from defining a concrete research question all the way to reporting results to the public. Teams (of about 4 students) and project topics will be assigned by the course staff, although we will try to satisfy student preferences as much as possible. Each team will be assigned a graduate student mentor who will serve as a consultant to assist the team throughout the course of the research project. Teams will be required to submit a number of deliverables throughout the course of the semester, including: (1) a project proposal and presentation, (2) a midterm project review report and presentation, and (3) a final project report, presentation, poster, and video.

There will also be approximately 6 short homework assignments to be done by individual students (not in teams) that address specific research issues and techniques.

Grading:
Grading will be based on a combination of individual and team activities. The individual grading items include:

- **Attendance and participation (20% of course grade):** Students are expected to attend all classes and actively participate in class meetings, activities and discussions.

- **Individual assignments (20% of course grade):** There will be approximately 6 short individual assignments throughout the semester related to material covered in class.

The team grading items include three phases of deliverables:

- **Project proposal and review (about 4 weeks into the semester, worth 10% of course grade):** This is a short 4-5 page paper and a presentation that proposes a concrete research question for the semester-long project, including a discussion of the importance of this question, a literature review of existing work in this area, and a plan for completing the project.

- **Midterm review (about 8 weeks into the semester, worth 15% of course grade):** This is a progress report and a presentation on the current status of the project.

- **Final review and public dissemination (end of the semester, 35% of course grade):** The final project submission consists of
four deliverables: (1) a final report, (2) a final presentation, (3) a poster and participation in a poster session, and (4) a project website and video.

These deliverables are designed to give teams regular feedback on their work, to give ample opportunity to practice skills and to identify and correct deficiencies in projects as early as possible. Feedback will come from course staff, mentors, and other students in the class.

**Academic Integrity Policy:**

*We take academic integrity very seriously.* You are required to abide by the Indiana University policy on academic integrity, as described in the Code of Student Rights, Responsibilities, and Conduct, as well as the Computer Science Statement on Academic Integrity (http://www.cs.indiana.edu/Academics/integrity.html). It is your responsibility to understand and follow these policies.

Briefly summarized, these policies require that the work you submit for course assignments, projects, quizzes, and exams must be entirely your own (or entirely that of your group, if groupwork is permitted). You may use the ideas of others but you must give proper credit. You may discuss assignments with other students (or students in other groups) at a high level, by for example discussing general methods or strategies to solve a problem, but you must cite the other student in your submission. We will respond to acts of academic misconduct according to university policy concerning plagiarism; sanctions for plagiarism can include a grade of F for the assignment in question and/or for the course and must include a report to the Dean of Students Office.

Students agree that by taking this course all required papers may be subject to submission for textual similarity review to Turnitin.com for the detection of plagiarism. All submitted papers will be included as source documents in the Turnitin.com reference database solely for the purpose of detecting plagiarism of such papers. Use of Turnitin.com service is subject to the Usage Policy posted on the Turnitin.com site.

**Religious Holidays:**

Indiana University respects the right of all students to observe religious holidays and will make reasonable accommodation, upon request, for such observances. Each year, instructors are provided with the dates of major religious holidays for which students may request accommodation. Students must submit written requests for accommodation in writing by the end of the second week of the semester. Instructors are expected to give students the opportunity to do appropriate make-up work that is intrinsically no more difficult than the original exam or assignment. (Source: Indiana University Academic Guide, https://www.indiana.edu/~vpfaa/academicguide/).