

2008 Capstone Experience – Information Sheet

Undergraduate Bachelor of Science in Informatics
The Information School
May 23, 2007

All Informatics majors must complete a capstone project. This document describes the goals for the capstone experience, provides a timeline, and answers frequently asked questions about the capstone.

What's new this year?

This year we're going to try something new – a theme that will be shared by all of the capstone projects. This is an important change from previous capstones. With a single theme, we will be able to better share information, ask critical questions of each other's work, and address a very important problem. Moreover, taken together, the capstone projects as a whole will be positioned to make a larger statement about the role of information solutions within the area.

Environmental Sustainability is the theme for the 2008 Informatics Capstone – all capstone projects this year will address a significant information problem related to environmental sustainability.

The capstone, worth 8 credits, will take place in the Winter 2008 quarter. The instructors are Batya Friedman (batya@u.washington.edu, 370E Mary Gates Hall) and David Hendry (dhendry@u.washington.edu, 330P Mary Gates Hall).

For up-to-date information about the capstone: <https://depts.washington.edu/infocap/index.shtml>

Goals for the Capstone Experience

- *Student-defined Information Problem*: In courses, faculty provide students with relatively well-defined information problems. In the capstone experience, students define the information problem for themselves.
- *Student-defined Method(s) of Investigation*: In courses, faculty expose students to a variety of techniques that can be applied to information problems. In the capstone experience, students determine what techniques to use for the information problem they identify.
- *Synthesis of Human-Centered and Technical Strands*: The informatics approach integrates human-centered and technical dimensions of information systems. While a specific capstone project might emphasize one dimension or the other, it is expected that both dimensions will be present to some extent.
- *Make a Difference*: Following the overarching mission of the Information School, the Informatics capstone project should make a positive difference for the community in which it is carried out -- be it a business, school, hospital, or other context.
- *Passion!*: The capstone project should be something the student feels passionate about.

2008 Capstone Timeline

Summer 2007 Begin to Brainstorm Possible Capstone Projects

Begin to think about what sort of capstone orientation you might wish to pursue. Brainstorm some possible projects – perhaps 5 –6 different sorts of projects or questions here. Think about who you might wish to work with and begin some informal discussions.

To develop a common background, please read these three papers (posted on the course website):

Blevis, E. (2007). Sustainable interaction design: invention & disposal, renewal & reuse. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (pp. 503-512). New York, NY: ACM Press.

Friedman, T. L. (2007, April 15). The power of green. *The New York Times Magazine*, pp. 40-51, 67, 71-72.

Goodland, R. (1995). The concept of environmental sustainability. *Annual Review of Ecology and Systematics*, 26, 1-14.

- Autumn 2007 INFO 470 and INFO 440
Take INFO 470 and INFO 440 if you have not already done so. In the context of these courses, solidify the capstone orientation you would like to pursue.
- Refine Ideas for your Capstone Project
Narrow down your choice of possible capstone projects to 2 or 3, and settle on a team.
- Suggested Preliminary Discussion (Optional)
As you begin to formulate your capstone project, we suggest you chat informally about your ideas with one of the instructors of the capstone course. This is a good time to get feedback on the scope of your proposed project, etc.
- Nov. 2, 2007 Register for Winter 2008 Capstone Course (INFO 490 - 8 credits)
Register for the capstone course.
- Nov.15, 2007 Capstone discussion meeting
To meet possible clients and discuss capstone projects
- Nov. 27, 2007 Statement of Intention
A “statement of intention” describing the capstone project you intend to pursue must be received by either David Hendry or Batya Friedman no later than *Nov. 27, 2007* for a 2008 Capstone Project. While your statement of intention is not binding, it will provide an opportunity for feedback prior to the beginning of winter quarter should your proposed project not meet the scope, context, or other requirements of the capstone. The 1-2 page statement of intention should include the following:
1. Project Title
 2. List of Team Members
 3. Email Addresses and Phone Numbers (where you can be reached from Dec. 3 – 24)
 4. Abstract (a 1-2 paragraph description of the proposed capstone project). The abstract should explain (a) What the problem is, (b) Why it matters, and (c) How you will solve the problem. To answer these key questions, you should consider such questions as: (a) Who are the clients and stakeholders, (b) How will you engage them, (c) What data will you use or collect, (d) How will you define the scope of your project so it is neither too narrow nor too broad, (f) If you plan to build a system, what tools will you use, and (e) How will you assess the outcome of your project. Different capstones may emphasize these elements to different extents.
 5. Plan of work (1 paragraph). Describe the research/design methods that you plan to use. You might, for example, plan to create a questionnaire, interview people, create a conceptual database model, implement a prototype, and evaluate it. Or you might create a survey, pilot the survey on a small group, revise it, deploy it on a large scale, analyze the results, and draw conclusions. Use this section to describe your approach.
 6. Resources (any special equipment or software)
 7. Client Information (if you will be working with a client, include the client’s contact information)
 8. Letter of Support from Client (if you will be working with a client, attach a brief letter from the client stating his or her intention to be accessible to and work with you during the quarter of the capstone)
- Winter 2008 Capstone Course Begins (INFO 490 - 8 credits)
- Winter 2008 Completion of Capstone Project and Archival Copy
Written documentation of the capstone project, as specified by the course instructor, must be completed. The exact due date will be determined by the course instructor. In addition to any copies provided to the course instructor, an archival copy of all written portions of your capstone project must be provided to the Chair of Undergraduate Programs at the Information School.
- Spring 2008 2nd Annual iSchool Capstone Event
In the Spring 2008, each student or team of students will have an opportunity to present their capstone project to the Information School and larger University of Washington community. You will also be encouraged to present your capstone work at the Undergraduate Research Symposium.

Frequently Asked Questions

1. *What possible approaches can be followed for completing the capstone?* You can choose to emphasize the development, design, and implementation of an interactive information system. For this type of capstone, you can expect to draw heavily on the material introduced in INFO 440 and CSE 373 (INFO 340, 341 and 344 also recommended). Alternatively you may choose to emphasize the human use of information systems, including human information behavior, organizational analyses, information policy, and ethical issues. For this type of capstone, you can expect to draw heavily on the material introduced in INFO 310, 311, 370, and 380. Of course, many projects will integrate multiple aspects.

2. *What are some examples of good capstone projects?* There are an infinite number of good capstone projects. Here are two possibilities.

Office energy use. You work with a local business to analyze its energy footprint. You collect data on water and power consumption, employee commute distances and modes of transport, and so on. Then, you design an information system that enables employees to visualize the business's use of resources. You introduce a prototype of your system and investigate how it promotes conversations about energy consumption among employees and management.

Improve urban eco-systems. Using satellite data and Google Maps, you create a special purpose map which highlights areas of green space in Seattle. In addition, people are able to annotate the map by indicating the locations of particular kinds of features (beautiful dogwood, native trilliums, old Douglas fir, birdhouses) and other useful information. Working with a local Garden store, you develop a prototype of a kiosk and investigate how people might use such information to improve the quality of their local urban ecosystem.

3. *Should I do a group or an individual capstone project?* That's up to you. Both are viable options. Some factors you may wish to take into account include: (a) your preferred personal working style (e.g., do you prefer working alone or in a group), (b) the project scope (e.g., how big is the project? a larger project may require the efforts of more than one person to complete in a quarter), and (c) the skill set required to do the project (e.g., some projects may require a high level of skill in a wide range of areas – data collection, programming, visual information presentation, etc. – so that it may make sense to assemble a team of individuals with complementary skills).