ENV 407 – Research for Master Thesis
SYLLABUS – Winter 2019

Professor: Dr. Jess Vogt – *Please call me "Jess"*
Email: jess.vogt@depaul.edu or jessica.m.vogt@gmail.com
Cell: (920) 850-2016 – *OK to text, call, leave voicemails here; this is my only phone number*
Office: McGowan South 203 G
Office Hours: *See Communication Philosophy below*

Class Time: Wed 1:00-3:00 pm

Location: LUFA Lab

***This class will meet weekly for the first 6 weeks of the quarter (Jan 8-Feb 12), then weeks 7, 8 and 9 will be mostly on your own while consulting with your research advisor and Jess as needed as you work on your Research Proposal, and then week 10 will be formal presentations of your Research Proposal during class time*

ABOUT THE PROFESSOR

Dr. Jess Vogt is an Assistant Professor in the Department of Environmental Science & Studies at DePaul University. She teaches courses in sustainability science, urban forestry, and mixed methods research. She has a Ph.D. in Environmental Science, a Master's of Public Affairs in Sustainability, and a M.S. in Environmental Science, all from the School of Public and Environmental Affairs at Indiana University. Jess is active in the urban forestry professional community, serving an Associate Editor for the journal *Urban Forestry & Urban Greening,* as Director of Research for the Illinois Arborist Association, and Vice Chair of the Science & Research Committee of the International Society of Arboriculture. She was awarded the 2018 International Society of Arboriculture Awards of Distinction Early-Career Scientist Award. Jess spent August of 2018 in Zhengzhou, China, as a Visiting Foreign Expert in the International Lab of Henan Provincial Landscape Architecture at Henan Agricultural University.

At DePaul, Jess runs LUFA, the Lab for Urban Forestry in the Anthropocene. LUFA does research at the intersection of urban forestry and sustainability science, examining how trees and urban greening activities can make cities more ecologically sustainable as well as livable for people. You can find more information about LUFA research as well as opportunities for students on our website: www.lufa-depaul.org.

Communication Philosophy:

In order to make this course a successful a learning experience for all of us, I am available to meet with students outside of class as much as possible. Therefore:

- Most Tuesdays, Wednesdays, and Thursdays between 9 am and 4:30 pm, I am in my office (203 G). During these hours, my door is always open to you. Please feel free to stop by to ask questions about this class, with BA or M.S. ENV advising issues, or even just to chat.
- Mondays and Fridays are my research/writing days, during which I will be writing either from home, a coffeeshop, or sometimes my office. If you need to get a hold of me on these days, you can try email, but it might be better to call or text if you want/need a quick reply, as I often spend large amounts of time off email while I'm writing.
- Email me or talk to me before or after class if you want to schedule an appointment.
- Feel free to call or text me on my cell phone (920-850-2016) during reasonable hours with questions or concerns. If you leave a voicemail, I'll get back to you.

COURSE OBJECTIVE

This course aims to orient M.S. Environmental Science students in the *Thesis track* to the process of masters-level research in environmental science and studies, including completing a master's thesis in the Department of Environmental Science at DePaul University. Students will complete and present their Research Proposal (inclusive of a systematic literature review and methods) for their master's thesis, as well as become familiar with advanced research design and methods in the field of environmental science and studies.

Learning Outcomes

After completing this course students will be able to:

1. Situate themselves and their research in the context of the theory and practice of transdisciplinary sustainability and environmental science research;
2. Perform a sophisticated and systematic search of the scientific and academic literature on a focused topic;
3. Engage in a deep and thorough reading of scientific papers with the intent of identifying for potential application the research design and methods used in the paper;
4. Know and be able to apply key elements of good research design;
5. Understand the importance of methodological transparency in all phases of the design and conduct of scientific research, and create and communicate in writing a detailed, transparent, well-sourced research methods protocol; and,
6. Propose scientific research in writing: that is, write a clearly-stated and answerable scientific research question, justify why this question is interesting in the context of the relevant scientific literature and applied environmental science context, and document detailed proposed methods for data collection and analysis (as appropriate to the student's thesis research project).

COURSE MATERIALS

Required Content:

There is no assigned textbook for this course. Readings (scientific articles and book chapters) will be available on D2L, posted in the week for which they are assigned. A list of full citations to all assigned course readings will be provided as a convenience the first day of class. *All additional required content will be posted in PDF form or hyperlinked from D2L in Content >> Weekly Reading Schedule.*

A note about assigned scientific articles: We will be reading *a lot* of scientific literature in this class. If you develop a method to become comfortable reading and annotating scientific papers as soon as you can, the reading for the quarter will be much easier. You might print the articles and heavily annotate (underline + notes in the margins or on post-its) the paper copies, or read electronically and take notes in a Word document, or use a PDF annotating software to read and take notes electronically, or any other method of closely reading and taking notes on each article so that you're prepared for in-class discussions and activities. On the first day of class, I'll pass out a short article as well as a document containing some tips for reading scientific papers (and post to D2L in Content >> Writing, Reading, Citing, Speaking Tips).

Two Research Guides:

Because some students like to have a book as a reference (full disclosure: I was one of these students), I've made available on D2L (Content >> Two Research Guides) PDFs of two complete books that you might find helpful as research and scientific writing guides:

Blackwell, J. & Martin, J. (2012). *A Scientific Approach to Scientific Writing.* Springer Science+Business Media, New York, New York. 112pp.

Katz, M.J. (2009). *From Research to Manuscript: A guide to scientific writing.* Springer Science+Business Media, New York, New York. 205pp.

D2L:

The D2L site for this class will be the way we organize course materials (Content tab) and how you turn in select assignments (Submissions tab). In addition, I may post class announcements (Home tab) and relevant news articles (Discussions tab) and use D2L to send course-related emails. Login to d2l.depaul.edu and click on this ENV 407 class for more details.

COURSE EVALUATION

Your grade in this course will be based on your regular attendance and participation in class sessions, your weekly reading responses, completion of two assignments during the first 6 weeks of the quarter, and your Research Proposal (written proposal + oral presentation) for your M.S. thesis research, to be submitted at the end of the quarter.

Attendance/Participation – *impacts final course grade as described below*

As graduate students it is expected that you will attend each and every class session. This is particularly important for ENV 407, which meets only 7 times during the quarter (Weeks 1-6 + Week 10). During each class meeting, we will engage with the assigned materials for the week, as well as discuss your progress on your individual Research Portfolios. Readings assigned for a particular week should be read *before* class time that week unless otherwise indicated. Please take ample notes on the readings (in the margins of a printed or electronic copy of the reading, on post-it notes, typed in a Word document, etc.) and bring both the reading and your notes to each class meeting so you are prepared to discuss the material during class.

For every class missed, a percentage will be deducted from your final grade in the course as follows: For one class missed, 2% will be deducted from your final grade. For two classes missed, 5% will be deducted. For 3 classes missed, 9% will be deducted. For more than 3 classes missed, you will fail the course. So for example, your cumulative grade for all other course work is a 90% (A-), but you missed class once during the quarter, your final course grade will be an 88% (B+). If you had missed two classes during the quarter, your final course grade would be a 85% (B). If you had missed three classes, your final grade an 81% (B-).

If there is an emergency and you absolutely *must* miss a class, please email Jess ASAP. Since there is such a small number of students in the class, the absence of even 1 student will dramatically impact the class session, and I will therefore need to plan accordingly for your absence.

Weekly Reading Responses – *10% of final course grade – turn in a typed paper copy each week in class*

Each week there will be several assigned readings: a mix of chapters from one or more of the assigned textbooks and/or PDFs of articles or case studies posted to D2L. You are expected to read this material closely and critically, and come to class prepared to discuss these readings and complete various related activities, exercises, etc. during class time.

In order to help keep us accountable to one another and give you practice articulating your thoughts in writing, please come to class with a ***300-600-word (max. of a single piece of paper) Reading Response each week.*** Reading Responses are your personal, professional, and critical-analytical response and reactions to the assigned readings for the week. Since there are multiple (usually thematically related)

pieces assigned each week, your Reading Response should reflect on each text, *as well as connections between the texts*. (Note that multiple chapters from the same book/author(s) can be considered a single 'text' for the purposes of your response.) Reading Responses should be typed, printed and handed in to me at the end of each class.

You might reflect on (*not an inclusive list – just some ideas to get you started)*:

- Comparisons, contrasts, connections, etc. among the assigned readings;
- The authors' disciplinary background and perspective (you might want to do some googling to figure out who the author is);
- Critiques or disagreements you have with the readings (and the source of information for said critique);
- Connections between the readings and news or current events;
- Reflections on the readings based on your own previous professional experiences;
- Questions raised; points you didn't understand or would like to discuss more in class;
- Consideration of the readings in relation to your thesis topic and Research Proposal;
- Your emotional reactions to the readings; or,
- Any other thoughts that emerged as you were reading the texts.

Your writing in the Reading Responses should be, as much as possible, in full, grammatically correct sentences, organized into themed paragraphs, and make use of short, declarative subheadings, and/or bullet points as you deem fit. The Responses *do not* need to be an 'essay' (i.e., a single, narrative piece with a thesis/main argument and supporting paragraphs, etc.), but should be more organized than stream-of-consciousness ranting. The purpose of these weekly responses is to allow you to practice taking content you've read and integrating it with what you're learning in this and other classes as well as what you already know from experience, and putting these thoughts into coherent sentences in a quick and efficient manner. Ideally, writing the Reading Responses should take you no more than 20 or 30 minutes after completing the readings.

Assignment 1: Researcher Orientation – *20% of final course grade – due in class Week 4*

One of the important things that researchers should consider before undertaking their research is the philosophical orientation of themselves (as researchers, but also as human beings) to the topic and methods at hand. As Mitchell et al. (2015) state, *"The best we can do as transdisciplinary researchers is to continue to improve our individual and collective capacity to practise reflectively"* (p. 89). What "epistemological and ontological preferences" (Mitchell et a. 2015) and values do you have, and how will these impact the research you're interested in? What paradigms and worldview do you consider in your research? What influence do your own experiences have on your research? What is the intention or purpose of your research? What about the purpose of research in general—what role do you think science and research should have in society and decision making? Considering these questions as well as the readings and discussion from Weeks 1 and 2, in a 750-word reflective essay answer the following prompt: *Who am I as a researcher?* Obviously, you are the beginning of your research career at this point, so do not worry too much that what you might write might change between now and the end of your master's degree (and beyond). I myself have evolved a lot as a researcher since I was in graduate school (for one, my views on the ability of scientists to remain objective in their research have changed significantly).

Assignment 2: Science, Society, Causation, and Research Design – *20% of final course grade – due in class Week 6*

Assignment 2 will be an essay of similar length (~750 words) as Assignment 1. Stay tuned for more details.

Master's Thesis Research Proposal (Literature Review Spreadsheet + Complete Written Proposal + Oral Presentation) – *50% of final course grade – due in class Week 10*

The most major output of this class will be your Research Proposal, which will lay out the literature context and proposed methods for your master's thesis research. More guidance on the structure and contents of this proposal (as well as of your master's thesis research) will be provided during class.

Assignment Formatting

All written assignments should be formatted in a standard font (Calibri, Cambria, Times, Helvetica, Arial, etc.) at ***11 pt size***, with ***1.1 or 1.15 spacing*** and ***1" margins*** on all sides. Your document should have your last name and page numbers in the upper right header space (e.g., "Vogt 1" – use the auto-page numbering feature available in most word processors), and the class number and the title of the assignment in the upper left header space (e.g., "ENV 407 Researcher Orientation essay"). Nothing should appear in the footer space of each page. Please provide a topically-appropriate descriptive title for the document in **bold** on the top of the first page (e.g., "Week 3 – Response to Readings"), with your full name appearing under the title in italics. There is no need to put a cover sheet on any document you turn in.

For assignments that are due via D2L Submissions, you should submit files that are in either PDF (.pdf) or Microsoft Word (.docx) format, with ***PDF being the preferred format***. Other word processor formats (Pages, Google Docs, etc.) will under no circumstances be accepted. If you need assistance converting from one of these formats to Word or PDF, please let me know and I am happy to walk you through it.

Late Assignments

Late assignments will likely be accepted ***if you notify me in writing in advance of the due date.*** Typically, I am willing to negotiate extensions to students who ask courteously and respectfully.

Citations: ***You really, really, really ought to read this section!!!***

For all written work completed for this class you should be sure to consult sources (reading material assigned for this class or additional sources you find on your own) and to properly cite these sources in your written work. I've provided a "Citations" document on D2L (Content >> Writing, Reading, Citing, Speaking Tips), which contains some basic, partial information for a few common types of scientific sources, but is not an all-inclusive reference for how to properly cite all sources you might encounter for this course. If you've used MLA format in classes before, be advised that *MLA is not a proper citation formatting system for scientific purposes.* I recommend either using APA or Chicago style. The Purdue OWL website (https://owl.english.purdue.edu/owl/) is an excellent reference for how to properly cite sources if you're new to this.

Please, please, please do not use an online citation generator. I have never yet seen one be used effectively. If you're in the market for a citation management software, something like Endnote or Mendeley works very well and does provide the copy-paste functionality that online citation generators lack, but recognize that these citation management softwares still require the user (you) to enter all the information for a source properly before their copy-paste functions will work accurately. ***Be warned, incorrect in-text citations or improper Literature Cited references are major pet peeves of mine, but I am more than happy to help you learn how to properly cite sources if you're new to this game.*** It's a relatively easy to memorize and terrifically valuable skill.

ADDITIONAL CLASSROOM POLICIES

Minimum Technology Policy:

Because participation and engagement with one another is so important, I prefer not to have any technology – laptops, tablets, phones, etc. - in the classroom (unless I specifically ask you in advance to bring an internet-enabled device to class).

Here's why: Studies have shown that allowing technology in the classroom is distracting and results in decreased student learning. Although we may think we are effectively "multitasking" when you're simultaneously using multiple applications on our computers (or when you're listening to class discussion and checking your email), you cannot truly do more than one thing at once. At best, "multitasking" results in what is called "fast switching," or rapidly moving between separate activities, where at any instant all of your brain is only focused on one of the activities. Take it from Adam Gazzaley, MD, Ph.D., a professor of neuroscience at University of California, San Francisco (from his TED talk, www.youtube.com/watch?v=tiANn5PZ4BI):

"With each switch, there is a time delay, and this leads to a cost and an impact on performance. You do not do two things as well as you do one thing, if you switch back and forth between them."

Technology is a type of distraction and interference that impairs long-term and short-term memory, and, ultimately, learning. ***For these reasons and others, technology – computers/laptops, tablets, cell phones, etc. – are discouraged in the classroom*** when not specifically asked for. With these distractions at a minimum, we will be able to more fully engage in the class, with each other and with the readings in class discussions and activities.

Email Etiquette:

I would prefer that you use email communication for all class business. This way, we all have a record of communications (and so I will remember when I agreed to meet with you, why you're missing class on a particular date, etc.). Please practice the following email etiquette, which you might find useful not just in this class, but in all your email communications.

- Use a short but descriptive subject line. ***Something more than just "ENV 407" is crucial.***
- Continue conversations about the same topic or question in the same email thread by *replying* to the email rather than creating a new message.
- Emails should be as brief as possible but also include sufficient information for me to know what you're asking.
- **See emailcharter.org** for more suggestions on email etiquette to help keep our inboxes manageable.

Online Teaching Evaluations:

Instructor and course evaluations provide valuable feedback that can improve teaching and learning. The greater the level of participation, the more useful the results. As students, you are in the unique position to view the instructor over time. Your comments about what works and what doesn't can help faculty build on the elements of the course that are strong and improve those that are weak. Isolated comments from students and instructors' peers may also be helpful, but evaluation results based on high response rates may be statistically reliable. As you experience this course and material, think about how your learning is impacted.

Your honest opinions about your experience in and commitment to the course and your learning may help improve some components of the course for the next group of students. Positive comments also show the

department chairs and college deans the commitment of instructors to the university and teaching evaluation results are one component used in annual performance reviews (including salary raises and promotion/tenure). The evaluation of the instructor and course provides you an opportunity to make your voice heard on an important issue – the quality of teaching at DePaul. ***Don't miss this opportunity to provide feedback.***

Academic Integrity:

DePaul University is a learning community that fosters the pursuit of knowledge and the transmission of ideas within a context that emphasizes a sense of responsibility for oneself, for others and for society at large. Violations of academic integrity, in any of their forms, are, therefore, detrimental to the values of DePaul, to the students' own development as responsible members of society, and to the pursuit of knowledge and the transmission of ideas. Violations include but are not limited to the following categories: cheating; plagiarism; fabrication; falsification or sabotage of research data; destruction or misuse of the university's academic resources; alteration or falsification of academic records; and academic misconduct. Conduct that is punishable under the Academic Integrity Policy could result in additional disciplinary actions by other university officials and possible civil or criminal prosecution. Please refer to your Student Handbook or visit Academic Integrity at DePaul University (academicintegrity.depaul.edu) for further details.

Students with Disabilities:

Students seeking disability-related accommodations are required to register with DePaul's Center for Students with Disabilities (CSD) enabling you to access accommodations and support services to assist your success. There are two office locations:

- Loop Campus – Lewis Center #1420 – (312) 362-8002
- Lincoln Park Campus – Student Center #370 – (773) 325-1677

Students are also invited to contact me privately to discuss your challenges and how I may assist in facilitating the accommodations you will use in this course. This is best done early in the quarter and our conversation will remain confidential.

Writing Center:

I strongly recommend you make use of the Writing Center throughout your time at DePaul. The Writing Center provides free peer writing tutoring for DePaul students, faculty, staff, and alumni. Tutors work with writers at all stages of the writing process, from invention to revision, and they are trained to identify recurring issues in your writing as well as address any specific questions or areas that you want to talk about. Visit www.depaul.edu/writing for more information.

Dean of Students Office:

The Dean of Students Office (DOS) helps students in navigating the university, particularly during difficult situations, such as personal, financial, medical, and/or family crises. Absence Notifications to faculty, Late Withdrawals, and Community Resource Referrals, support students both in and outside of the classroom. Additionally, they have resources and programs to support health and wellness, violence prevention, substance abuse and drug prevention, and LGBTQ student services. The Office is committed to your success as a DePaul student. Please feel free to contact them at studentaffairs.depaul.edu/dos.