Time:  
The class will meet on Mondays from 9-11:50am via Zoom. Our meetings will be synchronous.

Location:  
This class is scheduled to be taught in the LIVE ONLINE modality.  
You may join the class via Zoom in D2L: https://d2l.arizona.edu/d2l/home/937224

Instructor(s) and Contact Information:  
Patricia Haynes, PhD, CBSM, DBSM  
Associate Professor, Department of Health Promotion Sciences  
Tel: (520) 626-1855  
E-mail: thaynes@arizona.edu  
https://publichealth.arizona.edu/directory/patricia-haynes

Instructor Availability: Please do not hesitate to schedule an individual Zoom appointment with Dr. Haynes for any questions related to the course or assignments. Dr. Haynes typically responds to questions within one business, working day, Monday – Wednesday, 8a- 5pm (except for UA holidays).

Catalog Description: This modular course provides an opportunity for doctoral level students to advance their understanding and skills in public health research and evaluation methods. The course is structured to guide students through the development of their own research project following guidelines set by federal funding agencies. This course covers priority setting, conceptual modelling, behavior change theory and intervention, research design and evaluation, and survey and measurement.

Course Description:

1. **Introduction to HPS Research/Selecting a Research Question:** In this module, students will learn skills in conceptualizing and developing research and evaluation projects in Health Promotion Sciences. Students will learn how to pick research questions, incorporate the scientific knowledge base, develop conceptual models, and write project goals and objectives.

2. **Behavior Change Theory and Intervention:** In this module, students will learn major health behavior change theories applied at the individual, interpersonal, and group/ community levels. Students will evaluate recent examples of health interventions incorporating behavior change theory in order to inform their own research and practice.
3. **Survey and Measurement**: Students will be provided an overview of validity, reliability, and principles of test construction to inform decisions about the measurement of proposed constructs.

4. **Research Design**: In this module, students will review threats to internal validity and review common quasi-experimental designs. Students will be introduced to randomized controlled trial methodology with a focus on methods for the assessment and maintenance of group equipoise (e.g., selection of a control group, intervention training and fidelity monitoring, etc.).

5. **Ethics in Human Subjects Research**: Students will be provided with an applied overview of ethical principles relevant to the conduct of human subjects’ research.

**Course Prerequisites**: Enrollment in a doctoral program in health promotion sciences or consent of the instructor. All students must have taken or concurrently be enrolled in BIOS 576A Biostatistics in Public Health or the relative equivalent.

**Course Objectives and Expected Learning Outcomes:**

**Course Objectives**
During this course, students will:

1. Conceptualize a health-related project from the initial phase of project formulation incorporating:
   a. a conceptual model
   b. a theoretical framework
2. Develop skills in key components of project planning and evaluation with particular reference to:
   a. research design
   b. survey and measurement
3. Demonstrate essential skills in communication including scientific writing and oral presentation

**Learning Outcomes (Competencies Obtained):**
Upon completion of this course students will be able to:

**Program Competencies Covered (HBHP):**

1. Articulate the importance for using multiple methodologies in the study of a health behavior health promotion.
2. To utilize complex theories of health behavior health promotion that express multiple levels of causal factors or mechanisms for health promotion intervention.
3. Apply theories, frameworks, methods or paradigms to conduct health behavior health promotion research.

**Program Competencies Covered (DrPH/MCH):**

1. Apply and integrate appropriate measures of maternal and child health with behavior change theory into a study design for research study or a program evaluation.

**Course Notes**: Reading assignments and course materials will be made available on the course web site at D2L. It is your responsibility to frequently check course announcements to ensure that you are prepared for class and also that there have not been changes or substitutions.

**Required Texts or Readings:**

For other required readings, see Course Schedule below. Readings are tentative and may be changed depending upon class needs. All readings will be posted on D2L.

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Required or Special Materials: For this class you will need daily access to the following hardware: computer or web-enabled device with webcam and microphone; regular access to reliable internet signal; ability to download and run the following software: web browser, Adobe Acrobat, G Suite, Microsoft Word, Zoom.

Course Requirements:
To learn principles and skills in research and methodology, students are to write a research proposal incorporating at least one quantitative aim. The purpose of this major assignment is to prepare you for the conduct of research or evaluation in a health-related field. The proposal must include the following sections: Background, Hypotheses, Methods (Design, Participants, Procedures, Measures). The following assignments represent incremental steps to assist you with the process of writing this proposal: Topic brainstorm/brief review, Preliminary conceptual model, Background and Hypotheses, Methods, Full Proposal 1 & 2. You will also participate in peer critique in order to improve the quality of your research plan and also to develop skills in scientific peer review. On the last day of class, you will give a brief ‘elevator speech’ on your proposal using a quad chart to refine your skills in oral communication. Detailed information about each assignment will be provided on D2L.

During the Theory and Intervention module, we will review select individual, interpersonal, and community/organizational level interventions. You will work with a peer to develop a brief presentation on one health behavior change theory. Each of you will lead separate class discussion critiquing a recent, research paper that utilizes the theory you are assigned. The purpose of this exercise is to promote an understanding of how health behavior change theory is used in health promotion research. This assignment will also cultivate your skills in oral communication. On the days you are not presenting, you are required to post two Discussion Points in D2L on the Discussion Board prior to class. Discussion points are questions or comments about the readings. This module is designed to provide examples of various theory-informed research designs that can inform your own research proposal.

During the Measurement module, you are again be required to post two separate Discussion Points about the readings on the Discussion Board prior to class. This module is designed to provide an overview of survey validation.

Fifty points are provided for completion of CITI program (https://about.citiprogram.org/en/homepage/) research ethics and compliance training, social behavior sciences basic module. The purpose of this assignment is to provide historic and current information on regulatory and ethical issues important to the conduct of research involving human subjects. A CITI completion certificate is required by the University of Arizona Human Subjects Protection Program for engagement in human subjects research.

Fifty points are provided for a Responsible Conduct of Research workshop (http://rgw.arizona.edu/research-compliance/rcr/workshops) or graduate student writing group or 30-min tutoring session at the Writing Skills Improvement program (WSIP; http://wsip.arizona.edu). Substitutions may be approved with prior permission of Dr. Haynes. The purpose of this assignment is to foster your awareness of available research training resources outside of the classroom environment. Please document your time/ attendance at this activity by uploading some proof of attendance to the relevant assignment folder in D2L; proof of attendance must include time spent and could be a screenshot of the workshop, a tutor email, and/or self-attestation.

Grading Scale and Policies:
Grades on your assignments are provided by Drs. Haynes based on specific assignments and class participation. With the exception of Discussion Points, all documents must be deposited in the D2L Assignment Folder. It is your responsibility to ensure that the instructor receives your assignments by the due date and time; all times will be specified on the Assignment Folder in D2L. Typically, assignments requiring in-class participation will

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be due on Monday morning at 9am. All other assignments will be due on Wed at 1130pm. Problems with technology will not be accepted as sufficient reason for late or non-submission of required assignments.

Together, the grades sum to 1000. Your course grade will be based on the following grading scale: A = 1000-900 points, B = 899-800, C = 799-700, D = 699-600, E = 599-0. This scale may be revised, if necessary.

University policy regarding grades and grading systems is available at http://catalog.arizona.edu/policy/grades-and-grading-system. Any assignments associated with academic misconduct will automatically be awarded a grade of zero.

**Policy on Late Assignments:** It essential that assignments are submitted by the time and date specified in order to stay caught-up on class assignments. *A 5% point reduction will occur each day the assignment is late unless prior arrangements are made with Dr. Haynes.*

**Class attendance:**
- If you feel sick, or may have been in contact with someone who is infectious, stay home. Except for seeking medical care, avoid contact with others and do not travel.
- Notify Dr. Haynes if you will be missing an online course.
- **Campus Health** is testing for COVID-19. Please call (520) 621-9202 before you visit in person.
- Visit the UArizona COVID-19 page for regular updates.
- Any student who does not attend the first two classes and does not contact the instructor may be automatically dropped from the course.

**Incomplete (I):** Requests for incomplete (I) must be made in accordance with University policies, which are available at http://catalog.arizona.edu/policy/grades-and-grading-system#incomplete. UA policy states: “The grade of I may be awarded only at the end of a term, when all but a minor portion of the course work has been satisfactorily completed. The grade of I is not to be awarded in place of a failing grade or when the student is expected to repeat the course; in such a case, a grade other than I must be assigned. Students should make arrangements with the instructor to receive an incomplete grade before the end of the term.”

**Withdrawal (W):** Requests for withdrawal (W) must be made in accordance with University policies, which are available at http://catalog.arizona.edu/policy/grades-and-grading-system#Withdrawal. You may withdraw from the course with a deletion from your enrollment record through September 20 using UAccess. You may withdraw with a grade of "W" through November 1 using UAccess. After November 2, you may complete a Late Change Petition to request for a withdrawal through the college. These withdrawals are dealt with on a case by case basis, and requests for late withdrawal may or may not be honored.

**Required examinations, papers and projects:**
You are required to have 1 final paper, 1 quad chart, and 1 elevator speech presentation, which are the cumulative products of 5 prior written assignments (topic brainstorm, conceptual model, background & hypotheses, full proposal 1, and full proposal 2). In addition, you will have 1 peer critique.

In addition, you will have 4 discussion point assignments (8 discussion points total). You will also have 1 group oral presentation/discussion leading experience on health behavior change theory. You will be required to attend two extracurricular research learning activities.

There is no final exam for this class. The final project is due on Wednesday, Dec 9 at 1130pm.

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<thead>
<tr>
<th>Assessment Methods</th>
<th>Due Date</th>
<th>Points</th>
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<tbody>
<tr>
<td>Topic brainstorm / brief review</td>
<td>9/2/20</td>
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<tr>
<th>Assessment</th>
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<th>Points</th>
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<tbody>
<tr>
<td>Preliminary conceptual model / research questions</td>
<td>9/16/20</td>
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<tr>
<td>Oral presentation, theory</td>
<td>TBD (9/21, 9/28, or 10/5)</td>
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<tr>
<td>Theory discussion points 1</td>
<td>TBD (9/21, 9/28, or 10/5)</td>
<td>25</td>
</tr>
<tr>
<td>Theory discussion points 2</td>
<td>TBD (9/21, 9/28, or 10/5)</td>
<td>25</td>
</tr>
<tr>
<td>Measurement discussion points 1</td>
<td>10/12/20</td>
<td>25</td>
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<tr>
<td>Background, hypotheses</td>
<td>10/14/20</td>
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<tr>
<td>Measurement discussion points 2</td>
<td>10/19/20</td>
<td>25</td>
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<tr>
<td>Background, hypotheses, methods (full proposal 1)</td>
<td>11/4/20</td>
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<tr>
<td>Revised full proposal 2 (to peer)</td>
<td>11/23/20</td>
<td>50</td>
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<tr>
<td>Peer critique (in class)</td>
<td>11/23/20</td>
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<td>CITI Training (social sciences)</td>
<td>11/30/20</td>
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<tr>
<td>WSIP or RCR</td>
<td>12/7/20</td>
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<tr>
<td>Quad chart &amp; elevator speech</td>
<td>12/7/20</td>
<td>100</td>
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<td>Final, revised research proposal 3</td>
<td>12/9/20</td>
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**Description of each Assessment and Competencies Covered by the Assessment**

**Oral Presentation:** In collaboration with another member of the class, you are required to lead an oral presentation and class discussion that (a) briefly reviews a health behavior change theory and (b) critiques two research papers that utilize health behavior change theory incorporating variables at multiple levels (individual, interpersonal, and community/organization). As part of this group assignment, you are required to lead one, 30-minute discussion on one research paper. Specific guidelines for the assignments will be posted on D2L. This presentation is designed to fulfill the PhD HBHP competency #2. It will also provide experience with health behavior change theory that will assist with the fulfillment of DrPH MCH competency #1 (see Paper below).

**Discussion Points:** You are required to write two sets of Discussion points that involves a critique of research papers examining (a) health behavior change theory and intervention and (b) measurement in health promotion. Specific guidelines for the assignment will be posted on D2L. Writing discussion points involves: (1) articulating strengths and limitations of various research methodologies; and (2) applying health behavior change theory to research questions. This assignment will assist with the fulfillment of PhD HBHP competency #1 and DrPH MCH competency #1 (see Paper below).

**Paper:** You are required to write a 7 page single-spaced research proposal (“Final revised research proposal”) that (a) involves at least one health outcome relevant to public health and (b) incorporates at least one quantitative aim. Specific guidelines for the assignment will be posted on D2L. Writing a background section for a research plan involves: (1) an articulation of research methodology and (2) an integration of knowledge and theory via a literature review. Writing a research design plan involves application of research design principles, including a measurement plan. Writing a research plan also requires writing skills that effectively communicate the significance of the research. Therefore, this major project is designed to fulfill the PhD HBHP competency #1, #3 and DrPH MCH competency #1. All other assessments are designed to assist you with the goal of writing this final project; they represent incremental or iterative steps to support the Revised, final project.

**Required extracurricular activities:**
Students are required to complete the online CITI program (https://about.citiprogram.org/en/homepage/) research ethics and compliance training, social behavior sciences basic module. This program requires 30-45
minutes. They are also required to attend one of the following online programs: WSIP tutoring session (30 minutes), WSIP writing workshop (https://wsip.arizona.edu/; 50 minutes) or a RCR workshop (https://rgw.arizona.edu/research-compliance/rcr/workshops; 90 minutes).

Class Recordings:
- Course recordings will be made. For lecture recordings, which are used at the discretion of the instructor, students must access content in D2L only. Students may not modify content or re-use content for any purpose other than personal educational reasons. All recordings are subject to government and university regulations. Therefore, students accessing unauthorized recordings or using them in a manner inconsistent with UArizona values and educational policies are subject to suspension or civil action.
- Please let Dr. Haynes know if you do not wish to be identified by name.

Classroom Behavior: To promote engagement for this doctoral-level class, it is highly preferred that your video remain on for the duration of class. Students are encouraged to engage in a respectful exchange of ideas and communicate in a manner that maintains a positive learning environment. Please turn off your cell phone during class and use your computer for classroom activities only. Students are expected to be familiar with the UA Policy on Disruptive Student Behavior in an Instructional Setting found at: http://policy.arizona.edu/education-and-student-affairs/disruptive-behavior-instructional-setting.

Communications: You are responsible for reading emails sent to your UA account from your instructor and the announcements that are placed on the course website. Information about readings, news events, your grades, assignments and other course related topics will be communicated to you with these electronic methods. The official policy can be found at: https://www.registrar.arizona.edu/personal-information/official-student-email-policy-use-email-official-correspondence-students

Life challenges: If you are experiencing unexpected barriers to your success in your courses, please note the Dean of Students Office is a central support resource for all students and may be helpful. The Dean of Students Office can be reached at 520-621-2057 or DOS-deanofstudents@email.arizona.edu.

Physical and mental-health challenges: If you are facing physical or mental health challenges this semester, please note that Campus Health provides quality medical and mental health care. For medical appointments, call (520-621-9202. For After Hours care, call (520) 570-7898. For the Counseling & Psych Services (CAPS) 24/7 hotline, call (520) 621-3334.

UA Smoking and Tobacco Policy:
The purpose of this Policy is to establish the University of Arizona’s (University) commitment to protect the health of University faculty, staff, students, and visitors on its campuses and in its vehicles, http://policy.arizona.edu/ethics-and-conduct/smoking-and-tobacco-policy.

University-wide Policies link:
Links to the following UA policies are provided here: https://academicaffairs.arizona.edu/syllabus-policies

- Absence and Class Participation Policies
- Threatening Behavior Policy
- Accessibility and Accommodations Policy
- Code of Academic Integrity
- Nondiscrimination and Anti-Harassment Policy
- Subject to Change Statement

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<tr>
<th>Date</th>
<th>Topic</th>
<th>Readings</th>
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<tr>
<td>7-Sep</td>
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| 14-Sep | Theory and Intervention: overview  
*Guest Instructor (1030-1145): Dr. Uma Nair, PhD, Family and Community Medicine* | • Glanz, Rimer, & Viswanath, Chapter 3 Ecological Models of Health Behavior - Sallis, J. F. & Owen, N.  
| 21-Sep | Theory and Intervention: individual level studies  
• TBD – Assigned by Groups 1,2  
• Glanz, Rimer, & Viswanath, *2 Chapters from Ch 5-7 | Group 1,2 |
| 28-Sep | Theory and Intervention: interpersonal level studies  
• TBD - Assigned by Groups 3,4  
• Glanz, Rimer, & Viswanath *2 Chapters from Ch 9-13 | Group 3,4 |
| 5-Oct | Theory and Intervention: community level studies  
• TBD - Assigned by Groups 5,6  
• Glanz, Rimer, & Viswanath *2 Chapters from Ch 15-17 | Group 5,6 |
| 12-Oct | Measurement 1  
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<tr>
<th>Date</th>
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<tr>
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<td>Resources</td>
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  Recommended:  
| 16-Nov  | Mixed Methods Design                       | TBD                                                                       |
| 23-Nov  | In-Class Peer Critique                     | Revised Proposal to Peer and Peer Critique                                |
| 7-Dec   | Review and Summary                         | Quad chart and elevator speech  
  Final project write-up                                                                 |
| 14-Dec  | Finals Week                                |                                                                           |