

METHODS OF INQUIRY

DCP 3200 SECTION 1578 (3 CREDITS) – FALL 2013

MONDAY 2ND PERIOD (8:30-9:20)
WEDNESDAY 2ND-3RD PERIOD (8:30-10:25)
FINE ARTS C ROOM 127

INSTRUCTOR: CHARLOTTE LAKE

CONTACT: SELIRA@UFL.EDU – SUBJECT LINE DCP3200 <YOUR LAST NAME & TOPIC>

OFFICE HOURS: MONDAY & WEDNESDAY 1ST PERIOD OR BY APPOINTMENT, ARCH BLDG ROOM 164

This course provides an overview of critical thinking techniques and research methods, with an emphasis on techniques pertinent to the field of sustainability in the built environment. Course projects will focus on analyzing and rebutting a claim, developing a strategy for gathering data, and evaluating the efficacy of a policy related to each student's interests.

COURSE GOALS & OBJECTIVES

- Practice critical thinking techniques to become comfortable evaluating diverse claims.
- Explore which research methods for gathering and analyzing data are most applicable to different types of research questions.
- Apply critical thinking strategies and research methods to policy analysis and evaluation.

REQUIRED READING

Readings will be comprised of online articles, course reserves, and handouts (see schedule).

REQUIREMENTS & GRADING

Exams	30%	(Students whose native language is not English may use a dictionary; see instructor.)
Projects	30%	
Participation	25%	(attendance, in-class activities, field trips, and pop quizzes)
Homework	15%	

Grade scale	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E
percent	93-100	90-92	87-89	83-86	80-82	77-79	73-76	70-72	67-69	63-66	60-62	0-59
grade points	4.00	3.67	3.33	3.00	2.67	2.33	2.00	1.67	1.33	1.00	0.67	0.00

ATTENDANCE AND MAKE-UP WORK

Attendance is required; Wednesdays count as two periods towards attendance. Arriving late to class will be counted as **half credit** for attendance.

Work or exams can **only** be made up for **excused** absences. Excused absences include illness, religious holidays, a death in the family, or participation as an athlete in official UF athletic events; to be excused, absences must be properly documented, for example with a doctor's note or an obituary. Pop quizzes **cannot** be made up.

All projects and assignments must be turned in on time; any project or assignment may be turned in early. If you will not be in class to turn the assignment in, even if it is an excused absence (e.g. studio field trip), you must turn the assignment in early. Any assignment turned in after it is due will be marked late, and your grade will be penalized one letter grade per day late.

This syllabus is subject to change.

UNIVERSITY POLICIES

ACADEMIC MISCONDUCT

Academic honesty and integrity are fundamental values of the University community. Students should be sure that they understand the UF Student Honor Code at <http://www.dso.ufl.edu/students.php>.

ACCOMMODATING STUDENTS WITH DISABILITIES

Students requesting accommodation for disabilities must first register with the Dean of Students Office (<http://dso.ufl.edu/drc/>). The Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation. You must submit this documentation prior to submitting assignments or taking the quizzes or exams. Accommodations are not retroactive, therefore, students should contact the office as soon as possible in the term for which they are seeking accommodations.

GETTING HELP

PROBLEMS WITH SAKAI

For issues with technical difficulties for E-learning in Sakai, please contact the UF Help Desk at:

- Learning-support@ufl.edu
- (352) 392-HELP - select option 2
- <https://lss.at.ufl.edu/help.shtml>

OTHER RESOURCES

Other resources are available at <http://www.distance.ufl.edu/getting-help> for:

- Counseling and Wellness resources
- Disability resources
- Resources for handling student concerns and complaints
- Library Help Desk support

You can also contact your instructor for assistance in finding resources or dealing with problems you are having with the course.

Should you have any complaints with your experience in this course please visit <http://www.distance.ufl.edu/student-complaints> to submit a complaint.

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Topic & Assignment Schedule (subject to change)

Readings listed on the topic schedule must be completed prior to class.

Wed 8/21 **Types of Proof**

Mon 8/26 **FiLCHeRS and Assessment of Claims**

- Reading: Sloan – A Fighting Spirit Won't Save Your Life
[http://www.nytimes.com/2011/01/25/opinion/25sloan.html?_r=3&ref=opinion]

Wed 8/28 **Research Questions and Scientific Method**

- Reading: Eveleth – Barns Are Painted Red Because of the Physics of Dying Stars [<http://blogs.smithsonianmag.com/smartnews/2013/05/barns-are-painted-red-because-of-the-physics-of-dying-stars/>]
- FiLCHeRS Assessment Homework due in class.
- Reading: Scott et al. - Relation of Native-Language Reading and Spelling Abilities to Attitudes Toward Learning a Second Language [reserves]

Mon 9/2 **NO CLASS – Labor Day**

Wed 9/4 **Pseudoscience and Fraud**

- Research Questions and Terms Homework due in class.
- Reading: Daniels - Who Says Woo Is Harmless?
[<http://www.secularnewsdaily.com/2012/06/who-says-woo-is-harmless-hows-a-school-district-blowing-172000-over-wi-fi-hazards/>]
- Reading: Psychic Who Said Amanda Berry Was Dead
[<http://abcnews.go.com/US/amanda-berrys-mom-told-psychic-sylvia-browne-berry/story?id=19126853>]
- Reading: Wynne – Parents' fear of vaccinations
[<http://www.abc.net.au/local/stories/2013/06/06/3776327.htm>]
- Reading: Smith – An open letter to my dad
[<http://scienceblogs.com/aetiology/2013/04/03/an-open-letter-to-my-dad-on-the-occasion-of-his-recent-anti-vax-facebook-postings/>]
- Reading: How to Boost Homeopathy Sales?
[<http://sciencebasedpharmacy.wordpress.com/2013/03/02/how-to-boost-homeopathy-sales-dont-tell-the-customer-its-homeopathy/>]

Mon 9/9 **Bias and Ethics**

- Reading: Myers – The reports of dinosaurs dying of farts are greatly exaggerated [<http://scienceblogs.com/pharyngula/2012/05/07/the-reports-of-dinosaurs-dying/>]
- Reading: Freedman – Lies, Damn Lies, and Medical Science (paragraphs 1-15)
[<http://www.theatlantic.com/magazine/archive/2010/11/lies-damned-lies-and-medical-science/308269/>]
- Reading: Walsh – Scientists want to bring 22 animals back from extinction
[<http://www.thejournal.ie/science-conference-de-extinction-840062-Mar2013/>]
- Reading: Crabbe - UF study: 20% of Gainesville bargoers say they're underage
[<http://www.gainesville.com/article/20090820/ARTICLES/908201050>]
- Reading: Johnson - UF study shows twenty percent of drinkers are underage
[<http://tinyurl.com/media-alligator>]
- Reading: Bennet et al. – Neural correlates of interspecies perspective taking in the post-mortem Atlantic Salmon [<http://prefrontal.org/files/posters/Bennett-Salmon-2009.pdf>]
- Print for class: Thombs et al. - Event-Specific Analyses of Poly-Drug Abuse and Concomitant Risk Behavior in a College Bar District in Florida [reserves]

- Wed 9/11 Presenting Work – Visual Aids, Persuasion**
- Email Visual Aid Homework by 5 pm Thursday, 9/12.
 - Reading: Hannam – Temperatures off the Charts as Australia Turns Deep Purple [<http://tinyurl.com/temp-chart-colors>]
 - Reading: Schmickle - The Politics of Historic Preservation [reserves]
- Mon 9/16 Presenting Work – Writing**
- Reading: Milbrath & Scofield [handouts]
 - Reading: Goldacre – Why Don't Journalists Link to Primary Sources? [<http://www.badsience.net/2011/03/why-dont-journalists-link-to-primary-sources/>]
- Wed 9/18 In-Class Activity: Capstone Proposal Review (Part 1) Evaluating Assumptions**
- Proposal Project Part 1 due in class.
 - Reading: Daegling & Schmitt - Bigfoot's Screen Test [reserves]
 - Reading: Green - Historical Overview and Basic Facts Involved in the Sasquatch or Bigfoot Phenomenon (abstract) [reserves]
 - Reading: Bindernagel - The Sasquatch (abstract) [<http://tinyurl.com/Bigfoot-Bindernagel>]
- Mon 9/23 EXAM 1 (through material for 9/16)**
- Wed 9/25 Research Concepts, Research Design**
- Opinion Rebuttal Part 1 due in class.
 - Reading: Lothian - Scenic Perceptions of the Visual Effects of Wind Farms on South Australian Landscapes [reserves]
- Mon 9/30 In-Class Activity: Capstone Proposal Review (Part 2) Evaluating Research**
- Proposal Project Part 2 due in class
 - Reading: Geoengineering the Climate (pg ix-xi, 4-7) [reserves]
 - Reading: Landman - Big Insurance, Big Tobacco and You [<http://www.prwatch.org/node/8482>]
 - Reading: Union of Concerned Scientists - Smoke, Mirrors & Hot Air (pg 6-8) [<http://tinyurl.com/tobacco-tactics>]
 - Reading: McKie – Attacks Paid for by Big Business [<http://www.theguardian.com/science/2012/feb/19/science-scepticism-usdomesticpolicy>]
 - Skeptical Science – Is There a Scientific Consensus on Global Warming [<http://www.skepticalscience.com/global-warming-scientific-consensus-advanced.htm>]
- Wed 10/2 Sampling Methods, Questionnaire Design, Resource Inventories**
- Opinion Rebuttal Part 2 due in class.
 - Reading: Galen - Profiles of the Godless [reserves]
 - Reading: Transgender Need Not Apply (pg 5, 8-10) [<http://tinyurl.com/matched-pairs>]
 - Reading: Heavy Boots [<http://www.phys.ufl.edu/~det/phy2060/heavyboots.html>]
- Mon 10/7 In-Class Activity: SWOT**
- Reading: Crabbe - A Home for Crime? [<http://tinyurl.com/GNV-homeless>]
 - Reading: Crane – Cedar Key's Clam Farmers Feel Squeezed Out [<http://www.gainesville.com/article/20130620/ARTICLES/130619527?tc=cr>]

- Wed 10/9 FIELD TRIP: Cabot/Koppers**
- Proposal Project Part 3 due.
 - Reading: Curry – Disagreement Continues as Koppers Plans Progress
[<http://www.gainesville.com/article/20130609/ARTICLES/130609630/1139?Title=Disagreement-continues-as-Koppers-plans-progress>]
- Mon 10/14 Quantitative Analysis**
- Opinion Rebuttal Part 3 due.
 - Print for class: Audin - Three Myths of Energy Efficiency [reserves]
 - Print for class: Glassman et al. - Using the Theory of Planned Behavior to Explain the Drinking Motivations of Social, High-Risk, and Extreme Drinkers on Game Day [reserves]
- Wed 10/16 Student Urban Legend Presentations**
- Presentation in class.
 - Urban Legend write-up due.
- Mon 10/21 EXAM 2 (through material for 10/14)**
- Wed 10/23 In Class Activity: Meeting Goals**
- Reading: All That Is Interesting - The First Zombie-Proof House [<http://all-that-is-interesting.com/post/4956385434/the-first-zombie-proof-house>]
- Mon 10/28 Behavioral Research**
- Opinion Rebuttal Part 4 due in class.
 - Reading: Curry – Two Years Later, Main Street Debate Persists
[<http://www.gainesville.com/article/20130613/ARTICLES/130619803?tc=cr>]
- Wed 10/30 Policy Evaluation**
- Reading: Lott - More Guns, Less Crime (excerpt) [reserves]
 - Reading: M.S. Swimming and Freedom
[<http://www.economist.com/blogs/democracyinamerica/2010/08/liberalitarianism-and-regulation>]
 - Reading: Zwerdling & Williams – For a Florida Fishery, ‘Sustainable’ Success
[<http://www.npr.org/2013/02/12/171376575/for-a-florida-fishery-sustainable-success-after-complex-process>]
 - Reading: Urban Agriculture Selection
 - Aleccia – Backyard Chickens Dumped at Shelters
[<http://www.nbcnews.com/health/backyard-chickens-dumped-shelters-when-hipsters-cant-cope-critics-say-6C10533508>]
 - It's Not a Fairytale [<http://www.whydontyoutrythis.com/2013/04/it-is-not-a-fairytale-seattle-to-build-nations-first-food-forest.html>]
 - Heyes – Feds Raid Indoor Gardeners
[http://www.naturalnews.com/039794_indoor_gardening_war_on_drugs_police_raids.html]
 - Mail Online - Woman Faces Jail [<http://www.dailymail.co.uk/news/article-2012640/Woman-faces-jail-growing-vegetables-yard.html>]
 - Doiron – Victory! Adam Can Keep His Garden! [http://kqi.org/blogs/roger-doiron/stand-solidarity-adam-querrero?utm_source=Kitchen+Gardeners+International+List&utm_campaign=e9d88f6926-September_2011_Newsletter9_20_2011&utm_medium=email]
 - Popken – Illegal Urban Gardener Gets Away with It
[<http://consumerist.com/2011/11/illegal-urban-vegetable-gardener-gets-away-with-it.html>]

- Mon 11/4** **Traditional Architecture**
- Wed 11/6** **FIELD TRIP – Nanoscale Building**
 - Reading: Quirk – Where is LEED Leading Us?
[\[http://www.archdaily.com/227934/where-is-leed-leading-us-and-should-we-follow/\]](http://www.archdaily.com/227934/where-is-leed-leading-us-and-should-we-follow/)
- Mon 11/11** **NO CLASS – Veterans Day**
- Wed 11/13** **FIELD TRIP – GRU Paynes Prairie Sheetflow Restoration Project**
 - Meet at the site at 8:30 am wearing closed-toed shoes, long pants, prescription glasses OR safety glasses, hard hat, and safety vest.
- Mon 11/18** **Case Study Research**
 - Reading: Zmeureanu & Marceau – Evaluating Energy Impact of People's Behavior in a House [reserves]
 - Reading: Glassman et al. - Winning Isn't Everything [reserves]
 - Print for class: Glassman et al. - Using the Theory of Planned Behavior to Explain the Drinking Motivations of Social, High-Risk, and Extreme Drinkers on Game Day [reserves – print only]
- Wed 11/20** **GUEST SPEAKER: Invasive Species in the Built Environment**
In-Class Activity: Citizen Science Presentations
 - Presentation in class.
- Mon 11/25** **Policy Evaluation Project Research**
- Wed 11/27** **NO CLASS – Thanksgiving**
- Mon 12/2** **Exam 3 (through material for 11/20)**
- Wed 12/4** **Student Policy Evaluation Presentations**
 - Presentation in class.
 - Policy Evaluation Project Write-Up Due in Class.

This schedule is subject to change.

Reading Schedule (subject to change)

Readings on this schedule pertain to the topics as listed. These are the readings that will be on exams and quizzes.

Exam 1 Readings

Types of Proof

Hall - We Couldn't Say It in Print If It Wasn't True [<http://tinyurl.com/CSI-print>]

Gawande – Under Suspicion [reserves]

FiLCHeRS and Assessment of Claims

Lett - A Field Guide to Critical Thinking [<http://tinyurl.com/CSI-FiLCHeRS>]

Morrison - Only a Theory? [<http://tinyurl.com/CSI-theory>]

Hall - Playing by the Rules [http://www.csicop.org/si/show/playing_by_the_rules/]

Pseudoscience and Fraud

Carroll – Pranks, Frauds, and Hoaxes from Around the World [<http://tinyurl.com/CSI-hoaxes>]

Daniels - Who Says Woo Is Harmless? [<http://www.secularnewsdaily.com/2012/06/who-says-woo-is-harmless-hows-a-school-district-blowing-172000-over-wi-fi-hazards/>]

How to Boost Homeopathy Sales?

[<http://sciencebasedpharmacy.wordpress.com/2013/03/02/how-to-boost-homeopathy-sales-dont-tell-the-customer-its-homeopathy/>]

Bias and Ethics

Freedman – Lies, Damn Lies, and Medical Science (paragraphs 1-15)

[<http://www.theatlantic.com/magazine/archive/2010/11/lies-damned-lies-and-medical-science/308269/>]

Nutt – Review was right to criticise BBC's science coverage

[<http://m.guardian.co.uk/commentisfree/2011/jul/21/review-bbc-science-coverage?cat=commentisfree&type=article>]

Goldacre - The danger of drugs... and data [<http://tinyurl.com/drugs-data>]

Presenting Work – Visual Aids

Lester - Why Bad Beliefs Don't Die [<http://tinyurl.com/CSI-beliefs>]

Brown – 'Duh' Science: Why Researchers Spend So Much Time Proving the Obvious

[<http://articles.latimes.com/2011/may/28/science/la-sci-duh-20110529>]

Harris - The Fireplace Delusion [<http://www.samharris.org/blog/item/the-fireplace-delusion>]

Handwerk – Pro-Environment Light Bulb Labeling Turns off Conservatives

[<http://news.nationalgeographic.com/news/energy/2013/04/130430-light-bulb-labeling/>]

Presenting Work – Writing

Goldacre – Why Don't Journalists Link to Primary Sources?

[<http://www.badscience.net/2011/03/why-dont-journalists-link-to-primary-sources/>]

Hyman - Proper Criticism [<http://tinyurl.com/CSI-criticism>]

This schedule is subject to change.

Exam 2 Readings

Evaluating Assumptions

Douglas - The Kids Are Just Fine, Thanks [<http://tinyurl.com/eval-kids>]

Research Concepts

Tuteur - If Correlation Is Not Causation, What Is? [<http://www.skepticalob.com/2011/02/if-correlation-is-not-causation-what-is.html>]

Engber – The Internet Blowhard's Favorite Phrase

[http://www.slate.com/articles/health_and_science/science/2012/10/correlation_does_not_imply_causation_how_the_internet_fell_in_love_with_a_stats_class_clich_.html]

Coates – What We Mean When We Say 'Race Is a Social Construct'

[<http://www.theatlantic.com/national/archive/2013/05/what-we-mean-when-we-say-race-is-a-social-construct/275872/>]

Research Design

Ford - Hidden Treasure [<http://tinyurl.com/data-CRM>]

Evaluating Research

Landman - Big Insurance, Big Tobacco and You [<http://www.prwatch.org/node/8482>]

Union of Concerned Scientists - Smoke, Mirrors & Hot Air (pg 6-8) [<http://tinyurl.com/tobacco-tactics>]

McKie – Attacks Paid for by Big Business

[<http://www.theguardian.com/science/2012/feb/19/science-scepticism-usdomesticpolicy>]

Skeptical Science – Is There a Scientific Consensus on Global Warming

[<http://www.skepticalscience.com/global-warming-scientific-consensus-advanced.htm>]

Sampling Methods, Questionnaire Design

Best - Research in Education [reserves]

Hardy – How Cellphones Complicate Polling [http://bits.blogs.nytimes.com/2012/11/12/how-cellphones-complicate-polling/?TE-D-E-AD-OB-TXT-BITS-ROS-0512-NA&_r=0]

SWOT

Crabbe - A Home for Crime? [<http://tinyurl.com/GNV-homeless>]

Cabot/Koppers

O'Neil – Superfund: Evaluating the Impact of Executive Order 12898 [reserves]

Quantitative Analysis,

Martin – Coincidences [<http://tinyurl.com/CSI-coincidence>]

Why Sex Differences Don't Always Measure Up

[<http://sugarandslugs.wordpress.com/2011/02/13/sex-differences/>]

O'Neil – How Mathematics Can Make Smart People Dumb [<http://mises.org/daily/5413/How-Mathematics-Can-Make-Smart-People-Dumb>]

This schedule is subject to change.

Exam 3 Readings

Behavioral Research

Handy - Questioning Assumptions 1 [reserves]

Berke - Questioning Assumptions 2 [reserves]

Rosenthal – Across Europe, Irking Drivers Is Urban Policy

[http://www.nytimes.com/2011/06/27/science/earth/27traffic.html?_r=1&hp]

Goodyear – When design kills: The criminalization of walking

[<http://www.grist.org/infrastructure/2011-07-20-when-design-kills-the-criminalization-of-walking>]

Policy Evaluation

M.S. - Swimming and Freedom

[http://www.economist.com/blogs/democracyinamerica/2010/08/liberalitarianism_and_regulation]

Hamm – No Horn of Plenty [<http://www.theage.com.au/environment/conservation/no-horn-of-plenty-20130514-2jknt.html>]

Traditional Architecture

National Trust for Historic Preservation - 10 Reasons to Repair Your Old Windows

[http://www.tusculum.sbc.edu/toolkit/toolkit_pdfs/nthp_reasons_to_repair.pdf]

Mabie – Honoring Grandpa, Earth [http://host.madison.com/business/honoring-grandpa-earth-casket-maker-has-passion-for-nature/article_e9da376a-3058-11e2-b231-0019bb2963f4.html]

Mann – 1491 [reserves]

LEED

Quirk – Where is LEED Leading Us? [<http://www.archdaily.com/227934/where-is-leed-leading-us-and-should-we-follow/>]

GRU Paynes Prairie Sheetflow Restoration Project

Brown – The Problem Is Clear: The Water Is Filthy

[http://www.nytimes.com/2012/11/14/us/tainted-water-in-california-farmworker-communities.html?smid=fb-share&_r=0]

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