

# **GEOGRAPHY & GEOINFORMATION SCIENCE 415**

## **Seminar in Geography**

### **Spring 2018**

## **Syllabus**

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## **1. INSTRUCTOR**

**Instructor:** Dr. Matt Rice

**Term:** Spring 2018

**Class-Section (CRN):** GGS 415- 001 (11076)

**Date-Time:** Wednesdays, 1:30-4:10pm

**Classroom:** GMU Exploratory Hall, Room 2103

**Faculty Office:** GMU Exploratory Hall, Room 2202

**Faculty Office Hours:** Wednesday, 4:00-5:00pm

**Instructor Email:** [rice@gmu.edu](mailto:rice@gmu.edu)

**Virtual Office Hours:** I can be reached via email to arrange office hours via phone or skype ([m.t.rice](mailto:m.t.rice)), and I'll be available via Blackboard Collaborate Sessions on a regular basis. I will respond to all student email within 24 hours, and even more quickly between Monday morning and Friday evening. Students must activate and use their GMU campus email to facilitate contact. Please use a subject line prefix tag: [GGS 415] and send general GIS and troubleshooting questions to the TA first. If the question or concern is administrative, contact me first.

## 2. COURSE DESCRIPTION

This course is designed as a disciplinary **capstone seminar on geography**, and a GMU **writing intensive course**. The course focuses on the associated fundamental scientific principles, theories, and techniques of the discipline, including geographic information systems, quantitative analysis, research design, and research paper writing. Students will learn about the discipline of geography, its history, and its contemporary practice. Students will learn how to design and carry out a large research project. Student will learn how the Earth's features are modeled and stored in a computer information system. Students will learn how to use geographic information systems to answer geographic research questions and how to perform simple analytical procedures using geographic data. The writing intensive nature of the class means that students will devote time to successfully complete several written assignments of at least 3500 words, with feedback on drafts, revisions, editing, formatting, and citations. Students will learn modes and methods of academic research, as well as the basic elements of the academic peer-review process.

Credit Hours for this course: 3

## 3. COURSE PREREQUISITES

Course prerequisites include GGS 300 (Quantitative Methods for Geographic Analysis) and GGS 310 (Introduction to Digital Cartography). Some students may find GGS 110 (Maps and Mapping) and GGS 311 (Intro. To GIS) useful, but they are not required.

## 4. COURSE EXPECTATIONS

1. Students are expected to attend class each week and to come to class prepared, having read the assigned reading material in advance.
2. This class requires dedication and organization. Proper preparation is expected every week. You are expected to log in to Blackboard each week and complete the assignments and activities on or before the due dates
3. Students must check their GMU email messages on a daily basis for course announcements, which may include reminders, revisions, and updates.
4. It is expected that you will familiarize yourself with and adhere to the Honor Code. Student members of the George Mason University community pledge not to cheat, plagiarize, steal, and/or lie in matters related to academic work.
5. It is essential to communicate any questions or problems to me promptly.

## 5. LEARNING COMMUNITY

This course is taught both in person and via Blackboard Courses (Log into <http://mymason.gmu.edu>, select the Courses Tab, and the course can be found in the Course List).

This course may use Blackboard Collaborate sessions. **In order to participate, you must be at a computer with a microphone** and optionally, a video camera.

In our online learning community, we must be respectful of one another. Please be aware that innocent remarks can be easily misconstrued. Sarcasm and humor can be easily taken out of context. When communicating, please be positive and diplomatic. I encourage you to use netiquette during our online discussions.

## 6. LEARNING OUTCOMES

By the end of this course, students will be able to:

1. Demonstrate a broad knowledge-base of the fundamental scientific theories, principals and techniques of the discipline of geography.
2. Demonstrate an understanding of the societal context of geographic practice, and articulate important historical events, contemporary developments, and future trends that shape the discipline of geography.
3. Apply and demonstrate key concepts of spatial analysis using commercial GIS software.
4. Given a specific geographic research problem, identify problem parameters, characterize data needs, assemble data, and perform analysis.
5. Effectively communicate results of analysis using written form, as well as with maps and graphics produced with GIS.
6. Develop the ability to edit and revise written documents through feedback, toward a goal of a final written research paper.

## 7. TECHNOLOGY REQUIREMENTS & EXPECTATIONS

### General Hardware:

You will need access to a Windows or Macintosh computer with at least 2 GB of RAM and to a fast and reliable broadband Internet connection (e.g., cable, DSL). A larger screen is recommended for better visibility of course material. You will need speakers or headphones to hear recorded content and a headset with a microphone is recommended for the best experience. For the amount of Hard Disk Space required to take a distance education course consider and allow for: **1.** the storage amount needed to install any additional software and **2.** space to store work that you will do for the course. If you are considering the purchase of a new computer, please go to <http://compstore.gmu.edu/Specials/BTS2012/2012TechGuide.pdf> to see recommendations.

### Software:

Many courses use Blackboard as the learning management system. You will need a browser and operating system that are listed compatible or certified with the Blackboard version available on the myMason Portal. See [supported browsers and operating systems](#). Log in to [myMason](#) to access your registered courses. Some courses may use other learning management systems. Check the syllabus or contact the instructor for details. Online courses typically use [Acrobat Reader](#), [Flash](#), [Java](#) (Windows), and [Windows Media Player](#), [QuickTime](#) and/or [Real Media Player](#). Your computer should be capable of running current versions of those

applications. Also, make sure your computer is protected from viruses by downloading the latest version of Symantec Endpoint Protection/Anti-Virus software for free at <http://antivirus.gmu.edu>.

Students owning Macs or owning computer running Linux should be aware that some courses may use software that only runs on Windows. You can set up a Mac computer with Boot Camp or virtualization software so Windows will also run on it. Watch [http://support.apple.com/kb/VI54?viewlocale=en\\_US](http://support.apple.com/kb/VI54?viewlocale=en_US) about using Windows on a Mac. Computers running Linux can also be configured with virtualization software or configured to dual boot with Windows.

Note: If you are using an employer-provided computer or corporate office for class attendance, please verify with your systems administrators that you will be able to install the necessary applications and that system or corporate firewalls do not block access to any sites or media types.

## **Geographic Information Systems Software**

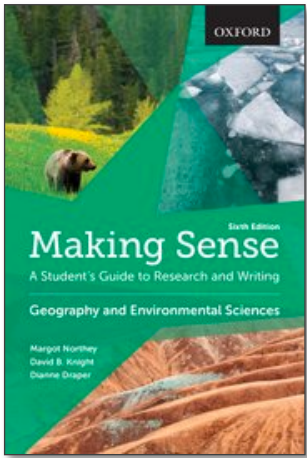
You will need to be able to use a computer to participate in the course and complete the required work. You will not be required to purchase GIS software, but will have a student GIS evaluation version provided for you. **You must install and use this student GIS software to complete the course, or otherwise have access to ArcGIS v.10.5.1.** This will require administrator-level access and control of a Windows PC computer that you must use to complete the GIS exercises. If you have convenient, frequent access to a computer with ESRI's ArcGIS 10.3 installed and running, you may be able to this computer for the GIS exercises. **Successfully installing the student evaluation version of this software or otherwise gaining access to a computer with ESRI's ArcGIS 10.5.1 is a requirement of this course.**

The course will be taught with the help of Blackboard, accessed through <https://mymasonportal.gmu.edu>. Submission of assignments, participation in discussions, and all assessment testing will be done with Blackboard.

Lectures will be delivered in person as well as through narrated, pdf slides, created using MS PowerPoint. Each lecture can be viewed by opening the pdf document in Adobe Acrobat.

## **8. REQUIRED & RECOMMENDED TEXTBOOKS**

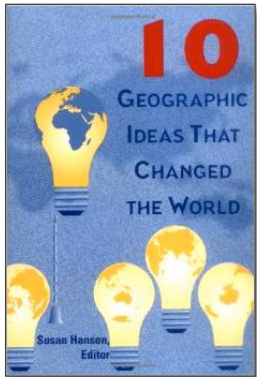
*Textbooks must be purchased and available prior to the first day of class (January 24<sup>th</sup>)*



**REQUIRED**

**Making Sense in Geography and Environmental Sciences: A Student's Guide to Research and Writing, 6<sup>th</sup> ed.**  
Margot Northey, David B. Knight, and Dianne Draper (eds.). ISBN: 978-0-19-544582-4,  
<https://global.oup.com/academic/product/making-sense-in-geography-and-environmental-sciences-9780195445824?cc=us&lang=en&#>

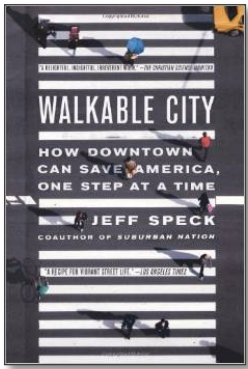
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**REQUIRED**

**Ten Geographic Ideas that Changed the World**, by Susan Hanson (editor). Rutgers University Press, 1997.  
ISBN: 9780813523576, <http://www.amazon.com/Geographic-Ideas-That-Changed-World/dp/0813523575>

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## RECOMMENDED

**Walkable City: How Downtown Can Save America, One Step at a Time**, by Jeff Speck. North Point Press (Nov. 12, 2013), ISBN: 9780865477728 <http://www.amazon.com/Walkable-City-Downtown-Save-America/dp/0865477728/>

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## 9. PERFORMANCE-BASED ASSESSMENTS

You will achieve these goals through viewing the course lectures, reading the textbook, preparing and writing reading summaries and reading reflections, participating in online class discussions, working through GIS tutorials, completing lab exercises, and taking 2 assessment exams at midterm and during finals week.

- a. Written Assignments:** Each student will prepare several 1-page (200-300 word) written assignments based on the textbook readings and from the associated lectures. The written assignments will be graded on both content and form, and collectively will be worth 10% of the final grade. See the Written Assignment Grading Rubric below.
- b. Class Discussions and Participation:** Each student will participate in student-led class discussions, both in class and via Blackboard discussion tools. The class discussions will be based on course material and assigned readings. The class will also participate in geo-mentoring and professional development activities that will be integrated with course material. These activities will be collectively worth 10% of the final grade.
- c. Methodology Exercises:** There will be 4 separate GIS-based methodology assignments, focused on geographic data collection, analysis, graphical presentation, cartographic methods, and general world geography. These exercises will be worth 25% of the final grade.
- d. Examinations:** There will be 1 final examination, which will be completed outside class during finals week. The exam will be worth 15% of the final grade.
- e. Final Research Paper & Presentation:** Students will prepare a final research paper for the course, which will be due on the final day of class. This paper will have several deliverables throughout the term, each of which will be graded and will contribute to the student's final grade. The process of writing the course research paper will include the development of a pre-proposal, article abstracts, a formal project proposal, data checks, map checks, and a full-length draft of at least 3500 words. Feedback on this full-length draft will contribute to a substantially revised final

paper of at least 3500 words, which will be due at the end of the term. The research paper and presentation will be worth 40% of the grade.

## 10. GRADING SUMMARY

Students will be evaluated in the following areas, with the following grade weighting:

Written Assignments (10%)  
Class Discussions (10%)  
Methodology Exercises (25%)  
Examination (15%)  
Final Research Paper (40%)

Grades are assigned using a standard scale:

A+	> 99
A	93 – 98.9
A-	90 – 92.9
B+	87 – 89.9
B	83 – 86.9
B-	80 – 82.9
C+	77 – 79.9
C	73 – 76.9
C-	70 – 72.9
D	60 – 69.9
F	0 – 59.9

## 11. RUBRICS

### Methodology Exercises

Each methodology exercise will be worth 100 points, with 1 point for each substantive answer indicated in the assigned problem set, or other significant methodological step. With regard to numerical answers, a complete answer with the relevant units will be worth full credit for that problem. Students start with 100 points and receive a 1 point deduction for incorrect answers or incorrect execution of a method, and a ½ point deduction for minor errors such as a lack of units where required. Incorrect or incomplete answers not including an omission of units (ft., yards, acres, miles, meters, etc.) will receive a full point deduction. Methodology exercises will have a full written evaluation and specific indicators of reasons for point deductions. Methodology exercises should be submitted through Blackboard in Microsoft Word format or other relevant format as specified in the assignment. Cartographic work must be submitted in PDF format in highest quality.

### Written Assignments

#### (1) Instructions:

Each student will prepare written assignments based on a set of readings, web material, journal articles, class lectures, and other assigned material. The written assignments will be evaluated and assessed by the Instructor and Teaching Assistant using the standard rubric below. Written assignments should be a concise, comprehensive synthesis of the assigned material, and can include quotes, references, and relevant personal experiences or anecdotes. The length of a typical written assignment will be 200-300 words, unless otherwise indicated.

**(2) Rubric** (Adapted from <http://ctfe.gmu.edu/teaching/grading/sample-rubric-for-grading-a-research-paper/> )

<b>Written Assignment Rubric</b>				
<b>Criteria</b>	<b>Outstanding</b>	<b>Good</b>	<b>Fair</b>	<b>Poor</b>
<b>Organization</b>	Written Assignment includes a short introduction, a body, and a short synopsis, and is well organized	The Written Assignment is missing an introduction or synopsis and has minor organizational errors	The Written Assignment is missing an introduction and a synopsis and is poorly organized	The Written Assignment lacks coherent organization and structure and is missing an identifiable introduction, body, and synopsis
<b>Length</b>	200-300 words	Minor length deviation (<20%)	Major length deviation (20%-40%)	Length does not adhere or approach length requirements (> 40% deviation)
<b>Syntax</b>	Correct grammar and syntax	Minor syntax, grammar, and spelling errors	Multiple syntax, grammar, and spelling errors throughout Written Assignment	Written Assignment is replete with syntax, grammar, and spelling errors
<b>Research and Content</b>	The Written Assignment contains relevant material from the lecture and assigned content material, and extends the material through a well-presented synthesis	The Written Assignment contains material from the lecture and assigned content, with minor deficiencies, omissions, or irrelevant content	The Written Assignment only partially relates to the assigned content and lecture material and contains much irrelevant content	The Written Assignment does not relate to the lecture or readings at all
<b>Points</b>	<b>90-100</b>	<b>75-90</b>	<b>50-75</b>	<b>50 or less</b>

**Final Research Paper**

**(1) Instructions:**

Each student will prepare a final research paper based on a pre-defined research proposal, literature review, analysis, synthesis, ancillary material, journal articles, class lectures, and other assigned material. The research paper will be evaluated and assessed by the Instructor and Teaching Assistant using the standard rubric below. The research paper should be a comprehensive synthesis of the proposed topic and can include citations, quotes, illustrations, maps, graphics, images, references, and any other relevant material. The length of the proposal will be 500-800 words, and the final paper will be at least 3500 words, or approximately 10-12 pages, double spaced, exclusive of graphics, maps, images, charts, tables, and references.



**(2) Rubric** (Adapted from <http://ctfe.gmu.edu/teaching/grading/sample-rubric-for-grading-a-research-paper/> )

<b>Research paper Rubric</b>				
<b>Criteria</b>	<b>Outstanding</b>	<b>Good</b>	<b>Fair</b>	<b>Poor</b>
<b>Organization</b>	Research paper includes a relevant title, abstract, introduction, conceptual framework, literature review, methodology, results and conclusions, future work, and reference sections. The content is well organized.	The research paper is missing a section and has minor organizational errors.	The research paper is missing several section and is poorly organized.	The research paper lacks coherent organization and structure and is missing an identifiable structure.
<b>Length</b>	3500 -4500 words	Minor length deviation (<15%)	Major length deviation (15%-30%)	Length does not adhere or approach length requirements (> 30% deviation)
<b>Syntax</b>	Correct grammar and syntax	Minor syntax, grammar, and spelling errors	Multiple syntax, grammar, and spelling errors throughout Research paper	Research paper is replete with syntax, grammar, and spelling errors
<b>Research and Content</b>	The research paper is based on an approved, well-written research proposal. The final paper contains relevant content addressing the proposed area of research. The final paper uses appropriate analytical methods and relevant maps & graphics.	The research paper contains relevant material, but deviates in some way from the proposal and lacks relevance in content. The research paper is missing some relevant analysis.	The research paper only partially relates to the proposed research, and many of the research methods are inappropriate, incorrectly applied, or missing.	The research paper does not relate to the proposal and lacks appropriate research analysis and content.
<b>Points</b>	<b>90-100</b>	<b>75-90</b>	<b>50-75</b>	<b>50 or less</b>

## 11. COURSE SCHEDULE

You are responsible for keeping up with the textbook readings, lectures, Written Assignments, discussions, GIS tutorials/methodology exercises, and assessments. No makeup exams will be available. Readings assigned for the week & session should be completed before the scheduled date. **Any changes to this schedule will be announced via email and posted to the course Blackboard page.**

	<u>Dates</u>	<u>Hanson (10 ideas)</u>	<u>Readings (Northey et al.)</u>	<u>Regional Focus</u>	<u>Methodology Assignments</u>	<u>Course Project &amp; Written Assignments</u>
<b>Week 1</b>	Jan 24	<i>Overview and Introduction, Syllabus Review</i>				
<b>Week 2</b>	Jan. 31	1	1. Thinking and Writing	United States	GIS Check (in-class) (#1)	
<b>Week 3</b>	Feb. 7	2	2. Searching and Researching	United States		Library Research (attend)
<b>Week 4</b>	Feb. 14	3	3. Writing and Reading Lecture Notes	United States	Map Assignment (#2): Choropleth Map of US	
<b>Week 5</b>	Feb. 21	3 (cntd)	3. Writing and Reading Lecture Notes (continued)	United States		Written Assignment 1: Personal Travel Narrative
<b>Week 6</b>	Feb. 28	4	4. Writing a Report on a Book or an Article	North America	Map Assignment (#3) Regions (2) + stat. graphic	
<b>Week 7</b>	Mar. 7	4 (cntd)	4. Writing a Report on a Book or an Article (continued)	Europe		
<b>Week 8</b>	Mar. 14	<b>Spring Break (March 12 – 18)</b>				
<b>Week 9</b>	Mar. 21	5	5. Writing an Essay	Europe		Written Assignment 2: Pre- proposal due
<b>Week 10</b>	Mar. 28	6	6. Writing a Proposal, Research Paper, and Thesis	Europe		Written Assignment 3: Article Abstracts
<b>Week 11</b>	Apr. 4	7	7. Quotations and Documentation	Africa		Written Assignment 4: Project Proposal due
<b>Week 12</b>	Apr. 11	8	11. Doing Field Work and Writing about It	Africa	Project data check due	
<b>Week 13</b>	Apr. 18	9	12. Illustrating Your Work	Latin America	Maps & graphics check due (#4)	
<b>Week 14</b>	Apr. 25	10	13. Words: Gender, Race, and Other Sensitivities	Latin America		Final Course Paper (draft) due
<b>Week 15</b>	May 2		14. Writing with Style, 15 Grammar and Usage, 16. Punctuation	Asia		Final Course Paper due
<b>Week 16</b>	May 9		<b>Final Exam</b>			

## 12. STUDENT EXPECTATIONS

### Academic Integrity

It is expected that students adhere to the [George Mason University Honor Code](#) as it relates to integrity regarding coursework and grades. The Honor Code reads as follows:

*“To promote a stronger sense of mutual responsibility, respect, trust, and fairness among all members of the George Mason University community and with the desire for greater academic and personal achievement, we, the student members of the University Community have set forth this: Student members of the George Mason University community pledge not to cheat, plagiarize, steal and/or lie in matters related to academic work.”*

More information about the Honor Code, including definitions of cheating, lying, and plagiarism, can be found at the Office of Academic Integrity website at <https://oai.gmu.edu>

Discussion of work among students is encouraged. Collaboration and active participation in group discussions is important, but final work should reflect your own thinking and all submitted assignments **must be in your own words and reflect your individual work**. I reserve the right to use GMU-sanctioned tools for detecting and documenting plagiarism. If you have questions about what constitutes plagiarism, please ask me.

### MasonLive/Email (GMU Email)

Students are responsible for the content of university communications sent to their George Mason University email account and are required to activate their account and check it regularly. All communication from the university, college, school, and program will be sent to students solely through their Mason email account. [See <http://masonlive.gmu.edu/>]

### Patriot Pass

Once you sign up for your Patriot Pass, your passwords will be synchronized, and you will use your Patriot Pass username and password to log in to the following systems: Blackboard, University Libraries, MasonLive, myMason, Patriot Web, Virtual Computing Lab, and WEMS. [See <https://password.gmu.edu/index.jsp>].

### University Policies

Students must follow the university policies. [See <http://universitypolicy.gmu.edu>].

### Responsible Use of Computing

Students must follow the university policy for Responsible Use of Computing. [See <http://universitypolicy.gmu.edu/policies/responsible-use-of-computing>].

## 13. DIVERSITY

Diversity is an important in an academic environment, and is a priority for George Mason University. See: <http://ctfe.gmu.edu/professional-development/mason-diversity-statement/>

*“George Mason University promotes a living and learning environment for outstanding growth and productivity among its students, faculty and staff. Through its curriculum, programs, policies, procedures, services and resources, Mason strives to maintain a quality environment for work, study and personal*

*growth. An emphasis upon diversity and inclusion throughout the campus community is essential to achieve these goals. Diversity is broadly defined to include such characteristics as, but not limited to, race, ethnicity, gender, religion, age, disability, and sexual orientation. Diversity also entails different viewpoints, philosophies, and perspectives. Attention to these aspects of diversity will help promote a culture of inclusion and belonging, and an environment where diverse opinions, backgrounds and practices have the opportunity to be voiced, heard and respected."*

## **14. RELIGIOUS HOLIDAYS**

I am generally aware of some religious holidays and observations, and will help minimize difficulties for students of different faiths in terms of scheduling course assignments. It is the student's responsibility to speak to me in advance should their religious observances impact their participation in class activities and assignments. [See: <http://ulife.gmu.edu/calendar/religious-holiday-calendar/> ]

## **15. SPECIAL NEEDS**

If you have a documented learning disability or other condition that may affect academic performance you should: **1)** make sure this documentation is on file with the Office of Disability Services (SUB I, Rm. 2500; 993-2474; <http://ds.gmu.edu/>) so that they can make a determination about the accommodations you need; and **2)** communicate with me to discuss your accommodation needs or have the Office of Disability Services do so. I can provide proper accommodations with documentation and professional advice from the Office of Disability Services.

## **16. STUDENT SERVICES AND UNIVERSITY RESOURCES**

### **University Libraries**

The George Mason University Libraries provides resources for distance education students. For access to these resources and services, see <http://library.gmu.edu/for/online> .

### **Writing Center**

The George Mason University Writing Center staff provides a variety of resources and services (e.g., tutoring, workshops, writing guides, handbooks) intended to support students as they work to construct and share knowledge through writing. [See <http://writingcenter.gmu.edu>]. You can now sign up for writing assistance through the Office of Digital Learning's Online Writing Center [see <http://odl.gmu.edu/resources/writing-center/> ]

### **Counseling and Psychological Services**

The George Mason University Counseling and Psychological Services (CAPS) staff consists of professional counseling and clinical psychologists, social workers, and counselors who offer a wide range of services (e.g., individual and group counseling, workshops and outreach programs) to enhance students' personal experience and academic performance [See <http://caps.gmu.edu>].

### **Family Educational Rights and Privacy Act (FERPA)**

The Family Educational Rights and Privacy Act of 1974 (FERPA), also known as the "Buckley Amendment," is a federal law that gives protection to student educational records and provides students with certain rights. [See <http://registrar.gmu.edu/ferpa/> ]