

# **GEOGRAPHIC THOUGHT AND RESEARCH DESIGN (GEOG 501)**

New Mexico State University

Department of Geography

**FALL 2016**

Tue, 13:00-15:30; Breland Hall 194

**Professor: Dr. Michaela Buenemann**

Office: Breland Hall #139

☎ (575) 646-6493

✉ [elabuen@nmsu.edu](mailto:elabuen@nmsu.edu)

Advising Hours: Tue, 10:15-11:30 & 15:30-17:00; Wed, 10:00-12:00 & 13:00-16:00; Thu, 10:15-11:30 & 14:00-15:00. To ensure my time is all yours when we meet, please sign up for advising hours on the sign-up sheet next to my office door or schedule an appointment with me.

## **COURSE DESCRIPTION**

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The overall goal of this course is to help you become an educated geographer and scholar by introducing you to contemporary geographic thought and research design. Geographic thought and research design are intricately linked. To properly engage in geographic research, it is critical to address philosophical issues regarding ontology (the nature of reality) and epistemology (how we go about understanding it); to consider the strengths and weaknesses of different paradigms (bodies of theory we subscribe to in our practice); and to make well-informed decisions with respect to research methodology and research methods. As you will learn to appreciate in this course, the intellectual landscape of geography is quite exciting and both vast and fragmented.

Geographers work in different subfields of geography (e.g., human geography, physical geography, and spatial science) and often apply very different philosophical and methodological approaches to geographic research. Thus, even though their research tends to be the most influential when they work together, they are frequently unable to do. Upon successful completion of this course, you will be in the position to counteract this problem. That is, while you will ultimately specialize in a particular aspect of geography, this course will allow you to synthesize information offered by different geographic perspectives and to collaborate with geographers from across the spectrum of the discipline. You will learn to think geographically, critically, and spatially.

You will learn to answer questions like these: How is geography related to other disciplines and how it is different? What key concepts do geographers share? What ontologies and epistemologies do geographers bring to their research? What kinds of questions do geographers ask? What kinds of methods do geographers use in their research? What are the assumptions, strengths, and weaknesses of the different philosophical and methodological approaches geographers use? Where do you fit in, in all this? By the end of this class, answers to these questions will help you develop your own quality geographic research project.

## STUDENT LEARNING OUTCOMES

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Upon completion of this course, you should be able to:

1. compare, contrast, and critically evaluate contemporary philosophical and methodological approaches in geography;
2. create diverse scholarly products (e.g., literature review and research proposal); and
3. collaborate with others to facilitate productive discussions of geographic thought.

## COURSE STRUCTURE

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This is a **fast-paced course with a steep learning curve and lots of readings and writing assignments**. In order for you to become an educated geographer and scholar as described in the Course Content section above, you need to always keep up with the class and, consequently, manage your time carefully. I will do my very best to **FACILITATE LEARNING** (i.e., to help you achieve the learning outcomes stated above by structuring the course through readings, raising questions, directing discussions, exchanging ideas, and providing guidance on assignments, for example). **YOU** are **RESPONSIBLE** for **LEARNING ITSELF**.

## COURSE MATERIALS

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**Website.** Materials for this course (e.g., lectures, labs, grades) can be found at <https://learn.nmsu.edu/>. To access course materials, simply log in to your Canvas account and click the link for this course. The website is a key element of this course and you are required to review its contents regularly. If you encounter problems related to the website, please contact us immediately.

**Readings.** You need to acquire three books for this course and have three options concerning the book itself: you purchase 1) the required books, 2) earlier editions of the books, or 3) comparable books of your own choice. If you choose books other than the required books, you are responsible for correlating the content of your chosen book with the required reading assignments. Note that you may be able to check out the books from a library and that you may be able to purchase the books for discounted prices at used bookstores, thrift stores, or online at amazon.com, barnesandnoble.com, or textbookland.com.

<b>Required</b>	Gomez, B., and J. P. Jones. 2010. Research methods in geography: a critical introduction. 1st ed. Chichester, UK: Wiley-Blackwell.
	Cresswell, T. 2013. Geographic thought: a critical introduction. 1st ed. Chichester, UK: Wiley-Blackwell.
	Inkpen, R., and G. Wilson. 2013. Science, philosophy and physical geography. 2nd ed. London, UK: Routledge.
<b>Optional</b>	Gregory, D., R. Johnston, G. Pratt, M. Watts, and S. Whatmore. 2009. The dictionary of human geography. 5th ed. Chichester, UK: Wiley-Blackwell.
	Thomas, D. S. G., and A. Goudie. 2000. The dictionary of physical geography. Malden, USA: Blackwell Publishing.

Additional readings, mostly peer-reviewed journal articles, will be provided to you on the course website.

**E-mail.** Official NMSU communication to you will come through your NMSU e-mail account. Access your NMSU e-mail frequently, or forward it to your current use address, as your success in college may ride on your ability to respond quickly. To guarantee a response to your emails, always a) begin your emails with a proper greeting that includes the name of the person/s you are emailing; b) conclude with a closing that includes your name; and c) use proper spelling, grammar, and punctuation. Unless I am away from the office with limited access to email, I will respond to your emails within one business day. Similarly, I expect you to respond to my emails in a timely manner.

## GRADING

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Your final course grade is determined by the amount of points you accrue out of a total possible 1000 points.

<b>Critical essays (× 11):</b>	220 points	22 %	} <b>1,000 Points (100%)</b>
<b>Literature review (× 1):</b>	200 points	20 %	
<b>Literature review presentation (× 1):</b>	50 points	5 %	
<b>Research proposal (× 1):</b>	200 points	20 %	
<b>Research proposal presentations (× 1):</b>	50 points	5 %	
<b>Student-led discussion (× 2):</b>	100 points	10 %	
<b>Class participation (× 1):</b>	180 points	18 %	

Your final course letter grade will be based on the following scale:

<b>A (4.0)</b>	95-100%	<b>B (3.0)</b>	84-86%	<b>C (2.0)</b>	74-76%	<b>D (1.0)</b>	64-66%
<b>A (4.0)</b>	90-94%	<b>B- (2.7)</b>	80-83%	<b>C- (2.0)</b>	70-73%	<b>D- (1.0)</b>	60-63%
<b>B+ (3.3)</b>	87-89%	<b>C+ (2.3)</b>	77-79%	<b>D+ (1.0)</b>	67-69%	<b>F (0)</b>	< 60%

Individual assignments and tests will not be curved (↑ or ↓). We *may* make adjustments of the final letter grade after an assessment of the class curve at the end of the term. We consider class participation, attendance, and improvement over the term as justification for discounting a grade that is uncharacteristically lower than others.

An **I (Incomplete)** grade will be assigned only if you are unable to complete the course due to circumstances beyond your control (e.g., documented illness or documented death or crisis in your immediate family) that develop after the last day to withdraw from the course. Job-related circumstances are generally not appropriate grounds for assigning an I grade. An I grade will not be used to avoid assigning of D, F, U, or RR grades for marginal or failing work.

Your final grade in this course will be determined based on seven grade components: critical essays, literature review, literature review presentation, research proposal, research proposal presentation, discussion co-facilitation, and class participation. **Further details regarding each of the grade components will be provided to you in class and on the course website.**

**Learning Outcomes (LOs).** Many LOs (i.e., descriptions of things you should be able to do) could be formulated for each topic, but some are particularly crucial to help you acquire the three big LOs of this course (p. 2). To help you stay focused on the important issues, I will provide you with a set of crucial LOs for each topic. Consider these LOs as your **study guide**.

## **POLICIES, CODES, ETC.**

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**Students with Disabilities.** Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act Amendments Act (ADAAA) covers issues relating to disability and accommodations. If you have questions or need an accommodation in the classroom (all medical information is treated confidentially), contact: Trudy Luken, Director; Student Accessibility Services (SAS) - Corbett Center, Rm. 208; Phone: (575) 646-6840 E-mail: sas@nmsu.edu; Website: <http://sas.nmsu.edu/>

**Non-Discrimination.** NMSU policy prohibits discrimination on the basis of age, ancestry, color, disability, gender identity, genetic information, national origin, race, religion, retaliation, serious medical condition, sex, sexual orientation, spousal affiliation, and protected veterans status. Furthermore, Title IX prohibits sex discrimination to include sexual misconduct: sexual violence (sexual assault, rape), sexual harassment and retaliation. For more information on discrimination issues, Title IX, Campus SaVE Act, NMSU Policy Chapter 3.25, NMSU's complaint process, or to file a complaint contact: Lauri Millot, Title IX Coordinator; Agustin Diaz, Title IX Deputy Coordinator; Office of Institutional Equity (OIE) - O'Loughlin House, 1130 University Avenue; Phone: (575) 646-3635 E-mail: equity@nmsu.edu; Website: <http://www.nmsu.edu/~eoo/>

**Other NMSU Resources.** NMSU Police Department: (575) 646-3311, [www.nmsupolice.com](http://www.nmsupolice.com); NMSU Police Victim Services: (575) 646-3424; NMSU Counseling Center: (575) 646-2731; NMSU Dean of Students: (575) 646-1722; For Any On-Campus Emergencies: 911

**Code of Academic Integrity.** Enrollment in this course and acceptance of this syllabus is your **contract** constituting acceptance of all University policies regarding academic integrity, including but not limited to cheating and plagiarism. You are expected to comply fully with the NMSU Honor Code as presented in the Student Handbook (<http://studenthandbook.nmsu.edu/>). Students who are judged to be guilty of academic dishonesty (<http://studenthandbook.nmsu.edu/student-code-of-conduct/academic-misconduct/>) on any graded class component will receive no points for that component, and we reserve the right to consider more severe penalties such as failure of the course and referral to the Dean and Student Judicial Affairs.

**Absence Policy.** Absences due to University-sanctioned activities, work-related events, holidays or special events observed by organized religions, or illness will be excused, if you provide me with official written documentation explaining your absence. I don't really have any additional absence policies. Just remember that learning is your responsibility and, if you miss a class meeting, you will have to figure out how to "make it up."

**Withdrawal.** Withdrawal from this course is solely your responsibility; I will not drop you from this class under any circumstances. If you no longer wish to be enrolled in this course, you must withdraw from it. If you are still on the class roll at the end of the semester, you will receive a grade based on the work submitted.

**What you can expect from me.** I will be available in class, during office hours and scheduled appointments, and via email to respond to any questions or concerns you may have. Don't be shy and contact me as soon as ambiguities, problems, or concerns arise! I will take all of your concerns seriously and respond to you as soon and as specific as possible. I will address any issues that are of importance to all students in class and on Canvas. I will do my very best to

always be prepared for class, grade assignments fairly, and return your work promptly (within one week). I reserve the right to change scheduled class topics and assignments. Any changes made will not adversely affect your workload or grade.

**What I expect from you:** Enrollment in this course and acceptance of this syllabus is your **contract** constituting acceptance of all New Mexico State University policies and codes as well as all specific policies outlined in this syllabus. We expect you to be on time for all class-related activities, submit all tasks as instructed, and always show “good” behavior toward both your instructor and peers. Have fun!

## TENTATIVE COURSE OUTLINE

Week	Date	Topic <b>Home Work Due</b>   <b>In Class Activity</b>   *See Readings Below
<b>PART I: INTRODUCTION TO GEOGRAPHY, RESEARCH ETHICS, AND WRITING</b>		
1	08/23	<b>Earning a Master of Applied Geography degree at NMSU</b> Resources, guidelines, process, etc. <b>Introduction to geography*</b> Introductions
2	08/30	<b>Research ethics*</b> <b>Writing*</b> Critical essay 1, Literature review task 1 Discussion of readings & writing & managing references and bibliographies
3	09/06	<b>Introduction to geographic theory and methodology*</b> <b>Early geographies and the emergence of modern geography*</b> Critical essay 2, Literature review task 2 Discussion of readings & writing literature reviews
<b>PART II: ONTOLOGY, EPISTEMOLOGY, PARADIGMS, AND METHODOLOGY IN GEOGRAPHY</b>		
4	09/13	<b>Human geography: humanistic, Marxist, and feminist geographies*</b> Critical essay 3, Literature review task 3 Discussion of readings & formatting Microsoft Word documents
5	09/20	<b>Human geography: postmodernist, poststructuralist, and relational geographies*</b> Critical essay 4 Discussion of readings & creating paper presentations
6	09/27	<b>Physical geography: ontology, epistemology, methodology, history, status, and trends*</b> Critical essay 5, Literature review tasks 4 and 5 Discussion of readings & critiquing professional journal articles
7	10/04	<b>Physical geography: the field, systems, change, complexity, and modeling*</b> Critical essay 6 Discussion of readings & writing research proposals
8	10/11	<b>Regional geography*</b> Critical essay 7, Literature review tasks 6 and 7

		Discussion of readings & creating poster presentations
9	10/18	<b>Spatial science and GIScience*</b> Critical essay 8 Discussion of readings & preparing for life beyond NMSU
10	10/25	<b>Human-environment geography*</b> Critical essay 9 Discussion of readings & other topics (tbd)
<b>PART III: GEOGRAPHIC RESEARCH METHODS</b>		
11	11/01	Faculty on parade <b>Spatial thinking*</b> Critical essay 10, Research proposal task 1
12	11/08	<b>Geographic theory and methodology*</b> Critical essay 11 Discussion of readings & other topics (tbd)
13	11/15	<b>Collecting and analyzing data in physical geography*</b> <b>Collecting and analyzing data in human geography*</b> <b>Collecting and analyzing data in human-environment geography*</b> Critical essay 12 Discussion of readings & other topics (tbd)
14	11/22	Thanksgiving Break (11/22-11/25)
15	11/29	<b>Collecting and analyzing data in spatial science*</b> <b>Representing and analyzing geographic data*</b> Critical essay 13 Discussion of readings & other topics (tbd)
16	12/06	Research proposal tasks 2 and 3 Discussion of research proposals & other topics (tbd)

## READINGS

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### Due Week 2 (> Critical Essay 1)

#### ***Introduction to Geography***

Holt-Jensen, A. 2009. What is geography? In *Geography: history and concepts: a student's guide*, A. Holt-Jensen, 1-32. London, UK: SAGE Publications.

Jones, J. P., and B. Gomez. 2010. Introduction. In *Research methods in geography: a critical introduction*, eds. B. Gomez and J. P. Jones, 1-5. Chichester, UK: Wiley-Blackwell.

#### ***Research Ethics***

Smith, D. M. 2010. The politics and ethics of research. In *Research methods in geography: a critical introduction*, eds. B. Gomez and J. P. Jones, 411-423. Chichester, UK: Wiley-Blackwell.

#### ***Writing***

Buenemann --- Notes from Gray, T. 2005. *Publish & flourish: become a prolific scholar*. Las Cruces, USA: New Mexico State University Teaching Academy.

DeLyser, D. 2010. Writing it up. In *Research methods in geography: a critical introduction*, eds. B. Gomez and J. P. Jones, 424-436. Chichester, UK: Wiley-Blackwell.

### Due Week 3 (> Critical Essay 2)

#### ***Introduction to Geographic Theory and Methodology***

Shaw, I. G. R., D. D. Dixon, and J. P. Jones III. 2010. Theorizing our world. In *Research methods in geography: a critical introduction*, eds. B. Gomez and J. P. Jones III, 9-25. Chichester, UK: Wiley-Blackwell.

Rhoads, B. L., and D. Wilson. 2010. Observing our world. In *Research methods in geography: a critical introduction*, eds. B. Gomez and J. P. Jones III, 26-40. Chichester, UK: Wiley-Blackwell.

Cresswell, T. 2013a. Introduction. In *Geographic thought: a critical introduction*, T. Cresswell, 1-13. Chichester, UK: Wiley-Blackwell.

Inkpen, R., and G. Wilson. 2013. Introduction. In *Science, philosophy and physical geography*, R. Inkpen and G. Wilson, 1-5. London, UK: Routledge.

#### ***Early Geographies and the Emergence of Modern Geography***

Cresswell, T. 2013b. Early geographies. In *Geographic thought: a critical introduction*, T. Cresswell, 14-34. Chichester, UK: Wiley-Blackwell.

Cresswell, T. 2013c. The emergence of modern geography. In *Geographic thought: a critical introduction*, T. Cresswell, 35-57. Chichester, UK: Wiley-Blackwell.

### Due Week 4 (> Critical Essay 3)

#### ***Human Geography: Humanistic Geographies***

Cresswell, T. 2013a. Humanistic geographies. In *Geographic thought: a critical introduction*, T. Cresswell, 103-121. Chichester, UK: Wiley-Blackwell.

Tuan, Y.-F. 1979. Space and place: humanistic perspective. In *Philosophy in Geography*, eds. S. Gale and G. Olsson, 387-427. Dordrecht, Netherlands: Springer.

#### ***Human Geography: Marxist Geographies***

Cresswell, T. 2013b. Marxist geographies. In *Geographic thought: a critical introduction*, T. Cresswell, 122-146. Chichester, UK: Wiley-Blackwell.

Peet, R. 1975. Inequality and poverty: a Marxist-geographic theory. *Annals of the Association of American Geographers* 65 (4): 564-571.

***Human Geography: Feminist Geographies***

Cresswell, T. 2013c. Feminist geographies. In *Geographic thought: a critical introduction*, T. Cresswell, 147-169. Chichester, UK: Wiley-Blackwell.

Monk, J., and S. Hanson. 1982. On not excluding the other half of the human in human geography. *The Professional Geographer* 34 (1): 11-23.

**Due Week 5 (> Critical Essay 4)**

***Human Geography: Postmodernist Geographies***

Cresswell, T. 2013a. Postmodernism and beyond. In *Geographic thought: a critical introduction*, T. Cresswell, 170-195. Chichester, UK: Wiley-Blackwell.

Dear, M. 1988. The postmodern challenge: reconstructing human geography. *Transactions of the Institute of British Geographers* 13 (3): 262-274.

***Human Geography: Poststructuralist Geographies***

Cresswell, T. 2013b. Toward poststructuralist geographies. In *Geographic thought: a critical introduction*, T. Cresswell, 196-217. Chichester, UK: Wiley-Blackwell.

Dixon, D. P., and J. P. Jones. 1998. My dinner with Derrida, or spatial analysis and poststructuralism do lunch. *Environment and Planning A* 30 (2): 247-260.

***Human Geography: Relational Geographies***

Cresswell, T. 2013c. Relational geographies. In *Geographic thought: a critical introduction*, T. Cresswell, 218-238. Chichester, UK: Wiley-Blackwell.

Massey, D. 1993. Power-geometry and a progressive sense of place. In *Mapping the futures: local cultures, global change*, eds. J. Bird, B. Curtis, T. Putnam and L. Tickner, 59-69. New York, NY, USA: Routledge.

**Due Week 6 (> Critical Essay 5)**

***Physical Geography: Ontology, Epistemology, Methodology, History, and Trends***

Aspinall, R. 2010. A century of physical geography research in the *Annals*. *Annals of the Association of American Geographers* 100 (5): 1049-1059.

Bauer, B. O. 1999. On methodology in physical geography: current status, implications, and future prospects. *Annals of the Association of American Geographers* 89 (4): 677-679.

Bauer, B. O., J. A. Winkler, and T. T. Veblen. 1999. Afterword: a shoe for all occasions or shoes for every occasion: methodological diversity, normative fashions, and metaphysical unity in physical geography. *Annals of the Association of American Geographers* 89 (4): 771-778.

Inkpen, R., and G. Wilson. 2013a. Ideas, change and stability in physical geography. In *Science, philosophy and physical geography*, R. Inkpen and G. Wilson, 7-30. London, UK: Routledge.

Inkpen, R., and G. Wilson. 2013b. The nature of reality. In *Science, philosophy and physical geography*, R. Inkpen and G. Wilson, 31-52. London, UK: Routledge.

Inkpen, R., and G. Wilson. 2013c. Entities and classification. In *Science, philosophy and physical geography*, R. Inkpen and G. Wilson, 53-72. London, UK: Routledge.

Inkpen, R., and G. Wilson. 2013d. Forms of explanation. In *Science, philosophy and physical geography*, R. Inkpen and G. Wilson, 73-94. London, UK: Routledge.



- Inkpen, R., and G. Wilson. 2013e. Probing reality. In *Science, philosophy and physical geography*, R. Inkpen and G. Wilson, 95-117. London, UK: Routledge.
- Rhoads, B. L. 2004. Whither physical geography? *Annals of the Association of American Geographers* 94 (4): 748-755.

#### **Miscellaneous**

- Blackburn, J. K., T. L. Hadfield, A. J. Curtis, and M. E. Hugh-Jones. 2014. Spatial and temporal patterns of anthrax in white-tailed deer, *Odocoileus virginianus*, and hematophagous flies in west Texas during the summertime anthrax risk period. *Annals of the Association of American Geographers* 104 (5): 939-958.

#### **Due Week 7 (> Critical Essay 6)**

##### ***Physical Geography: The Field, Systems, Change, Complexity, and Modeling***

- Inkpen, R., and G. Wilson. 2013a. The field. In *Science, philosophy and physical geography*, R. Inkpen and G. Wilson, 119-134. London, UK: Routledge.
- Inkpen, R., and G. Wilson. 2013b. Systems. In *Science, philosophy and physical geography*, R. Inkpen and G. Wilson, 135-147. London, UK: Routledge.
- Inkpen, R., and G. Wilson. 2013c. Change and complexity. In *Science, philosophy and physical geography*, R. Inkpen and G. Wilson, 149-174. London, UK: Routledge.
- Inkpen, R., and G. Wilson. 2013d. Modelling. In *Science, philosophy and physical geography*, R. Inkpen and G. Wilson, 175-192. London, UK: Routledge.
- Inkpen, R., and G. Wilson. 2013e. Physical geography and societies. In *Science, philosophy and physical geography*, R. Inkpen and G. Wilson, 193-207. London, UK: Routledge.
- Malanson, G. P., L. Scuderi, K. A. Moser, C. J. Willmott, L. M. Resler, T. A. Warner, and L. O. Mearns. 2014. The composite nature of physical geography: Moving from linkages to integration. *Progress in Physical Geography* 38 (1): 3-18.

#### **Due Week 8 (> Critical Essay 7)**

##### ***Regional Geography***

- Cresswell, T. 2013. Thinking about regions. In *Geographic thought: a critical introduction*, T. Cresswell, 58-78. Chichester, UK: Wiley-Blackwell.
- Fenneman, N. M. 1919. The circumference of geography. *Annals of the Association of American Geographers* 9 (1): 3-11.
- Hart, J. F. 1982. The highest form of the geographer's art. *Annals of the Association of American Geographers* 72 (1): 1-29.
- Hartshorne, R. 1958. The concept of geography as a science of space, from Kant and Humboldt to Hettner. *Annals of the Association of American Geographers* 48 (2): 97-108.
- James, P. E. 1952. Toward a further understanding of the regional concept. *Annals of the Association of American Geographers* 42 (3): 195-222.

#### **Due Week 9 (> Critical Essay 8)**

##### ***Spatial Science and GIScience***

- Couclelis, H. 2009. Ontology, epistemology, teleology: triangulating geographic information science. In *Research trends in geographic information science*, ed. G. Navratil, 283. Berlin, Germany: Springer.
- Cresswell, T. 2013. Spatial science and the quantitative revolution. In *Geographic thought: a critical introduction*, T. Cresswell, 79-102. Chichester, UK: Wiley-Blackwell.

- Harvey, D. 2006. Space as a keyword. In *David Harvey: a critical reader*, eds. N. Castree and D. Gregory, 340. Malden, MA: Blackwell Publishing.
- Schaefer, F. K. 1953. Exceptionalism in geography: a methodological examination. *Annals of the Association of American Geographers* 43 (3): 226-249.
- Taafe, E. J. 1974. The spatial view in context. *Annals of the Association of American Geographers* 64 (1): 1-16.

### **Due Week 10 (> Critical Essay 9)**

#### ***Human-Environment Geography***

- Cresswell, T. 2013. More-than-human geographies. In *Geographic thought: a critical introduction*, T. Cresswell, 239-260. Chichester, UK: Wiley-Blackwell.
- Robbins, P., and B. L. Turner. 2013. Two-way traffic across a porous border. In *Land change science, political ecology, and sustainability: synergies and divergences*, eds. C. Brannstrom and J. M. Vadjunec, 241-249. New York, NY: Routledge.
- Turner, B. L. 1989. The specialist-synthesis approach to the revival of geography: the case of cultural ecology. *Annals of the Association of American Geographers* 79 (1): 88-100.
- Turner, B. L. 1997. Spirals, bridges and tunnels: engaging human-environment perspectives in geography. *Ecumene* 4 (2): 196-217.
- Turner, B. L. 2002. Contested identities: human-environment geography and disciplinary implications in a restructuring academy. *Annals of the Association of American Geographers* 92 (1): 52-74.
- Turner, B. L., and P. Robbins. 2008. Land-change science and political ecology: similarities, differences, and implications for sustainability science. *Annual Review of Environment and Resources* 33: 295-316.

### **Due Week 11 (> Critical Essay 10)**

Faculty on Parade

#### ***Geospatial Thinking***

- Lobben, A., and M. Lawrence. 2015. Synthesized model of geospatial thinking. *The Professional Geographer* 67 (3): 307-318.
- Sheppard, E. 2015. Thinking geographically: globalizing capitalism and beyond. *Annals of the Association of American Geographers* 105 (6): 1113-1134.

### **Due Week 12 (> Critical Essay 11)**

#### ***Geographic Theory and Methodology***

- Visser, S., and J. P. Jones III. 2010. Measurement and interpretation. In *Research methods in geography: a critical introduction*, eds. B. Gomez and J. P. Jones III, 41-59. Chichester, UK: Wiley-Blackwell.
- Herod, A., and K. Parker. 2010. Operational decisions. In *Research methods in geography: a critical introduction*, eds. B. Gomez and J. P. Jones III, 60-76. Chichester, UK: Wiley-Blackwell.
- Jensen, R. R., and J. M. Shumway. 2010. Sampling our world. In *Research methods in geography: a critical introduction*, eds. B. Gomez and J. P. Jones III, 77-90. Chichester, UK: Wiley-Blackwell.

### **Due Week 13 (> Critical Essay 12)**

#### ***Collecting and analyzing data in physical geography***

Crozier, M. J., U. Hardenbicker, and B. Gomez. 2010. Physical landscapes. In *Research methods in geography: a critical introduction*, eds. B. Gomez and J. P. Jones III, 94-115. Chichester, UK: Wiley-Blackwell.

Winkler, J. A. 2010. Climates. In *Research methods in geography: a critical introduction*, eds. B. Gomez and J. P. Jones III, 116-136. Chichester, UK: Wiley-Blackwell.

Gillespie, T. W., and G. MacDonald. 2010. Vegetation. In *Research methods in geography: a critical introduction*, eds. B. Gomez and J. P. Jones III, 137-154. Chichester, UK: Wiley-Blackwell.

#### ***Collecting and analyzing data in human geography***

Secor, A. J. 2010. Social surveys, interviews, and focus groups. In *Research methods in geography: a critical introduction*, eds. B. Gomez and J. P. Jones III, 194-205. Chichester, UK: Wiley-Blackwell.

Allsop, D., H. Allen, H. Clare, I. Cook, H. Raxter, C. Upton, and A. Williams. 2010. Ethnography and participant observation. In *Research methods in geography: a critical introduction*, eds. B. Gomez and J. P. Jones III, 206-221. Chichester, UK: Wiley-Blackwell.

Schein, R. H. 2010. Cultural landscapes. In *Research methods in geography: a critical introduction*, eds. B. Gomez and J. P. Jones III, 222-240. Chichester, UK: Wiley-Blackwell.

Dixon, D. D. 2010. Analyzing meaning. In *Research methods in geography: a critical introduction*, eds. B. Gomez and J. P. Jones III, 392-407. Chichester, UK: Wiley-Blackwell.

#### ***Collecting and analyzing data in human-environment geography***

Robbins, P. F. 2010. Human-environment field study. In *Research methods in geography: a critical introduction*, eds. B. Gomez and J. P. Jones III, 241-256. Chichester, UK: Wiley-Blackwell.

St Martin, K., and M. Pavlovskaya. 2010. Secondary data. In *Research methods in geography: a critical introduction*, eds. B. Gomez and J. P. Jones III, 173-193. Chichester, UK: Wiley-Blackwell.

### **Due Week 15 (> Critical Essay 13)**

#### ***Collecting and analyzing data in spatial science***

Stow, D. A. 2010. Remote sensing. In *Research methods in geography: a critical introduction*, eds. B. Gomez and J. P. Jones III, 155-172. Chichester, UK: Wiley-Blackwell.

Goodchild, M. F. 2010. Geographic information systems. In *Research methods in geography: a critical introduction*, eds. B. Gomez and J. P. Jones III, 376-391. Chichester, UK: Wiley-Blackwell.

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