The University Of Toledo

NEW COURSE PROPOSAL

* denotes required fields

1. College*: Medicine
--Select a College--

Public Health and Preventive Medicine
--Select a Department--

2. Contact Person*: Shery Milz

3. Alpha/Numeric Code (Subject area - number)*:
If this is a renumbering, please request an electronic copy of the old course approval through the Registrar's Office at x4865, and attach it to #15 in this form. Remember to delete the old course ID in #13.

4. Proposed title*:

5. Planned enrollment per section: 5-10 per term: 5-10

6. Is the course offered at more than one level? ☐ Yes ☑ No

Is the course offered at more than one level? ☐ Yes ☑ No
If yes to either question, please list additional Alpha/Numeric codes, and submit a separate New Course form or Course Modification form for the course(s) referenced below.

a. 

b. 

c. 

Approval of other academic unit (signature)

Name and title

If course is to be offered at more than one level, attach an explanation of the different requirements that students must meet for each level. If the requirements are the same for each level, justification must be provided.

7. Credit hours*: Fixed: ☑

Variable: to

8. Delivery Mode: Distance Learning

Primary*: Secondary Tertiary

a. Activity Type† ☐ Select Type+ Computer Assisted Instruction

b. Minimum Credit Hours

c. Weekly Contact Hours

d. Maximum Credit Hours

9. Terms offered: ☑ Fall ☐ Spring ☐ Summer
New Course Proposal

Years offered:  ☑ Every Year  ☐ Alternate Years

Are students permitted to register for more than one section during a term?  ☐ No  ☑ Yes

May the courses be repeated for credit?  ☑ No  ☐ Yes

Maximum Hours

Grading System*:

Undergraduate

☐ Normal Grading (A-F, PS/NC, PR, I)
☐ Passing Grade/No Credit (A-C, NC)
☐ Credit/No Credit
☐ Grade Only (A-F, PR, I)
☐ Audit only
☐ No Grade

Graduate

☐ Normal Grading (A-F, PS/NC, PR, I)
☐ Grade Only (A-F)
☐ Satisfactory/Unsatisfactory (G only)
☐ Audit only
☐ No Grade

12. Prerequisites (must be taken before):
   a. -  b. -  c. PDP (Permission From Instructor)  d. -

13. Co-requisites (must be taken together):
   a. -  b. -  c. -

14. Catalog description* (30 words Maximum)

This course will present the biostatistical methods of research and their application to clinical research. Course enrollment requires a minor or equivalent degree.

15. Attach an electronic copy of a complete outline of the major topics covered.

   Syllabus:  *  Sylabus

   Additional Attachment 1:  Schedule

   Additional Attachment 2:

16. Where does this course fit in the University/College/Department curriculum? (Be specific by course level, if applicable). Indicate prospective demand.

   This course is designed for medical residents as part of their graduate medical education.

17. If the proposed course is similar to another course in the College or University, please describe the difference and provide a rationale for the duplication. (If this course duplicates material covered in another course within your department or college or in another college, attach a letter of endorsement from that area's dean and department chairperson indicating their support. Clarify the manner in which this course will differ).

http://curriculumtracking.utoledo.edu/NewCourse.asp  7/7/2010
18. If the course is intended to meet a University Undergraduate Core requirement, complete the following and submit a course syllabus using the template:

Please explain how this course fulfills the general education guidelines. (Guidelines are available in Faculty Senate Website)

Course Approval:

Department Curriculum Authority: ____________________________ 
Date: ____________________________ 

Department Chairperson: ____________________________ 
Date: ____________________________ 

College Curriculum Authority: ____________________________ 
Date: ____________________________ 

College Dean: ____________________________ 
Date: ____________________________ 

After college approval, submit the original signed form to the Faculty Senate (UH 3320) for undergraduate-level courses; for graduate-level courses submit the original signed form to the Graduate School (UH3320). For undergraduate/graduate dual-level courses, submit the proposals to each office.

Faculty Senate Undergrad. Curriculum Comm.: ____________________________ 
Date: ____________________________ 

Faculty Senate Core Curriculum Comm.: ____________________________ 
Date: ____________________________ 

Graduate Council: ____________________________ 
Date: ____________________________ 

Office of the Provost: ____________________________ 
Date: ____________________________ 

Registrar's Office: ____________________________ 
Date: ____________________________ 

You will see a confirmation page after you press the “Submit” button. If you do not see the confirmation page, please call x 4320 or send an email to ProvostWebMaster.utoledo.edu. Thanks.
The University of Toledo

College of Medicine

Department of Public Health and Preventive Medicine

PUBH 900 Foundations of Evidence Based Medicine 1: Basic Biostatistics

Semester: Fall, Spring

Credit Hours: 3

Contact Hours: N/A: Distance Learning Format

Prerequisite: MD or equivalent degree

Instructor: Christopher E. Bork, Ph.D.

(419) 383-6301

Christopher.Bork@UToledo.edu

COURSE DESCRIPTION

This course will present the biostatistical methods of research and their application to clinical research. More specifically, it will present a useful introduction to the basic nomenclature, logic and methods statistical analysis and basic research designs. It will provide a foundation for the learner to critically read published reports of clinical research and identify the strengths and weaknesses.

OVERVIEW

In order to practice evidence based medicine one must be able to determine how useful the evidence is. One of the hallmarks of an excellent practitioner is her or his commitment to continually learn and apply appropriate evidence to improve patient care. This course will assist you to further develop your skills to decide if a new course of treatment described in an article appears appropriate.

You will also improve your knowledge of research design and statistics. By using a computerized statistical package you will learn how to handle data, test hypotheses and draw conclusions based upon the analyses.

Because of inherent limitations, applying most research to patient care usually requires interpretation and judgment. Academic physicians and basic scientists participate in
research because of the excitement of discovering answers to questions, learning more about what they are interested in, and improve patient care and outcomes. Please give this course your best effort and I think you will be amply surprised at how much insight you will gain.

COURSE OBJECTIVES

The over-all objectives of this course are for the student to:

1. Define the common terms associated with research and statistics presented in this course.
2. Identify common research designs and their strengths and limitations.
3. Demonstrate an understanding of the concepts of validity and reliability for clinical procedures and measurement tools.
4. Apply and interpret common statistical tests.
5. Demonstrate the ability to analyze data to test hypotheses using the Statistical Package for the Social Sciences (SPSS)
6. Identify and describe limitations of research design and statistical analyses.

COURSE GRADING

Assignment 100%

GRADE ASSIGNMENT

A  ≥ 90%
B  = 80-89%
C  = 70-79%
D  = 60-69%
F  = <60%

PERFORMANCE

By the fourth week of class you will have received feedback on your performance in the quizzes. If you are earning less than a B grade, you should definitely make an appointment with the course instructor to discuss your performance.

INCOMPLETES

Incomplete grades will not be granted except for exceptional reasons and only then if the reasons are presented in writing along with a firm date for completion of all course work. Failure to meet the conditions will result in a grade of zero for the work in question.
SPECIAL NEEDS

Students with special needs are advised to follow the University of Toledo procedures to obtain reasonable accommodations.
<table>
<thead>
<tr>
<th>Module</th>
<th>Timeframe</th>
<th>Assignment</th>
<th>Assignment due date</th>
<th>Points</th>
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<tr>
<td>Read Me First</td>
<td>Week 1</td>
<td>Obtain course resources</td>
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<td>Truth, ways of knowing, variables, hypotheses, levels of measurement</td>
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<td>Sources of error</td>
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<td>Reliability</td>
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<td>Basic designs used in research</td>
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<td>Introduction to basic statistics</td>
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<td>Describing data</td>
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<td>Populations, samples and probability</td>
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<td>The normal distribution</td>
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<td>Comparing more than two means: simple ANOVA</td>
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<td>BREAK</td>
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<td>Assignment 14</td>
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<td>Comparing means for two or more independent variables: factorial ANOVA</td>
<td>Week 9</td>
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<td>Mixed models using ANOVA</td>
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<td>Prediction- Bivariate correlation</td>
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<td>Putting it all together</td>
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**TOTAL** 300