MPH 6991/6992
Professional Paper I & 2
Laupus Library

• Please watch this 3 minute video
  http://libguides.ecu.edu/c.php?g=17435&p=97381

• http://libguides.ecu.edu/c.php?g=17380&p=97092
Syllabus/Guidelines/Expectations

Guidelines are on MPH website

• http://www.ecu.edu/cs-dhs/dph/Professional-Paper.cfm
Key Points

• Pre-requisites for 6991
  – Research Methods - MPH 6020
  – Epidemiology - MPH 6011
  – Link internship - MPH 6903 to paper
• Pre-requisite for 6992 is 6991
• Two Semester Sequence (~Fall AND Spring)
• Three (3) credits: 2 for 6991, 1 for 6992
• Primary Instructor for 6991 is same for 6992
MPH 6991

- MPH 6991 - Goal - Develop a PROPOSAL
- MPH 6992 - Implement PROPOSAL as PAPER
  Several sections to MPH 6991 – see Bb
- Meet your Primary Instructor for format of his/her 6991 section. Do you know who that is?
- Do you have a paper topic already?
- See Guidelines MPH 6991 specifics
- Example on MPH website

- *Develop a timeline for 6991 early*
MPH 6992

- Follow your timeline presented in 6991
- See Primary Instructor early in semester
- Present results at end of semester
Student Services Coordinator sends out email to all Students requesting completion of the concept paper and approval for registration in 6991 from their advisors by a certain date before registration.

Students complete concept paper and submit to their: (1) Academic Advisor; (2) first choice for Primary Professor; (3) second choice for Primary Professor, to keep all in the loop.

Student Services Coordinator makes a spreadsheet listing each Student from which she has received a concept paper, their topic as listed on the concept paper, first and second choice for primary professor, and sends this to all MPH 6991 Instructors.

Student Services Coordinator and Professional Paper Instructors will look over the spreadsheet, and try to balance the load between Professional Paper Instructors, considering the need for matching Student topic area and Primary Professor expertise.
Steps

• Begin with the end in mind!
• Objectives/Research question(s)/specific aims
• Introduction/Why is this important?
• Lit review/Background – Explain why? Other studies/pilot studies
• Flow process or Conceptual diagram
• Methods
• Outcomes/Results
• Discussion
• Conclusions
**Goal and Objectives**

- What are you planning to investigate and accomplish?
- Goal states the long-term purpose of the project
- Need to identify measurable, specific objectives to reach this goal
- One overall goal and no more than 3 specific objectives
Ways to select a topic

- Select from faculty member list on website
- Use your own question/curiosity
- Overlap with internship?
Background/Significance

- Literature review
  - rationale for project
  - state of the field – where does yours fit in?
- Pilot studies you have done already?
- Be selective and concise with supporting literature
- Identify contradictions, if relevant
- Why is your project innovative? Is this a pilot study?
- Contributions to the field – what’s new?
- Build Enthusiasm – make compelling case
- Cite references
- WHY BOTHER to do this work?
Conceptual Model

• Every paper must have a theory, model, conceptual framework, or logic model for describing the problem, process and/or grounding the inquiry

• Section should include diagram/figure with accompanying text

• You can use an existing conceptual model or, preferably, develop your own
Logic Model

- Systematic and visual way to present the relationships among:
  - Resources on hand to operate the program/project
  - Activities
  - Changes or results you hope to achieve

- Connects planned work to intended results
Quantitative Methods

Research methods dealing with numbers and anything that is measurable.

• Counting is a common form of quantitative methods.

• The result of the research is a number, or a series of numbers.

• These are often presented in tables, graphs or other forms of statistics.
Qualitative Methods

Research methods dealing with data in the form of words or pictures.

• Often used when not much is known about a topic.

• The results of the research are quotes and themes from participants.

• These quotes can be presented in the results section of text or in tables.
Methods

• Detailed explanation of WHAT and HOW the project

• The level of detail dedicated to methods up front will make data collection, management and analysis much easier!

• Will be driven by nature of project
  – Program evaluation
  – Hypothesis-driven
  – Qualitative
Target Population

• The population to which your results will be generalizable
• Clearly defined in terms of time, place, and/or demographics
  – U.S. population
  – Pregnant Latina women in North Carolina in 2008
  – Men ages ≥ 50 years in Pitt County in 2008
  – Hmong refugees living in North Carolina in 2008
Study Population

• Sample of target population from which you will collect data.

• Inclusion/Exclusion Criteria
  − Hispanic women age 18-44 years receiving prenatal care at 10 community clinics in Pitt County.
  − Men and women aged ≥ 18 years with confirmed HIV infection after September 1, 2008 who reside in Pitt County.
Study Population

• To increase external validity, use sampling strategies to generate representative sample
  – Simple random sampling
  – Stratified sampling
  – Cluster sampling
  – Systematic sampling
  – Convenience sampling

• How many participants do I need?
  – Sample size calculation, if necessary
Measurement

• The process of measurement is central to quantitative research because it provides the fundamental connection between empirical observation and mathematical expression of quantitative relationships.

• The process of measurement is also critical to qualitative research because it is imperative to accurately capture the real-world phenomenon you are studying.
Variables

• What variables will measure the phenomenon of interest?

• Which variables can realistically be measured to achieve objectives?

• Definitions and coding? Make a plan.

• Must clearly define variables being collected
  – Dependent (outcome)
  – Independent (predictor) variables
QUANTITATIVE Data Collection

• How will the data be collected?
  – Quantitative: Surveys, secondary data
  – Qualitative: Interviews, focus groups, observations

• Must provide a plan for careful and systematic collection of data which will determine the quality of data obtained

• Must provide detail on data sources, collection of data and data analysis

• Must provide justification for choice of data sources and data collection technique
Data Collection

• Present instruments (questionnaire, interview guide) and techniques for measurement of covariates and outcome (or phenomenon of interest)

• Present design for data collection
  – Describe if questionnaire is mailed, in-person
  – Self-administered or interview?
  – Describe methods of follow-up
  – Closed vs open-ended questions
  – Where will the interviews occur?
Data Management

• Not listed in guidelines, however, should be included

• Description of how you plan to record data

• Describe plans for computerized data entry (including software to be used) and storage for data analyses

• Describe procedures to ensure confidentiality of data
Data Analysis

• Explain data analyses to be used
  – Univariate to describe the population
  – Bivariate to assess relationships
  – Multivariate (if necessary) to assess adjusted relationships
  – List and explain statistical methods and techniques
  – List software packages
  – This section is also needed for qualitative analysis

• Expected Outcomes
  Provide mock tables of how data will be presented
Turn the conceptual model into a statistical model

Determinants

Individual
- Cost
- Convenience

Social
- Cooking skills, knowledge

Environmental
- Availability of F/V in low-inc and rural areas

Intermediate Outcomes
- Fruit and Veg consumption

Health Outcomes
- BMI percentile

WIC POLICY
Timeline

• Indicates timeframe for performing each procedure presented in proposal
• Used to keep you on track during project
• Needs to be realistic
• For example…
Timeline for Professional Paper Proposal

<table>
<thead>
<tr>
<th>AUG</th>
<th>SEPT</th>
<th>OCT</th>
<th>NOV</th>
<th>DEC</th>
<th>JAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop timeline</td>
<td>Initial Proposal</td>
<td>Prof review</td>
<td>Lit Review</td>
<td>Operationalize</td>
<td>Methods section</td>
</tr>
<tr>
<td>Example of 6991 Schedule</td>
<td>Due date</td>
<td>Feedback and call date/time</td>
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</tr>
<tr>
<td>Research question (goals/objectives) and intro + background outline</td>
<td>Tues, Sept 9(^{th}), COB</td>
<td>Fri, Sept 12(^{th}), noon</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All of the above + Concept model + methods outline</td>
<td>Tues, Sept 23(^{rd}), COB</td>
<td>Fri, Sept 26(^{th}), noon</td>
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</tr>
<tr>
<td>All of the above, plus detailed data sources and analysis section</td>
<td>Tues, Oct 14(^{th}), COB</td>
<td>Fri, Oct 17(^{th}), noon</td>
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</tr>
<tr>
<td>Draft Intro, background, Goals/ Objectives, Concept Model + refined methods outline</td>
<td>Tues, Oct 28(^{th}), COB</td>
<td>Fri, Oct 31(^{st}), noon</td>
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<tr>
<td>Paper proposal draft</td>
<td>Tues, Nov 11(^{th}), COB</td>
<td>Fri, Nov 14(^{th}), noon</td>
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<tr>
<td>Paper proposal draft</td>
<td>Tues, Dec 2(^{nd}), COB</td>
<td>Feedback via email, no call, on Fri, Dec 5(^{th})</td>
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<tr>
<td>Paper proposal due</td>
<td>Mon, Dec 8(^{th}), COB</td>
<td>Grades soon thereafter.</td>
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<td>Example of 6992 Schedule</td>
<td>Due date</td>
<td>Feedback and call date/time</td>
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<tr>
<td>Results section – shell tables and analysis plan review/revise</td>
<td>Tues, Sept 9th, COB</td>
<td>Fri, Sept 12th, 1pm</td>
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<tr>
<td>All of the above + preliminary analyses</td>
<td>Tues, Sept 23rd, COB</td>
<td>Fri, Sept 26th, 1pm</td>
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</tr>
<tr>
<td>All of the above + preliminary analyses + conclusions outline</td>
<td>Tues, Oct 14th, COB</td>
<td>Fri, Oct 17th, 1pm</td>
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<tr>
<td>Finalize results section, conclusions/ Public Health Implications section</td>
<td>Tues, Oct 28th, COB</td>
<td>Fri, Oct 31st, 1pm</td>
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<tr>
<td>Paper draft, presentation draft</td>
<td>Tues, Nov 11th, COB</td>
<td>Fri, Nov 14th, 1pm</td>
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<tr>
<td>Paper draft</td>
<td>Tues, Dec 2nd, COB</td>
<td>Feedback via email, no call, on Fri, Dec 5th</td>
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<tr>
<td>Paper due</td>
<td>Mon, Dec 8th, COB</td>
<td>Presentations and grades due soon thereafter.</td>
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Strengths and Limitations

• State and briefly explain how limitations may affect study results
  – External validity (representativeness)
  – Internal validity (comparability)
Human Subjects

• All MPH projects must go thru Institutional Review Board (IRB) review.
• ANY study. You cannot decide your project is exempt.
• Need approval number before starting MPH 6992.
• 2. Create Profile in Epirate.
• 3. Create and Complete new request
• See [www.ecu.edu/irb](http://www.ecu.edu/irb) (see purple button)
• 4. Obtain UMC-IRB approval number for proposal
IRB Steps/Tips

• Complete IRB modules
• Determine type of review required
• Obtain a support letter from the proposed site (or complete Institutional Approval Requirements for BSOM/PCMH)
• Complete the electronic internal processing form on ePirate
• Prepare research-related tools and consents
• Consult the office for pre-review if needed
• Submit the study and wait for IRB approval before beginning the study
• Submit any necessary reports during the study
• CONTINUE or CLOSE the study appropriately
Q: Can I use my MPH 6020 paper (Research Methods) for my MPH 6991 proposal?

A. Yes. The MPH 6020 paper can serve as a foundation for your MPH 6991 proposal. However, your primary professor should approve the use of the MPH 6020 paper as a foundation for the MPH 6991 proposal. The paper should change substantially over the course of the semester, as your professional paper primary professor gives you feedback and you make changes accordingly.
Advisor expectations

• Amount of involvement
• Aiding in analysis
• Help if wanting to publish
• Expectations of author order
There is no letter grade assigned to this proposal. The Q and R system is used: “Q and R-In Progress – A special grade reserved for capstone courses such as thesis, dissertation, professional paper, internships, practica, and similar courses. The "Q" grade is removed when the course is successfully completed and replaced with a grade of "R". The grades in these courses are not included in meeting the cumulative “B” average required for graduation.” Grading is accessed on the same scale as if the paper were to receive a letter grade. Thus, the student is advised to perform at the level expected of a graduate student.
Describe a public health problem in terms of magnitude, person, time and place.

- All students met competency.
- All students met competency, except:

Comprehend basic ethical and legal principles.

- All students met competency.
- All students met competency, except:

Describe the role of social and community factors in both the onset and solution of public health problems.

- All students met competency.
- All students met competency, except:

Identify basic theories, concepts and models from a range of social and behavioral disciplines that are used in public health research and practice.

- All students met competency.
- All students met competency, except:

Develop cogent and persuasive written materials regarding public health topics.

- All students met competency.
- All students met competency, except:

Instructor Signature: _______________________________      Date: __________
Develop oral presentations using recognized criteria for effective information dissemination.

- All students met competency.
- All students met competency, except:

Instructor Signature: ________________________________ Date: __________