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PHLD 9130 (Section 01H) CRN 84261 - Public Health Research Methods

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Georgia Southern University Jiann-Ping Hsu College of Public Health

PHLD 9130 (Section 01H) CRN 84261

Public Health Research Methods

Fall 2017

Instructor: Yelena N. Tarasenko, DrPH, CPH, MPH, MPA

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Office Hours: Wednesday 12:00 pm - 5:00 pm

(outside office hours: by appointment)

In-Class Meetings: 1:00 pm – 4:00 pm on Friday 08/18, 09/15, 10/13, and 11/10 in

Hendricks Hall - Classroom 3001

Course Prerequisite

Enrollment into the DrPH Leadership Program or permission of the instructor

Catalog Description:

The course focuses on the concepts and methods of health services and public health research. It is structured around the primary stages of research proposal development. It is designed for DrPH students in the College of Public Health and other graduate or professional students who have successfully completed the appropriate prerequisites. By the completion of this course, Students will acquire the necessary knowledge and skills to write a research proposal, plan for the dissertation, and develop and carry-out research projects.

Required Texts

Shi, L. (2005). Health Services Research Methods, 2nd edition. https://www.cengagebrain.com/shop/ProductDisplay?langId=1&storeId=10151&catalogId=10057&productId=502420

Trochim/Donnelly/Arora. (2016). Research Methods The Essential Knowledge Base, 2nd edition. https://www.cengagebrain.com/shop/isbn/9781133954774

Supplemental Readings are supplied by the instructor (e.g., http://www.nlm.nih.gov/nichsr/corelib/hsrmethods.html).

Doctor of Public Health-Core

- 1. Demonstrate their readiness to work with communities to address public health problems.
- 2. Select and apply theoretically based interventions to address public health problems.
- 3. Apply appropriate research methods to address community health problems, particularly among rural and underserved populations.

Doctor of Public Health-Concentration

Public Health Leadership

- 1. Interpret and formulate a "systems thinking" approach to solving public health problems associated with organizations.
- 2. Appropriately utilize leadership skills to plan, design, implement, and assess public health intervention programs.
- 3. Critique and respond to the many internal and external conditions that can influence resource allocation on communities, with an emphasis in rural and underserved areas.
- 4. Formulate and conduct relevant policy-based research using appropriate research designs and analytic techniques.
- 5. Communicate public health leadership principles and concepts to lay and professional audiences through both oral and written communication.

Cross-Cutting Competencies for the DrPH Degree

- 1. Apply evidence-based practice, generation of practice-based evidence, and leadership positions that apply and synthesize translational and implementation science findings in governmental, non-profit, and private-sector settings as well as teaching, research, and service in academic roles at the undergraduate or graduate level.
- 2. Demonstrate the ability to generate products that discover, apply, and synthesize evidence from a broad range of disciplines and health-related data sources, in order to advance programs, policies, or systems addressing population health. Learning products may be created in a range of formats.
- 3. Demonstrate leadership in increasingly interdisciplinary, inter-professional and cross-sectoral roles and settings.
- 4. Develop innovative, current, and proactive approaches to adapt to the ever-changing public health systems and health care landscape.
- 5. Explain a core, interdisciplinary orientation toward evidence-based public health practice, leadership, policy analysis and development, evaluation methods, and translational and implementation research to generate practice-based evidence.

6. Demonstrate an ability to work in a global context, recognizing the relationships among domestic and global issues.

DrPH Program Competencies in Public Health Leadership

- 1. Evaluate the economic, professional, social and legislative influences as well as values and ethical dilemmas in public health that are inherent in efforts to control cost, while assuring access and quality of services, safety and preparedness, for the public.
- 2. Analyze the trends in planning, resource allocation, and financing and their effects on consumers, providers, and payers in public health; evaluate the main components and issues of the organization, financing and delivery of public health systems in the US.
- 3. Evaluate the application and role of policy and management on the conduct of public health research and practice through the application of qualitative and quantitative research methods for public health problem solving; evaluate grants, proposals or cooperative agreements for funding from external sources.
- 4. Assess the ability to manage programs within budget constraints through analysis of budget preparation with justification and evaluation as related to public health initiatives; apply prevention effectiveness models to prevention strategies through cost effectiveness, costbenefit, and cost-utility analysis.
- 5. Analyze leadership skills for building partnerships in public health; analyze health policy and management effectiveness using appropriate channels and technologies.
- 6. Evaluate the process for strategic planning and marketing for public health through the analysis of quality, cost benefit, and performance improvement concepts and develop a plan to implement a policy or program, including goals, outcomes and process objectives, staffing plans, budget and implementation steps.
- 7. Analyze the policy development, assessment, and evaluation process for improving the health status of populations including urban rural differences wile applying population and individual ethical considerations in relation to benefit, cost and burden of public health programs. Use this knowledge to advocate for programs and resources that advance the health of the population
- 8. Analyze information from various sources to resource and program decision making and evaluate how "systems thinking" can contribute to solving public health organizational issues and problems while being mindful of the principles of health equity for public health problem solving.

Course Objectives (Each of them is Linked to the Concentration Competencies 3, 7, and 8):

At the conclusion of satisfactory participation in this course, the student will be able to accomplish the following.

- 1. Explain the breadth of health services research theoretical and conceptual knowledge
- 2. Explain the relationship among theory, research, and practice.
- 3. Pose innovative and important research questions.
- 4. Prepare an appropriate, timely, and relevant research proposal.
- 5. Organize and prepare the literature review section of a research proposal.
- 6. Write appropriate problem statement and research questions for various types of quantitative, qualitative and mixed methods research.
- 7. Select appropriate interventional or observational study designs to address specific health services research questions.
- 8. Analyze the effectiveness of various research designs to answer a specific research question.
- 9. Know how to assemble secondary data from existing public and private sources.
- 10. Explain similarities and differences between quantitative, qualitative, and mixed research approaches (19).
- 11. Evaluate efforts to secure study participants using sampling methods.
- 12. Evaluate instruments and designs to develop appropriate statistical analysis plans.
- 13. Use appropriate statistical or analytical methods to clarify associations between variables and to delineate causal inferences.
- 14. Analyze the ethical issues associated with the selection of a research topic, research participants, and research designs.
- 15. Effectively communicate the findings and implications of public health services research through multiple modalities to technical and lay audiences.
- 16. Understand the importance of collaborating with policy makers, organizations, and communities to plan, conduct, and translate health services research into policy and practice.
- 17. Analyze the implications of research findings for public health leadership and practice.

Overview of the Content to be Covered During the Semester*:

Date	Topic	Assignments
14 August	Course Orientation/Introductions.	Please see the "welcome" message posted online; Response to my "welcome" message is DUE by 11:59 pm on Wednesday August 16 so I can verify your attendance.
18 August	In-class Meeting: Course	Lectures and hands-on in-class exercises
	Orientation; Scientific Inquiry and Conceptualization. Ethics in Research.	Chs 1 & 2 in Shi; Chs 1 & 2 in Trochim et al
25 August	Scientific Inquiry and Conceptualization. The Research Road-Map.	Chapters 1-3 in Shi; Chs 1 & 2 in Trochim et al.
	Proposing a Research	Supplemental materials posted
	Question (from question to	online (including the
	hypothesis; from hypothesis to decision).	Dissertation Guidelines).
	Structuring the Research Proposal. Ethics in Research.	http://www.ncbi.nlm.nih.gov/pubmed/25 113139
1 September	Reviewing the Literature	Chapter 4 of Shi.
	(establishing the background and significance of you research endeavor). A Case Study of Meta-Analysis.	Supplemental reading: Brind J, et. al. Induced abortion as an independent risk factor for breast cancer: a comprehensive review and meta-analysis J Epid & Comm Hlth. 1996; 50:481-496.
	Boolean Logic and Literature Searches.	Supplemental readings posted online: Literature search – using Boolean logic when searching with multiple keywords.
8 September	Primary Data Collection vs. Secondary Data Sources. Sources of Secondary Data (use of secondary data and secondary data analysis). Specific Uses of Some Secondary Datasets.	Chapters 3 (pps. 74-86) & 5 of Shi. Supplemental materials posted online: (1) Data availability from NCHS (2) Examples of uses of data from NCHS; by whom it is used; how it can be accessed, etc.
15 September	In-Class Meeting: Lecture and Article Critique.	Article critique is DUE Chapters 7 & 10 of Shi; Refer to CITI website and ORSSP of Georgia Southern University. Lecture notes. Chapters 8-10 of Trochim et al
September 22	Research Design	Chs 7,8 10,11 (pages 265 through

September 29	(continues, if needed). Primary Data Collection (survey research overview; sampling). Primary Data Collection (continues: sample size: how many obs./exp. units you need; measurement issues).	"snowball sampling" on p. 279) of Shi & some other material in lecture notes. Chs Chs 11 (pps. 279-287) and 12 of Shi and lecture note material. Chs 4-7 of Trochim et al
October 6	Making Sense of the Data Analysis.	Ch 14 of Shi and Ch 11 of Trochim –
October 13	In-Class Meeting: Midterm Exam, and Article Critique	Article critique is DUE Midterm Exam
October 20	Data Management Issues: Data Collection & Processing.	Ch 13 of Shi
October 27	Evaluation Research.	Ch 9 of Shi and Ch 3 of Trochim. Reed PS, Foley KL, Hatch J, and Mutran EJ "Recruitment of Older African Americans for Survey Research: A Process Evaluation of the Community and Church-Based Strategy in the Durham Elders Project", The Gerontologist (2003); 43(1):52-61.
November 3	Qualitative Research. Qualitative Research in Action.	Ch 6 of Shi. Office of Behavioral and Social Sciences Research, Qualitative Methods in Health Research: Opportunities and Considerations in Application and Review. Rockville, MD: National Institutes of Health, 2000 Examples of qualitative research.
November 10	In-Class Meeting: Lecture and Article Critique	Article critique is DUE
November 17	Mixed Methods Research.	Supplemental readings.
November 24	Sharing your Research with Others (data reduction, presentation, and dissemination) Getting Your Proposal Funded.	Ch 15 of Shi and Ch 13 of Trochim A useful website: www.socialpsychology.org/funding.htm
December 4	Final Exam (Online)	

^{*} The order and due dates of topics and assignments are subject to change with the prior notice and agreement with students as appropriate to ensure course progress.

Instructional Methods:

This doctoral course is offered in a hybrid format: it will meet 4 times during the semester (please see aforementioned times), while the rest of the course will be delivered online using

the Folio system. Homework assignments, in-class presentation and final examination constitute the basis of student evaluation. Students are expected to make use of instructor's office hours and in-class meeting to discuss concepts or difficulties they may have.

Grading:

Your final course grade will be assigned according to the following.

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A (100\% - 90\%; 900 - 1000 \text{ points}) – high achievement;
B (89\% - 80\%; 800-899 \text{ points}) – satisfactory achievement;
C (79\% - 70\%; 700 - 799 \text{ points}) – minimum passing grade;
Failing grade (\leq 69\%; \leq 699 \text{ points})
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Course grades will be based upon evaluation of the following activities:

Weekly quizzes 10 pts each (150 pts total)

Mid-term exam (in-class) 200 pts Final exam (online) 245 pts

Article critiques 135 pts each (405 pts total)

Readiness assessment quiz

Teamwork and discussion participation

Final submission in writing

Total (i.e., all course activities)

15 pts

20 pts

100 pts

PLEASE NOTE THE LAST DAY TO WITHDRAW without ACADEMIC PENALTY is October 9, 2017.

Blinded grading will be employed throughout the course for material submitted via Dropbox. Be sure to put the last 4 digits of your Eagle ID on your writing assignments instead of your name. Any assignments with names or without proper identification will be ungraded until corrected and subject to the late submission policy.

<u>Late Submission</u> If you do not complete and submit an assignment <u>on time</u> (<u>no matter what the reason</u>) and do not make prior arrangements with me in regard to this, you will receive 0% for that assignment.

<u>Grade Appeals, Question, etc.</u> Questions about grades, including requests to revise a grade, <u>will</u> only be considered if submitted in writing in a form of a Memo addressed to me. Such memos will be reviewed only if submitted within 72 hours after the grade in question has been posted. See examples of Memos at https://owl.english.purdue.edu/owl/resource/590/04/. Each Memo should have To, From, Date, Subject fields completed. It should clearly state the questions and supporting arguments.

Ouizzes

There will be a weekly quiz for each module/topic. Regular quizzes will consist of 10-20 questions. Questions in each quiz are randomized. Quizzes are timed depending on the number of questions given (e.g., ranging from 10-20 minutes) to allow for all types of readers to finish them if you have prepared by reading the provided materials. You will not be allowed to assess the subsequent

modules until you have completed the prior quiz. There are 15 quizzes. More details are posted in Folio (see <u>instructions before each quiz</u>). <u>Please note</u>: the Quiz WILL NOT be visible/accessible until you review (i.e., open and read through or listen to, as appropriate) all the Module components.

<u>Mid-term exam</u> will be conducted in-class. The exam will cover all the materials until the exam date. More details are posted in Folio.

Final Exam will be online. It will be comprehensive.

<u>Written Assignments</u>: Article critiques (including reading, taking readiness assessment quiz inclass, teamwork and discussion participation, and follow-up reflection and final submission). There will be three article critiques. The final product must be typewritten, double-spaces, and no more than <u>three-five</u> pages long. An explanation of what constitutes a worthwhile critique is posted in Folio.

Instructor Expectations

- 1. I expect you to attend every one of the four class sessions. The components are highly interrelated; missing a class will detract from the learning potential of subsequent sessions, as well as your evaluation of in-class discussion.
- 2. I expect you to be in the classroom and prepared to begin work at the scheduled starting time for each session.
- 3. I expect you to actively participate in the discussions. This is not the type of class where you can "sit back and listen."
- 4. I expect you to submit written assignments using proper English grammar, syntax, and spelling. You are encouraged to use spell check and grammar check prior to submitting your written work. The University Writing Center is available to anyone who may need assistance (http://class.georgiasouthern.edu/writingc/). Grammar, syntax, and spelling will account for 10% of the grade for each assignment.
- 5. I expect (and encourage) you to provide honest and timely feedback regarding the content and process of this course throughout the semester.
- 6. I expect (and encourage) you to share the responsibility for making this course an enjoyable and beneficial learning experience.
- 7. Wikipedia *cannot* be used as a cited reference as noted by a co-founder of Wikipedia! You may use Wikipedia to identify appropriate source material. Remember Wikipedia is *not* peer reviewed!
- 8. I require that each leaner will be consistent in his/her usage of referencing/citation, formatting style, etc. as a guide for writing papers for this course and the grading rubric will be based on its precepts.

Academic Misconduct:

As a student registered at this University, it is expected that you will adhere to only the strictest standards of conduct. It is recommended that you review the latest edition of the *Student Conduct Code* book, as well as the latest *Undergraduate & Graduate Catalog* to familiarize yourself with the University's policies in this regard. Your continued enrollment in this course is an implied contract between you and the instructor on this issue; from this point forward, it is

assumed that you will conduct yourself appropriately.

Academic integrity relates to the appropriate use of intellectual property. The syllabus, lecture notes, and all materials presented and/or distributed during this course are protected by copyright law. Students are authorized to take notes in class, but that authorization extends only to making one set of notes for personal (and no other) use. As such, students are not authorized to sell, license, commercially publish, distribute, transmit, display, or record notes in or from class without the express written permission of the instructor.

The Fine Print:

- "According to the Academic Dishonesty Policy of GSU, Plagiarism includes (but is not limited to):
- A. Directly quoting the words of others without using quotation marks or indented format to identify them.
- B. Using published or unpublished sources of information without identifying them.
- C. Paraphrasing material or ideas without identifying the source.
- D. Unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic material.

If you are accused of plagiarism by a JPHCOPH, the following policy, as per the Judicial Affairs website (http://students.georgiasouthern.edu/judicial/faculty.htm) will be enforced:

PROCEDURES FOR ADJUDICATING ACADEMIC DISHONESTY CASES

First Offense - In Violation Plea

- 1.If the professor and the Dean of Students agree that the evidence is sufficient to warrant a charge of academic dishonesty, the professor should contact the Office of Judicial Affairs to determine if this is a first violation of academic dishonesty. The incident will be reported via the following
- website: http://students.georgiasouthern.edu/judicial/faculty.htm
- 2. If it is a first violation, the professor should talk with the student about the violation. If the student accepts responsibility in writing and the professor decides to adjudicate the case, the following procedures will be followed: a. The student will be placed on disciplinary probation for a minimum of one semester by the Office of Judicial Affairs.
- b. The student will be subject to any academic sanctions imposed by the professor (from receiving a 0 on the assignment to receiving a failing grade in the class).
- Scan copy of all the material involved in the case (Academic Dishonesty Report Form and the Request For Instructor to Adjudicate Form) and a brief statement from the professor concerning the facts of the case and the course syllabus should be mailed to the Office of Judicial Affairs for inclusion in the student's discipline record.

First Offense - Not In Violation Plea (student does not admit the violation)

If the professor and the Dean of Students agree that the evidence is sufficient to warrant a charge of academic dishonesty, the professor should contact the Office of Judicial Affairs to determine if this is the first or second violation of academic dishonesty. The student will be charged with academic dishonesty and the University Judicial Board or a University Hearing Officer would hear the case. If the student is found responsible, the following penalty will normally be imposed:

- a. The student will be placed on Disciplinary Probation for a minimum of one semester by the Office of Judicial Affairs.
- b. The student will be subject to any academic sanctions imposed by the professor.

Second Violation of Academic Dishonesty

If the professor and the Dean of Students agree that the evidence is sufficient to warrant a charge of academic dishonesty, and if it is determined this is the second violation, the student will be charged with academic dishonesty and the University Judicial Board or a University Hearing Officer would hear the case.

If the student is found responsible, the following penalty will normally be imposed:

- a. Suspension for a minimum of one semester or expulsion.
- b. The student will be subject to any academic sanctions imposed by the professor.

NOT RESPONSIBLE FINDING

When a student is found not responsible of academic dishonesty, the work in question (assignment, paper, test, etc.) would be forwarded to the Department Chair. It is the responsibility of the Department Chair to ensure that the work is

evaluated by a faculty member other than the individual who brought the charge and, if necessary, submit a final grade to the Registrar. For the protection of the faculty member and the student, the work in question should not be referred back to the faculty member who charged the student with academic dishonesty.

In the case of a Department Chair bringing charges against a student, an administrator at the Dean's level will ensure that the student's work is evaluated in an appropriate manner.

CONFIDENTIALITY

In accordance with provisions of the Family Educational Rights and Privacy Act of 1974 and the Georgia Open Records Act, any information related to a violation of academic dishonesty or the outcome of a judicial hearing regarding academic dishonesty, is prohibited and must be treated as confidential by members of the faculty."

Academic Handbook:

Students are expected to abide by the Academic Handbook, located at http://students.georgiasouthern.edu/sta/guide/. Your failure to comply with any part of this Handbook may be a violation and thus, you may receive an F in the course and/or be referred for disciplinary action.

University Calendar for the Semester:

The University Calendar is located with the semester schedule, and can be found at: http://calendar.georgiasouthern.edu/

Attendance Policy:

Federal regulations require attendance be verified prior to distribution of financial aid allotments. Attendance will not be recorded after this initial period.

Accommodations

If you have a documented disability that requires academic accommodations, please see me as soon as possible during scheduled office hours. In order to receive accommodations in this course, submit to me a Letter of Accommodation from the Student Disability Resource Center (http://students.georgiasouthern.edu/disability/). If you have not already done so, please register with the Student Disability Resource Center for coordination of campus disability services available to students with disabilities.

One Final Note:

The contents of this syllabus are as complete and accurate as possible. The instructor reserves the right to make any changes necessary to the syllabus and course material. The instructor will make every effort to inform students of changes as they occur. It is the responsibility of the student to know what changes have been made in order to successfully complete the requirements of the course.