SSCI 594a – Master's Project Preparation
Course Syllabus – Fall 2014

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Office Hours: Monday 9-10am, Thursday 1-2pm, or by appointment (Pacific Time)
I am always available asynchronously via email. I am also available for synchronous chats via phone, audio, or video most days and times *by prior arrangement* via email.

Course Scope and Purpose

This course and its successor, SSCI594b, are required for the Master of Science degree program; they are not applicable to the GIST Graduate Certificate program. The purpose of these courses is to accomplish a project demonstrating ability (PDA) in the Spatial Sciences, culminating the student's experience at USC/SSI and validating them as a master practitioner. The PDA can be a traditional thesis, a cartographic portfolio, a GIS programming implementation (e.g. web GIS, mobile GIS), or some other sizable, professional study based in the spatial sciences or their application to another field. Although the content varies widely depending on the subject, all PDAs culminate in a thesis manuscript that is available at the USC Libraries and on the Spatial Sciences Institute (SSI) website.

Since the undertaking of a thesis is a very personal process, by the time students get to this course, progress on the thesis varies significantly. Those who have taken SSCI 587 recently may already have in-hand a well-drafted prospectus that you would like to work on. Others may have a prospectus, but they have decided to abandon it for a new topic, and a few others will just now begin embarking on developing their thesis ideas. This course is designed to make all of you move forward towards the goal of completion.

As a result of the diversity, there are two tracks in this course:

- *Prospectus track* – for students who did not complete a prospectus in SSCI 587 or who want to start again on a new topic.
- *Proposal track* – for students who have a prospectus they want to move forward to a thesis proposal.

You will determine which track you prefer to follow during the first week of the semester.

Learning Outcomes

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

- Distinguish different styles and qualities of writing, critically evaluate your own and others' writing, and write better yourself;
- Understand the research process, be aware of research obligations and pitfalls, and design a credible, meaningful research project for yourself;

- Utilize the Microsoft Office™ software suite and a bibliographic reference manager competently and efficiently to produce documents that meet GIST program requirements and show your work to advantage; and
- Describe your Master's PDA succinctly, in written and oral forms, to faculty, mentors, and potential sponsors.

Course components

All students in this class, no matter what track, will participate in several common components during the semester:

Reading and Writing – We will read in their entirety Strunk & White's *The Elements of Style* along with Turabian et al.'s *A Manual for Writers*, along with texts of varying lengths and styles, including encyclopedia entries, journal articles, book chapters, and also completed theses from our program. We will discuss the strengths and weaknesses of these texts in on-line discussions, small group teleconference sessions, using Adobe Connect and/or Skype.

Research Methods – We will read sections from Montello & Sutton's *An Introduction to Scientific Research Methods in Geography & Environmental Studies* and attend guest lectures (recorded) from experts on such topics as human subjects research, test instrument design, computer equipment (hardware and software) utilization, and the all-important literature review.

Technical Tools – We will learn/brush-up on modern technical tools for publication, including particularly the MS Office suite (Word, Excel, and PowerPoint), and its interfaces with add-ins for bibliographies, equations, and illustrations, including automated citation tracking tools. We will also become aware of the details of the required document format and citation style for GIST thesis manuscripts.

Writing Advising – Since a successful thesis requires production of a long, well-written document detailing the research and work you have done, it is essential that all thesis students develop advanced writing skills. To assist you in this, you will be assigned one member of our Writing Faculty to work as your writing coach. Your Writing Faculty will review some of the documents you write during the term to give you direction on improving your writing style. You will also have a few individual meetings with your Writing Faculty so that you can discuss the best ways for you to advance in this regard.

The writing faculty offers integrated support to GIST students during the thesis-writing period of their studies, starting from 587 all the way through 594A, and defense. Writing faculty work individually with students, meeting several times a semester to discuss strategies for better writing, to examine the strength of ideas, and to ensure the integrity of analysis and discussion. While students are responsible for editing their own work, writing instructors will guide students through particular areas of difficulty, working on both global issues—idea generation, clarity of hypothesis, focus, specificity of study—as well as surface-level issues, including paragraphing, sentence structure, grammar, and mechanics. GIST writing instructors are faculty members of the USC Writing Program.

Faculty Review Juries – Twice during the term, a committee of SSI faculty will review documents you have submitted to assess whether your research ideas and preparation for the research you plan to do is sufficient to warrant your moving forward to the next step. This will provide you with valuable advice as you fine-tune your research plan.

The final component of the course will depend on your track:

Master's Thesis Prospectus – We will utilize your preparation in both the required and elective courses in our program to prepare a Statement of Research Interest (StoRI), Expanded StoRI, and a prospectus for your Master's thesis project. For this track, the "final" in this course is a well-reasoned, well-written *topic prospectus* document, which sketches the goal/problem/question motivating the student's PDA, supported by a literature review. This prospectus is accompanied by both a short slide presentation and an abstract. It is the foundation for a plan for completing the project by the end of 594b, though getting done this quickly requires early commitment in this course to a viable thesis topic and a high level of achievement on all the assignments.

Master's Thesis Proposal – We will utilize your preparation in both the required and elective courses in our program to help you to turn your topic prospectus into a master's thesis proposal. For this track, the "final" in this course is a well-reasoned, well-written *master's thesis proposal* and accompanying *slide deck* and *abstract*. This constitutes essentially a complete draft of the first three chapters of your thesis manuscript. It must present a complete and viable plan for finishing the thesis by the end of 594b.

Absent a topic prospectus or thesis proposal, slide deck, and abstract, a thesis committee may fail to be recruited. Without appointment of a thesis committee at the end of SSCI 594a, the successor SSCI 594b *must* be used to establish those prerequisites before proceeding with the PDA itself**. In such a case, additional semesters (i.e., SSCI 594z) would most likely be required to complete the PDA, delaying the ultimate goal of obtaining the MS degree.**

Course Formats

This a graduate level course, so you should expect it to be both academically robust and intellectually challenging. As a graduate student, you are expected to engage with the subject matter and to critically assess the ideas, opinions, and techniques presented in the readings and exercises. My role as instructor is that of a guide to help keep you and your fellow students on the path of discovery. The challenge for all of 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. The editing and writing exercises are designed to bring you face-to-face with practical problems. All software products required will be accessible over the Internet.

The technologies that facilitate our coursework and interactions include:

Blackboard (Bb) – If you are registered for this course, it will automatically show up on Blackboard, in your list of available classes no later than 12:00 noon PT on the first day of classes. Subsequently, all learning materials, including formal correspondence and assignments from me will be posted on Blackboard. You should submit your work products back to me via Blackboard, too.

Discussion boards – Also, we will use Blackboard to host informal discussion boards relevant to various aspects of the course, particularly the exercises; these are other forums for "working together", sharing hints and help as in a traditional classroom setting. These threads are mainly meant as a forum for student-to-student discussion. I will not be monitoring these threads regularly, so please use email to reach me if you have a question that needs an immediate answer.

Live meetings, recorded meetings, & presentations – Adobe Connect is a browser-based service that facilitates synchronous, interactive sessions with voice/video and shared desktop capabilities between two or more people; this is the primary forum for our group discussions and presentations. There are also recorded research presentations from USC SSI and SSI-affiliated faculty available on Adobe Connect.

Telecommunications – Mobile or landline phones, usually supplemented with video and shared desktop via Adobe Connect, or Skype (if necessary), are the preferred technologies for individual chats with me.

GIST server and tech support – Unlike other courses in the GIST program, students in this course will utilize the SSI GIST Server, which is a virtual desktop, only for independent thesis work (e.g. to explore datasets and perform initial analysis). Even then, relative to other courses in the program, work on ArcGIS on the server is not expected to be a major component of activity in this course. You can access the GIST Server at: https://gistonline.usc.edu/. If you are unable to connect to the server or experience any type of technical issues, send an email to GIST Tech Support at gistsupport@dornsife.usc.edu and make sure to copy (cc) me on the email. GIST Tech Support is available Monday through Friday, 9:00 a.m.-5:00 p.m. PT. Please be sure to be specific with respect the problem you are experiencing as whatever work is required on will be unique to each thesis project.

Assessments

An In-Progress (IP) grade is automatically assigned for SSCI594a; this converts to Passing (P) when SSCI594b (and if necessary SSCI594z) is/are completed. Nonetheless, student work in SSCI 594a **is graded** according to rubrics provided with each assignment. Students should utilize this adherence to standard grading protocols as a signal, throughout the semester, as to whether they are "on track" towards successful completion of the thesis.

The graded assignments in the course vary according to track. Some assignments are the same, others are specific to the track as shown below:

Prospectus Track	***Proposal Track***
Resume Assignment – 2 pts. We require all current students to post and maintain a public resume, short biography and recent photo on our shared GIST Student Community Blackboard site. With your permission, your photo and resume will be posted to the Spatial Sciences Institute website and your resume will be included in the GIST Resume Book. The latter is compiled annually and, along with our web presence, is used to promote our programs and more importantly, your skills, experience, and professional aspirations.	
Introduction – 2 pts. Using a Blackboard blog, you will post a brief introduction about your background and professional aspirations, and provides some initial thoughts about your thesis topic.	
Thesis Sample Discussion – 5 pts. At the start of the course, the class will discuss one previously completed GIST thesis in a Bb discussion forum. This insures that all students know what a thesis is like. You will be required to respond to several discussion questions and to comment on other students' postings.	

<table>
<tr><th>Prospectus Track</th><th>Proposal Track</th></tr>
<tr><td colspan="2">Research Article Précis – 6 pts. As practice and demonstration of the skills of professional writing discussed in the course, you will write one précis of a research article identified by the instructor.</td></tr>
<tr><td rowspan="2">Short Summaries – 3 for a total of 15 pts. You will watch one SSI faculty or SSI-faculty affiliate video and read two previously completed GIST theses, all chosen by you for their relevance to your research interest. You will submit short written summaries of these following questions provided by the instructor.</td><td>Peer Review and Revision of Prospectus – 10 pts. Working in teams, you will review other students' (revised, if desired) topic prospectus from SSCI 587 according to a rubric provided by the instructor. After the review, you will revise and submit your prospectus addressing the comments received.</td></tr>
<tr><td>Short Summary – 1 for a total of 5 points. You will choose and read one previously completed GIST thesis that is of interest and relevant to your thesis topic, then submit a short summary addressing questions provided by the instructor.</td></tr>
<tr><td>PDA Document 1: Statement of Research Interest (StoRI) – 10 pts. The StoRI is an initial formal statement of your ideas about a research topic for your project, written according to a structured format.</td><td>PDA Document 1: Research Design/Methods Outline – 10 pts. You will next prepare an outline of your project research design. As appropriate to the type of PDA proposed, this includes clearly stated research questions, programming objectives, or mapmaking objectives.</td></tr>
<tr><td>PDA Document 2: Expanded StoRI – 10 pts. This is a further detailing of the StoRI, written according to a specific format.</td><td>PDA Document 2: Background Research Reading Assignment – 10 pts. In this two part assignment, you will begin by proposing research articles or books that support your proposed research design/methods. Following approval of these choices, you will prepare notes that paraphrase/summarize these articles for incorporation in your methods chapter.</td></tr>
<tr><td>PDA Document 3: Revised Expanded StoRI – 10 pts. After receiving feedback from the instructor and your writing faculty, you will revise and resubmit your Expanded StoRI.</td><td>PDA Document 3: Report on Data Exploration – 10 pts. This step requires you to acquire and explore the data you need for your thesis work. As appropriate to the type of PDA proposed, this task may include importing datasets to ArcGIS or other software and completing initial analysis, programming activities, and/or defining fieldwork procedures (if required). You will produce a short report according to a structure format provided.</td></tr>
<tr><td>PDA Document 4: Topic Prospectus – 30 pts. The prospectus sketches the goal/ problem/ question motivating your PDA, supported by a literature review. You will write and revise this document several times with input from the instructor and your writing faculty.</td><td>PDA Document 4: Drafts of First Three Chapters (Ch. 1 Introduction, Ch. 2 Related Work, and Ch. 3 Data and Methods) – 3 chapters for a total of 30 pts. Building on all of the input you have received during this term, you will prepare drafts of the first three chapters of your thesis so that you are ready to begin doing the hands-on work next term in 594b.</td></tr>
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Prospectus Track	*Proposal Track*
Research Question/Design Jury (Jury 1) – Graded Pass or Fail. Your revised Expanded StoRI (prospectus track) or revised Research Design Outline (proposal track) will be submitted to a committee of faculty. Pass indicates that in the opinion of the faculty your research questions or programming objectives are viable to answer within your skill set and the timeframe allotted to the thesis. Students must secure a passing grade to proceed to Jury 2.	
Data Needs Jury (Jury 2) - Graded Pass or Fail. Your draft prospectus (prospectus track) or data report (proposal track) will be submitted to a committee of faculty members for review and comment. Pass indicates that in the opinion of the faculty the data type and quality that you need to implement the research design are available and that your proposed project is feasible.	
Slide Presentation – 5 pts. You will create and deliver a slide presentation to the class via Adobe Connect to visually and orally communicate your end-of-term progress towards your topic prospectus or thesis proposal.	
Abstract – 5 pts. A clear abstract is absolutely critical to communicating your intention for your thesis project to the entire USC SSI and SSI-affiliated faculty.	

Careful planning and a serious, consistent commitment will be required for you to successfully navigate the various deliverables in this and other GIST courses. The following table summarizes the SSCI 594a course assignments and their point distribution.

	Prospectus Track		**Proposal Track**	
Assignments	**Number**	**Total Points**	**Number**	**Total Points**
Resume Assignment	1	2	1	2
Introduction	1	2	1	2
Thesis Sample Discussion	1	5	1	5
Research Article Précis	1	6	1	6
Short Summaries	3	15	1	5
Peer Review of Prospectus			1	10
PDA Doc 1	1	10	1	10
PDA Doc 2	1	10	1	10
PDA Doc 3	1	10	1	10
PDA Doc 4	1	30	1	30
Slide Presentation	1	5	1	5
Abstract	1	5	1	5
Totals	**13**	**100**	**12**	**100**

The grade breaks across the 100 possible points for this course will be as follows. Note that for graduate work, C- is a failing grade. Values indicate the lower end of each letter range to the left.

Break	93	90	87	83	80	77	73	0
Grade	A |	A- |	B+ |	B |	B- |	C+ |	C |	C-

Finally, it is important to note from the outset that: (1) late postings and assignments will be docked one point, and no grade will be given for postings or assignments turned in more than

one week late; and (2) if the topic prospectus or drafts of Chapters 1-3, abstract, and slide presentation are not delivered by 5:00 p.m. on the last day of classes for review by the committee on thesis committee formation, the student may not obtain a thesis committee. This likely would result in additional semesters of thesis work and delaying and/or failing graduation with an M.S. degree.

Requirements

Textbooks – The following three textbooks are **required** for this class; these are available from the USC Bookstore or online outlets such as Amazon. Please purchase these right away because reading assignments from these are required in Week 2 of the course.

1. Strunk, W. and E.B. White. 2000. *The elements of style*. 4rd ed. Needham Heights, MA: Allyn and Bacon. (~$7 paper; ISBN-10: 0205313426; Referred to as "S&W" below)
2. Turabian K.L, W.C. Booth, G.G. Colomb, and J.M. Williams. *A manual for writers of research papers, theses, and dissertations*. 8th ed. Chicago, IL: University of Chicago Press. (~$10 paper; ISBN-13: 978-0-226-81638; Referred to as "T." below)
3. Montello, D.R. and P.C. Sutton 2013. *An introduction to scientific research methods in geography and environmental studies*. 2nd ed. Los Angeles, CA: Sage. (~$39 paper; ISBN-10**:** 1412902878; Referred to as "M&S" below)

Readings – The above materials will be supplemented with readings from the following books and academic journals, if they are not available from the USC library online, they will be posted on Blackboard under the Readings tab. These additional readings will include:

- Montello, D.R. 2001. Scale in geography. In *International encyclopedia of the social and behavioral sciences*, ed. N.J. Smelser and P.B. Baltes, 13501-13504. Oxford, UK: Pergamon Press.

Technology – There are several technology requirements:

- Every student must have a computer with a fast Internet connection (DSL at a minimum).
- Every student MUST have a functional webcam for use whenever a presentation or meeting is scheduled.

Communications – This is a distance-learning course, but in a departure from other courses in the GIST program, many of our interactions, listed below as "Seminars," will be synchronous (at the same time). However, all assignments given and all materials to be handed in will still be handled via Blackboard. I will also create and monitor Blackboard discussion forums through which we can discuss issues, assignments, and exercises as needed.

Please be sure that you read as soon as possible all e-mail sent from Blackboard or from me. Also, if you don't regularly use your USC e-mail account, please double check to be sure that mail sent from both the USC blackboard accounts and my USC account (noted above) to your USC account is forwarded to an address you use regularly and does not go into your junk mail!

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

Due to the asynchronous nature of this course, it is each student's responsibility to stay informed and connected with others in our course. In addition to email, you are expected to login to Blackboard regularly to check for Announcements there.

Workload – This is a two credit, one semester course. Frankly, however, as you will aim to accomplish nearly half of your thesis work in this semester you should plan for a greater workload in the upcoming 15 weeks than would normally correspond to a 2-unit course. Students should expect to spend an average of 10-15 hours per week and an average of 1-2 hours per week in Adobe Connect sessions in weeks where Seminars are listed. I will schedule several different times to help fit into your weekday, evening, and weekend availability.

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://scampus.usc.edu/files/2013/05/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/.

Important Administrative Dates

8/25:	Fall semester classes begin
9/1:	Labor Day, university holiday
9/12:	Last day to register and add classes, change enrollment option to Pass/No Pass or Audit, purchase or waive tuition refund insurance or drop a class without a mark of "W," and receive a 100% refund
11/14:	Last day to drop a class with a mark of W
11/26-29:	Thanksgiving recess, university holiday
12/5:	Fall semester classes end
12/18-1/11:	Winter Recess

Tentative schedule

Below is the proposed schedule. Unless otherwise noted, all assignments are due by *11:59 pm Pacific Time on the Sunday* at the end of the week in which they are listed on the syllabus. Numbers in ( ) are points given for each assignment.

Week	Starts	Theme	Readings	Seminars and meetings	Assignments due Sunday		Juries
					Prospectus Track	Proposal Track	
1	25-Aug	Introduction to research	M&S Ch.1, Oulton (2012) thesis		Resume; Introduction; Thesis Sample Discussion (9)		
2	1-Sep	Guidelines for writing well	S&W all, T&al. Ch.1, Montello (2001)	Seminar 1: MS-Office Tools, Discuss Montello and S&W	Précis (6)	Peer Review of Prospectus (Wed), Revised Prospectus (Sun) (10)	
3	8-Sep	Thinking about research	T&al. Ch. 2 -4 M&S Ch. 2		PDA Doc 1: Initial StoRI (10)	Précis (6)	
4	15-Sep	Presenting a topic, How to write a good report	T&al. Ch .5-14, videos	Seminar 2: GIST Citation Style & Tools, Discuss progress Writing Meeting (Proposal)	Short Summary 1 (5)	PDA Doc 1: Draft Research Design/Methods Outline (10)	
5	22-Sep	Improving a report	T&al. Ch. 10-14	Writing Meeting (Prospectus)	Revised Initial StoRI	Revised Research Design/Methods Outline	
6	29-Sep	Faculty research themes and styles	M&S Ch.3 Murray (1991), GIST Thesis	Seminar 3: Getting to the next step	Short Summary 2 (5)	Short Summary 1 (5)	Proposal Jury 1
7	6-Oct	Citations and references	T&al. Ch. 15, 17-19, AAG guide		PDA Doc 2: Expanded StoRI (10)	PDA Doc 2: Proposal Reading Assignment & Revised Methods Outline (10)	
8	13-Oct	Getting started with research	M&S Ch. 4-7, GIST Thesis	Seminar 4: Discuss status	Short Summary 3 (5)	PDA Doc 3: Report on Data Exploration (10)	
9	20-Oct	Research design	M&S Ch. 8	Writing Meeting (Prospectus)	PDA Doc 3: Revised Expanded StoRI (10)	Jury 2 Submission	
10	27-Oct	Sampling	M&S Ch. 9			PDA Doc 4a: Draft Methods Chapter	Prospectus Jury 1 Proposal Jury 2
11	3-Nov	Analysis	M&S Ch 10			PDA Doc 4b & c: Draft Related Work Chapter, Intro Chapter, Abstract	
12	10-Nov	Analysis	M&S Ch.11		PDA Doc 4: Prospectus Draft, Draft Abstract	Revised Methods Chapter and Slide Presentation	
13	17-Nov	Validating research & ethics	M&S Ch.12-14	Student Presentations Writing Meeting (Proposal)		PDA all: Thesis Proposal Draft	Prospectus Jury 2
14	24-Nov	(Thnksg 11/26-29)			Slides (5)	Slides (5)	
15	1-Dec	Final documents submitted		Writing Meeting (Prospectus)	Final Prospectus & Abstract (30+5)	Final Thesis Proposal with Abstract (30+5)	