COLLEGE OF DESIGN, CONSTRUCTION, AND PLANNING – UNIVERSITY OF FLORIDA DOCTORAL PROGRAM

DCP 7911 Section 0655
ADVANCED DESIGN, CONSTRUCTION AND PLANNING RESEARCH I
SPRING 2020
Class meets: Wednesdays 12:50-3:50 pm (periods 6-8) in ARCH 411

Instructors:	Ravi S. Srinivasan (sravi@ufl.edu, Office: RNK 344)
	Tim Murtha (tmurtha@ufl.edu, CAT211 and zoom-
	https://ufl.zoom.us/s/3523522018)
	Zhong-Ren Peng (zpeng@ufl.edu, Office: ARCH 462, T:352.294.1491)
Office Hours:	Srinivasan: Wed. 12-12:45 & by appointment
	Murtha: Tue. 12:00 – 2:00 & by appointment
	Peng: Wed. 10:00 – 12:00 & by appointment

Course Overview:
This course is designed to help PhD students navigate the dissertation process. It is also intended to provide opportunities for students to become critical and astute readers of other people's research. DCP 7911 is a survey course that covers the basic elements of academic research, including (1) research formulation and design, (2) research approaches and methods, and (3) quantitative data analysis. As well, the semester-long course project involves learning how to formulate and write a major component of a research proposal – a NSF-style research that is closely related to your dissertation proposal.

Overall, the course's structure is on 'operationalization' of doctoral research: how to proceed iteratively from topic to research question to literature review, to hypotheses, to research plan and method. Three workshops throughout the semester allow students to hone skills in becoming critical readers of other people's writing by providing constructive feedback on the semester-long project being developed by their peers. The goal of the course is for students to lay the foundation for their future research pursuits by acquiring knowledge and background necessary to later develop a research proposal for their own dissertation or for a research grant.

COURSE STRUCTURE

The course is organized in three distinct yet interrelated modules as follows:
PART I: Research Topic Formulation and Design: Ravi S. Srinivasan
This module requires homework/assigments, which have to be passed with a minimum of B+

Topic 1.1 (Jan. 8)	Introduction to course, including guest speaker, Dean Chimay Anumba; Finding and honing a research question
Jan. 12th at noon	Submit topic statement and project type for semester project
Topic 1.2 (Jan. 15)	Panel: Behind-the-scenes strategies of developing grant proposals; Typology, methods and purposes of literature reviews
Topic 1.3 (Jan. 22)	Literature reviews (cont); Formulating hypotheses
Topic 1.4 (Jan. 29)	Guest Lectures: TBD
Topic 1.5 (Feb. 5)	Typology of research designs, methods and methodologies; Credibility, validity, reliability
Feb. 9th at noon	Submission for Workshop I due
Workshop 1 (Feb 12)	Workshop I

PART II: Human Centered Data Collection and Methods: Tim Murtha
This module requires in-class student presentations and homework/assignments, which have to be passed with a minimum of B+

Topic 2.1 (Feb. 19)	Survey designs, questionnaires, sampling, sample bias; IRB
Topic 2.2 (Feb. 26)	Historical and ethnographic research methods

March 4   *UF Spring Break, no class*
Topic 2.3 (March 11)   Case study methods: ethnographic methods
March 15th at noon   Submission for Workshop II due on Canvas
Workshop II (March 18)   Workshop II

PART III: Quantitative Data Analysis: Zhong-Ren Peng
This module requires homework/assigments, which have to be passed with a minimum of B+
Topic 3.1 (March 25)   Data, measurements and data sources;
                                Choosing statistical techniques; Power analysis
Topic 3.2 (April 1)   Regression analysis
Topic 3.3 (April 8)   Time series policy analysis; Choice theory and modeling, machine learning
April 12th at noon   Submission for Workshop III due on Canvas
Topic 3.4 (April 15)   Workshop III

Final Student Poster Presentations and Project Submission
Final Presentations (Apr 22)   Student presentations
April 25th at noon   Submission of Final Semester Project due on Canvas

READING ASSIGNMENTS

You are expected to read the material before the class session (including the first class) and be ready to discuss in a seminar fashion during class sessions.

Required textbook:

- O'Leary, Zina, 2017. *The Essential Guide to Doing Your Research Project.* 3rd edition. Sage Publications Ltd. ISBN-13: 978-1473952089, ISBN-10: 9781473952089 (hereafter O'Leary)

Other required readings:

- PDFs of other required readings are available on the Canvas E-learning site.

Assignments:

Topic 1.1: Jan 9 FINDING AND HONING A RESEARCH QUESTION

- O'Leary: chapters 1, 2, 3, 4, 5, 6
- Wicker, Alan W. 1985. Getting out of our conceptual ruts: Strategies for expanding conceptual frameworks. *American Psychologist*, 40/10: 1094–1103.

Topic 1.2: Jan 16 TYPOLOGY AND METHODS OF LITERATURE REVIEWS

- Grant, Maria J. and Booth, Andrew. 2009. A typology of reviews: An analysis of 14 review types and associated methodologies
- Pettigrew, Mark. 2001. Systematic reviews from astronomy to zoology: Myths and misconceptions. *BMJ,* 322: 98–101
- Hart, Chris. 2005. Chapter 6: Mapping and analyzing ideas. (142-171) In *Doing a Literature Review.* Sage.

Topic 1.3: Jan 23 FORMULATING HYPOTHESES

- O'Leary: chapter 7
- Platt, John R. 1964. Strong inference. *Science,* 146 (3642): 347–352.

Topic 1.4: Jan 30 &Feb. 6, TYPOLOGY OF RESEARCH DESIGNS, METHODS AND METHODOLOGIES; RELATIONSHIP TO THEORIES AND PARADIAGMS; CREDIBILITY, VALIDITY, RELIABILITY
OPENING OF DCP RESEARCH SYMPOSIUM

- O'Leary: chapters 8, 9
- Groat, Linda and Wang, David. 2013. Chapter 9: Experimental and Quasi-Experimental Research. (313-348) In *Architectural Research Methods.* Second edition. Wiley
- OTHER READINGS FORTHCOMING

Workshop I: Feb 13

- Read your classmates' submissions

Topic 2.1: Feb 20 SURVEY DESIGNS & QUESTIONNAIRES, SAMPLING, SAMPLE BIAS; IRB

- O'Leary: chapters 10, 11
- Groat, Linda and Wang, David. 2013. Chapter 8: Correlational Research. (263-311) In *Architectural Research Methods.* Second edition. Wiley
- UF IRB (Institutional Review Board), Researcher Responsibilities: http://irb.ufl.edu/irb01/researcher-information/researcherresponsibilities.html

Topic 2.2: Feb 27 HISTORICAL AND ETHNOGRAPHIC METHODS (Student led in-class presentations)

- O'Leary: chapter 12

- Blomberg, Jeanette; Jean Giacomi; Andrea Mosher; and Pat Swenton-Wall. "Ethnographic Field Methods and Their Relation to Design." in Schuler, Douglas, and Aki Namioka. *Participatory Design: Principles and Practices.* Hillsdale, N.J: L. Erlbaum Associates, 1993.
- Brundage, Anthony. "Exploring Changing Interpretations: The Historiographic Essay." in *Going to the Sources: A Guide to Historical Research and Writing*. Wheeling, Ill: Harlan Davidson, 2002.
- Brundage, Anthony. "The Nature and Variety of Historical Sources." in *Going to the Sources: A Guide to Historical Research and Writing.* Wheeling, Ill: Harlan Davidson, 2002.
- Emerson, Robert M.; Rachel I. Fretz; Linda L. Shaw. "Fieldnotes in Ethnographic Research" in *Writing Ethnographic Fieldnotes.* Chicago, Ill: University of Chicago Press, 2013.
- Emerson, Robert M.; Rachel I. Fretz; Linda L. Shaw. "Processing Fieldnotes: Coding and Memoing" in *Writing Ethnographic Fieldnotes.* Chicago, Ill: University of Chicago Press, 2013.
- Greed, Clara. "The place of ethnography in planning: Or is it `real research'?" *Planning Practice & Research.* 9.2 (1994): 119–127.
- Lecompte, Margaret D. and Jean J. Schensul. "What is Ethnography?" in *Designing & Conducting Ethnographic Research.* Walnut Creek, Calif: AltaMira Press, 1999.
- Lecompte, Margaret D. and Jean J. Schensul. "When and Where is Ethnography Used?" in *Designing & Conducting Ethnographic Research.*Walnut Creek, Calif: AltaMira Press, 1999.
- Pink, Sarah; Dylan Tutt; Andrew Dainty. "Introducing Ethnographic Research in The Construction Industry." in *Ethnographic Research in the Construction Industry*. London: Routledge, 2013.
- Quinlan, Mary Kay. "Chapter 1: The Dynamics of Interviewing." in Ritchie, Donald A. (ed.) *The Oxford Handbook of Oral History.* New York: Oxford University Press, 2011.
- Ritchie, Donald A. "Introduction: The Evolution of Oral History." in Ritchie, Donald A. (ed.) *The Oxford Handbook of Oral History.* New York: Oxford University Press, 2011.

Topic 2.3: Mar 13 CASE STUDY METHODS; ETHNOGRAPHIC METHODS
- Campbell, Scott, 2003, Case studies in planning: Comparative advantages and the problem of generalization, University of Michigan Working Paper Series.
- Francis, Mark, 2001, A case study method for landscape architecture. *Landscape Journal*, 20.1: 15–29.
- Flyvbjerg, Bent, 2006, Five Misunderstandings About Case-Study Research. *Qualitative Inquiry.* 12.2: 219–245.
- Tellis. W., 1997, Application of a case study methodology. *The Qualitative Report.* 3.3.
- Yin, Robert K., 1981, The Case Study Crisis: Some Answers. *Administrative Science Quarterly.* 26.1: 58–65.

Workshop II: Mar 20
- Read your classmates' submissions

Topic 3.1: Mar 27 DATA MEASUREMENT AND DATA SOURCES; CHOOSING STATISTICAL TECHNIQUE
- Meier: chapter 2, 15, 16, 17
- Newman and Kenworthy, Winter 1989, Gasoline consumption and cities: A comparison of U.S. cities with a global survey, *APA Journal,* Winter 1989 (paper available in Canvas E-leanring)

Topic 3.2: Apr 3 REGRESSION ANALYSIS
- Meier: chapters 18, 19, 21.
- Gomez-Ibanez, Jose A. Summer 1991, A global view of automobile dependence, *APA Journal,* issue: 379 (paper available in Canvas E-leanring)
- Brindle, Ray. 1994. Lies, damned lies and "automobile dependence - Some hyperbolic reflections. *Australasian Transport Research Forum,* Vol. 19, Papers pp.117–131. Transport Research Centre, University of Melbourne. (paper available in Canvas E-leanring)

Topic 3.3: Apr 10 TIME SERIES POLICY ANALYSIS; CHOICE THEORY AND MODELING
- Meier: chapters 20 and 22.

- Introduction to choice theory and logit models (reading available in Canvas E-leanring).

Workshop III: APRIL 17
- Read your classmates' submissions

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Additional Reference Books Useful for Semester Project and Seminar Sessions:
- Andrews, Frank M., et al. (1981) A *Guide for Selecting Statistical Techniques for Analyzing Social Science Data.* 2nd edition. University of Michigan, Institute for Social Research
- Becker, Howard S. (1986) Writing *for Social Scientists: How to Start and Finish Your Thesis, Book or Article.* University of Chicago Press
- Booth, Wayne, Gregory Colomb and Joseph Williams (2008) *The Craft of Research* 3rd edition. The University of Chicago Press (hereafter Booth)
- Creswell, John (2003) *Research Design. Qualitative, Quantitative and Mixed Methods Approaches* 2nd edition. Sage Publications (hereafter Creswell)
- Fellows, Richard and Anita Liu (1997) *Research Methods for Construction* Blackwell Science. (hereafter Fellows). Note: this book is available in NetLibrary (see: http://www.uflib.ufl.edu/netlibrary.html)
- Few, Stephen (2009) Now *You See It: Simple Visualization Techniques for Quantitative Analysis.* Analytics Press
- Few, Stephen (2012) *Show Me the Numbers: Designing Tables and Graphs to Enlighten.* 2nd edition. Analytics Press
- Galvan, Jose L. (2013) *Writing Literature Reviews: A Guide for Students of the Social and Behavioral Sciences.* Routledge
- Hart, Chris. (2005) *Doing a Literature Review: Releasing the Social Science Research Imagination.* Sage Publications
- Isaac, Stephen and Michael, William B. (1985) *Handbook in Research and Evaluation.* 2nd edition. EdITS Publishers.
- Kumar, Ranjit (2010) *Research Methodology: A Step-by-step Guide for Beginners* 3rd edition. Sage Publications (hereafter Kumar)
- Meier, Kenneth J., Brudney, Jeffrey L. and Bohte, John (2011) *Applied Statistics for Public and Nonprofit Administration,* Eighth Edition, Cengage Learning (hereafter Meier)
- Roberts, Carol (2010) *The Dissertation Journey* 2nd edition. Corwin (hereafter Roberts)
- Turabian, Kate (2007) *A Manual for Writers of Research Papers, Theses, and Dissertations.* 7th edition. The University of Chicago Press (hereafter Turabian)
- Wong, Dona M (2010) The *Wall Street Journal Guide to Information Graphics.* WW Norton and Company.

SEMESTER PROJECT

The final project is a NSF-style research proposal. The content of the proposal will be derived from your dissertation proposal. So, you need to get familiar with both how to write a dissertation proposal and a NSF-style research proposal. Both are highly related but with some differences. Your choice of dissertation topic must be made in conjunction with your advisor, and also reflect the stage you are at in the doctoral program. Submit a ½ to 1 page topic statement to the instructors by **noon January 13.** Also identify in the statement the name of your doctoral advisor. You must have spoken with your doctoral advisor about the project's topic and direction before you submit this statement.

You need to ensure that your dissertation advisor is kept current with your project as it develops. We recommend you submit workshop submissions to him or her also. All advisors will be invited to the final presentation session on April 24.

Workshops
There will be three workshops in the class, organized along the different stages of this project. The purpose of the workshop is for peer students and faculty to give feedback on students' ongoing work (see below). The workshops are partially constructed along the lines of "writers' workshops," in that the author of the document is not allowed to respond or say anything about his/her own paper, but simply listens to the commentary, discussion and feedback of the group based on their prior reading of the proposal.

To make the workshop successful, please follow the following procedure: **First**, students are required to send their written ongoing paper (single space with 12 font size) to all students and faculty no later than the Sunday noon before the workshop day (see schedule for actual dates and times). Students are expected to read and comment on each student's paper submitted. ***If a paper is not submitted on time, it will not be discussed during the workshop. Once the Canvas site closes, you will be not able to submit anything***.

Second, a lead discussant will be assigned for each student's paper. The lead discussant will provide written and oral constructive criticism (i.e. strengths, limitations, potential directions or alternative approaches, major challenges, opportunities, etc.) of the assigned paper. Following the lead discussant's comments, the other peer students will also comment on the paper.

A "Project Evaluation" sheet will be distributed the second week of class (once we know each student's project topic); this identifies the various components of the project you need to address and include. Workshop assignments accounts for 60% of the final grade. The grade will be based on the quality of your project as well as the written and oral comments you gave to other students' work.

Reference Style
Please use the reference style that is the norm in your field; specify to the instructor which style you will be using (e.g. APA, MLA, Chicago Manual of Style, etc.). The maximum word count for the final paper is dictated by the NSF grant proposal standard (please refer to https://www.nsf.gov/funding/preparing/ and https://www.nsf.gov/pubs/policydocs/pappguide/nsf15001/gpg_print.pdf. Please use endnotes, no footnotes. Pages should be double-spaced with font size 12. Please number your pages, starting with the Introduction page (i.e. do not paginate title page and abstract).

Naming Files on Canvas
Anytime you submit an assignment, presentation, or homework please name it as follows:
mylastname_myfirstname_assignmentname.docx or .pdf or .pptx

GRADING POLICY

Grade Distribution for Workshops and Semester Project

1st workshop	First draft submission on Canvas Written comments as a lead discussant on Canvas Oral and written comments you gave to other students	15% 150 points
2nd workshop	Second draft submission on Canvas Written comments as a lead discussant on Canvas Oral and written comments you gave to other students	20% 200 points
3rd workshop	Third draft submission on Canvas Written comments as a lead discussant on Canvas Oral and written comments you gave to other students	25% 250 points
Presentation	Oral presentation in class	10% 100 points
Final paper	Final project submission on Canvas	30% 300 points

Given that different instructors grade student projects, grades will be standardized at the end of the term.

Homework and In-class Presentations/Critiques: In addition to the semester project and corresponding workshops, each module of the course has assignments of homework, and in-class presentations and critiques. You are given one week to complete/submit or prepare for these. All homework and in-class presentations/critiques must be satisfactorily completed by the deadlines. A satisfactory grade for each homework and in-class presentation/critique is B+ or above. A grade lower than B+ will result in a reduction of the final grade by a one- third of a letter grade. For example, if your overall class grade is an A-, but you failed or did not do your homework or in-class presentation/critique, your grade will be reduced to a B+.

Attendance and Your Final Grade: Roll will be taken at each session; more than two unexcused absences will result in the loss of one third of a letter grade. Being late by more than ten minutes on two occasions, or failing to comply with the in-class laptop/device policy on two occasions (see below, "Personal Standards") counts as one absence.

Late Work: We accept work past the deadline with a 25% grade deduction up to 24 hours after the deadline. The 25% will be deducted even if your work is late by one minute. While we accept this work for grading purposes, any workshop submissions past the deadline (even by one minute) will <u>not</u> be discussed in the workshop. We will not grade or review any work 24 hours past the deadline.

Grading Scale:

Letter Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E
Numeric Grade	93–100	90–92.99	87–89.99	83–86.99	80-82.99	77–79.99	73–76.99	70–72.99	67–69.99	63–66.99	60–62.99	0–59.99
GPA	4.0	3.67	3.33	3.0	2.67	2.33	2.0	1.67	1.33	1.0	0.67	0.0

OTHER CLASS POLICIES

Personal Standards: To be effective, a seminar requires everyone's respectful and attentive behavior. Given the number of students in the seminar, it may be necessary at times to raise your hand to be called upon to speak, in order to ensure that everyone's opinions and statements are heard. Respect the opinions and assessments made by your fellow classmates by responding with constructive feedback or debate. Being unprepared for class defeats the purpose of a seminar. *Only use your laptop and electronic devices for referring to the readings, references or workshop submissions – all other uses during the seminar are prohibited.* Failure to comply will be treated as "late attendance" (see above, "Attendance and Your Final Grade") with reduced final grade consequences.

Class Attendance: Students are expected to attend all classes and labs and to stay until the class period ends. Allowable reasons for missing class are illness, serious family emergency, religious observances, special curricular requirements (e.g. attending professional conference), military obligations, court-imposed legal obligations, severe weather conditions, and participation in official university activities. Roll will be taken at each session; more than two unexcused absences will result in the loss of in third of a letter grade. For example, if your grade is an A- and you missed three classes for no valid documented reason, your grade will be reduced to a B+. In the case of documented illness or family emergency, a schedule for the completion of make-up work must be determined with the instructor as soon as possible upon a student's return to class. Failure to comply with the agreed upon schedule will result in a failing grade for that project.

UF Attendance Policy is available at:
https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx.

UF and General Policies

Academic Honesty: Students in the class are expected to adhere to all University of Florida academic honesty policies. Failure to do so will result in lowered/failure grades and/or referral to the proper offices of University Administration. The following are some examples that are considered to be academic dishonesty:
- Copying graphics or texts from any sources for your report without crediting the original source;
- Representing someone else's work as your own;
- Allowing someone else to represent your work as his/her own;
- Multiple submissions of the same or similar work without prior approval;
- Cheating in exams (e.g., looking at books or notes in a closed-book examination).
- Falsifying information such as changing or leaving out data, such as manipulating or misreporting statistics for a research project; altering work after it has been submitted; hiding reference materials, etc.

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://www.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.

Course Evaluations: Students are expected to provide feedback on the quality of instruction in this course based on ten criteria. These evaluations are conducted online at https://evaluations.ufl.edu. Evaluations are typically open during the last two or three weeks of the semester; but students will be given specific times

when they are open. Summary results of these assessments are available to students at https://evaluations.ufl.edu.

Netiquette—communication courtesy: All class members are expected to follow rules of common courtesy in all email messages, threaded discussions and chats.
Please refer to: http://teach.ufl.edu/docs/NetiquetteGuideforOnlineCourses.pdf

Religious Observances: Please inform the instructor of any religious holidays or other days of special religious significance that may interfere with your participation in this class so that he or she can accommodate these events.

Special Consideration: The principle of equal treatment of all students is a fundamental guide in responding to requests for special consideration. No student shall be given an opportunity to improve a grade that is not made available to all members of the class. This policy is not intended to exclude reasonable accommodation of verified student disability or the completion of work missed due to religious observance, verified illness, or absence due to circumstances beyond your control. Reconsideration of subjective judgments of an individual student's work will be done only if all students in the class can be and are given the same consideration.

Sexual Harassment: Sexual harassment is reprehensible and will not be tolerated by the University. It subverts its mission and threatens the careers, educational experience, and well-being of students, faculty, and staff. The University will not tolerate behavior between or among members of the university community that creates an unacceptable working environment.

Stress: The academic year presents many opportunities as well as challenges, sometimes resulting in increased stress. If at any time you feel anxious or stressful, please contact the instructor or the university's Counseling + Wellness Center at http://www.counseling.ufl.edu/cwc/Default.aspx.

Course Evaluation

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.