SSCI 585 – Geospatial Technology Project Management

Course Syllabus – Fall Semester 2013

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Office Hours: (tentative) Monday – Friday by appointment
Always available asynchronously via email. Also available for synchronous chats via phone or Skype or Adobe Connect, audio or video most days and times by prior arrangement via email.

Course Scope and Purpose

This course is an elective course for both the GIST Graduate Certificate and Master of Science degree programs and provides a practitioner’s perspective of geospatial technology project management. Although many people believe GIS project management is about software design and development, computer hardware and geospatial data, experienced GIS project managers understand that there is much more to it. This course takes a systematic approach to explore the management issues and methods necessary for developing a successful geospatial technology project. We will cover several topics:

Geospatial Project Management Principles – We start by focusing on building support for geospatial technology projects by examining critical topics associated with geospatial project management, including the typical project life cycle, program planning and development, popular (i.e. potential) organizational structures, financial management, human resources, the technical and operational environment, and communications, among others.

Running a Geospatial Technology Project – Here we examine the fundamentals involved in completing a successful project on time and on budget, by examining a variety of topics associated with funding, financial management, monitoring and reporting, risk management, multi-organizational agreements (collaborations), and the various approaches needed to manage the technical design (system configuration, data, applications) and the development and maintenance of these technical components.

Human Resources – We next take up the various roles played by people in geospatial technology projects, covering topics associated with project leadership, team building and capacity building, among others. We will also examine the opportunities for geospatial technology certification and some of the legal and ethical considerations that may influence geospatial technology projects and their outputs (i.e. deliverables).

Current and Emerging Trends – We will throughout the semester consider some of the current and emerging trends that may modify the ways in which geospatial technology projects are conceptualized and implemented in the coming years. Potential topics include the consequences of choosing open source vs. proprietary software solutions and the contributions of geospatial standards, spatial data infrastructures, web-based geoprocessing service architectures, and volunteered geographic information to present-day and future geospatial project workflows.

Learning Outcomes
When you have completed this course, you will be able to:

- Identify and critically analyze the issues involved in organizing, planning, monitoring and controlling a geospatial technology project;
- Initiate a small-scale geospatial technology project by developing project plans and financial budgets, assembling project costs and benefits, developing investment appraisal methods and using authorization, monitoring and control processes;
- Discuss the role, significance and impact of people in a project management setting, and evaluate and implement strategies for managing people in geospatial technology projects;
- Review current geospatial technology project management methodologies and appraise their effectiveness and efficacy for managing different types of geospatial projects.

Course Formats

This a graduate level course, so you should expect this class to be both academically robust and intellectually challenging. As graduate students you are expected to engage with the information you are learning and to explore the heady cauldron of ideas, opinion, and analysis that describe our collective effort to thoroughly interrogate the subject at hand. Learning arises from active engagement with the knowledge found in our reading materials and with one another. As in any graduate-level class, the instructor's role is that of a guide who keeps you on this path of discovery and you will find that you will learn much from your fellow classmates. The challenge for us is to replicate such an academic experience within the milieu of “online learning”.

All course materials will be organized through Blackboard. The main theoretical concepts will be provided through course notes and assigned readings and the assignments will give students an opportunity to internalize and apply the concepts and theory learned from readings. Some assignments require student interaction, all will benefit from it.

We have several technologies that will facilitate our course work and our interactions, despite our dispersed locations. These include:

Blackboard – All course materials and correspondence will be posted on the course Blackboard site. As a registered student you’ll find this course will show up in your available courses at noon Pacific Time on the first day of classes. It is here that the day-to-day flow of the course will be recorded.

Discussion boards – On the Blackboard site, we’ll post a number of discussion threads relevant to various sections of the course. I may or may not participate in these threads but they are vitally important when we get to some of the "hands-on" work as we expect students to work “together” on these exercises, sharing hints and help as you would do in a common laboratory classroom. Additional discussion threads may be used to organize asynchronous discussions.

Live meetings and presentations - At USC, we use a browser-based service called Adobe Connect to create synchronous interaction sessions. With voice and webcam capabilities Adobe Connect can be used to share presentations and even our desktops between two or more people.

Individual meetings - While Adobe Connect can be used for one-on-one meetings, we sometimes find it is easier to use the free VOIP and chat technology, Skype (http://www.skype.com/), for individual chats.
**Assessment**

Your grade in this class will be determined on the basis of several different assessment tools:

**Reading Assignments – 6 for a total of 18 points.** These will focus on the theory portion of the course as presented in the weekly readings. Their objective is to help you evaluate and integrate the information you have acquired from the course readings. Some of these will involve discussions and collaborative work and some will be individual efforts. These are graded on an A / B / C scale – A is excellent, B is good, C is not acceptable (and also not acceptable for graduate level work). The first reading assignment is required and following this assignment, you are free to choose any five of the 10 subsequent assignments but you must complete and submit them for grading in the weeks specified at the end of this syllabus. Late assignments will be docked one grade and no grade will be given for assignments turned in over one week late.

**Exercises – 5 for a total of 22 points.** In order to demonstrate that you understand the basic concepts and skills learned in the class, you will complete six exercises that will integrate key concepts and ideas and take some independent thought. The first exercise is mandatory and following this exercise, you are free to choose any four of the six subsequent exercises but you must complete and submit them for grading in the weeks specified at the end of this syllabus. Late exercises will be docked one grade and no grade will be given for exercises turned in over one week late.

**Presentations – 1 for a total of 15 points.** This assignment will require some independent thought and synthesis and allow you to explore a case study of your choice. The results will be presented over the Web in Week 8 with the help of a PowerPoint slideshow.

**Research Papers – 2 for a total of 45 points.** The first paper (15 points) will provide you with an opportunity to explore one of a suite of management challenges in more depth and the final paper will afford you the opportunity to integrate all that you have learned in the semester for a specific application that I will designate when the guidelines for the final papers are distributed.

**Requirements**

**Textbooks** – There are three books required for this course. The most important of the three books by Croswell needs to be purchased (from either the USC Bookstore or online outlets such as Amazon. The other two books are optional since we will use parts of them and will provide these parts online. We will need the Croswell book from the first day of class.


These textbooks will be supplemented with Course Notes and a mixture of readings from academic journals, professional reports and authoritative websites.

**Readings** – To be posted to Blackboard under Course Documents:
Technology – There are several technology requirements:

- Every student must have a computer with a fast Internet connection.
- Every student MUST have a functional webcam and microphone for use whenever a presentation or meeting is scheduled.

Communications – This is a distance learning course, so most of our interactions will be asynchronous (not at the same time). All materials to be handed in will be submitted via the Blackboard Assessment link. I will also create one Blackboard (BB) discussion forum at the start of the semester and I may create and/or monitor additional BB discussion forums through which we can discuss issues and comments on the course assignments, exercises and project as the need arises.

I will send via e-mail through Blackboard any notices that are time sensitive. Please be sure that you read as soon as possible all e-mail sent from Blackboard or from me. Also double check to be sure that mail sent from both the USC blackboard accounts and my private domain (pultar@usc.edu) does not go into your junk mail!

While I am usually online and will probably respond to e-mails from students relatively quickly, during the schoolweek I will endeavor to respond to all e-mail within 24 hours of...
receipt, aiming for no more than 36 hours delay. In the rare case when I expect to be offline for more than 48 hours, I will post an announcement on the Blackboard site.

Your responsibility: It is each student's responsibility to stay informed about what is going on in our course. In addition to e-mail about time-sensitive topics, any important announcements will be posted on the Announcement page in Blackboard. Be sure to check these each time you log onto Blackboard.

**Workload** – This is a four credit, one semester course. Students should expect to spend 10-12 hours per week completing the work in this course.

**Students with Disabilities**

Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to an instructor as early in the semester as possible. DSP is located in STU 301 and is open from 8:30 a.m. to 5:00 p.m., Monday through Friday. The phone number for DSP is (213) 740-0776.

**Statement on Academic Integrity**

USC seeks to maintain an optimal learning environment. General principles of academic honesty include the concept of respect for the intellectual property of others, the expectation that individual work will be submitted unless otherwise allowed by an instructor, and the obligations both to protect one’s own academic work from misuse by others as well as to avoid using another’s work as one’s own. All students are expected to understand and abide by these principles. Scampus, the Student Guidebook, contains the Student Conduct Code in Section 11.00, while the recommended sanctions are located in Appendix A: [http://web-app.usc.edu/scampus/wp-content/uploads/2009/08/appendix_a.pdf](http://web-app.usc.edu/scampus/wp-content/uploads/2009/08/appendix_a.pdf). Students will be referred to the Office of Student Judicial Affairs and Community Standards for further review, should there be any suspicion of academic dishonesty. The Review process can be found at: [http://www.usc.edu/student-affairs/SJACS/](http://www.usc.edu/student-affairs/SJACS/).

**Important Administrative Dates**

- 8/26: Fall semester classes begin
- 9/2: Labor Day, university holiday
- 9/13: Last day to register and add classes
- 9/13: Last day to change enrollment option to Pass/No Pass or Audit
- 9/13: Last day to drop a class without a mark of "W" and receive a 100% refund
- 11/15: Last day to drop a class with a mark of W
- 11/27-30: Thanksgiving recess, university holiday
- 12/6: Fall semester classes end
- 12/7-10: Study days
- 12/18: Final Examinations end
- 12/19-1/12: Winter Recess

[http://www.usc.edu/academics/classes/term_20133/calendar.html](http://www.usc.edu/academics/classes/term_20133/calendar.html)
### Tentative Schedule

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