INTERCOLLEGiate

Comparative and Experimental Medicine (CEM)

All changes effective Fall 2023

I. COURSE CHANGES

ADD

CEM 534 Applied Research and Biostatistics (3) Students will learn how to 1) formulate, refine, and state research questions using the FINER and PICOT frameworks, 2) state the hypothesis statement based on the research question, 3) choose the correct epidemiological research design to answer the research question, 4) define a population of interest using inclusion and exclusion criteria, 5) select independent, dependent, demographic, clinical, and confounding variables that have precision and accuracy in measurement, 6) understand the relationships between statistical power, effect size, and sample size, 7) perform sample size calculations, 8) structure and maintain databases in RedCap, 9) choose and perform the correct statistical analyses to answer the research question, and 10) formally present statistical analyses for purposes of publication, presentation, and dissemination. This novel course will focus on teaching students the linear journey of the research method from question to publication.

Rationale: Expands curricular offerings in the area. Impact on other units: None expected. Financial impact: None expected.

II. PROGRAM CHANGES

REVISE REQUIREMENTS, ONE HEALTH MINOR

In the 2023-24 Graduate Catalog, revise the One Health Minor as shown below.

1) Under the Required Courses heading, revise first sentence as shown below.

Required Courses
The minor consists of 10 graduate credit hours (three from each of categories 1 and 2 and four from category 4) in three areas of focus as detailed below. Courses chosen within categories must be diversified among colleges (i.e., the selected courses should not all be from within the same college).

Formerly: The minor consists of 10 graduate credit hours (four courses) in three areas of focus as detailed below.

2) Under the Category 1 heading, for the courses listed, revise to add a sixth course (SOWK 503) as shown below.

SOWK 503 Introduction to Clinical Social Work (3 credit hours)

3) Under the Category 2 heading, for the courses listed, revise to add 3 additional courses to the 5 listed.

   PUBH 555 Health & Society (3 credit hours)
   SOWK 510 Graduate policy course (3 credit hours)
   SOWK 511 Intro to Macro Social Work Practice (3 credit hours)

4) Under the Category 3: One Health heading, revise the second sentence, and add two additional courses to the CEM course that is listed, as shown below.

   Select from the following courses.
   PUBH 510 Environmental Health (3 credit hours)
   SOWK 540 Special Topics classes Study abroad Classes that address One Health issues, as approved by the CEM Director of Graduate Studies (3 credit hours)

Formerly: Select both courses.
Rationale: In the United States, the 2018 Health Security National Action Plan (NAP) calls for enhanced communication, resources, and infrastructure to support real-time monitoring and rapid detection of emerging infectious diseases; advancements in rapid genomic characterization of pathogens; identification of molecular, ecological and environmental factors that influence transmission and pathogenesis (including antimicrobial resistance); and development of disease intervention strategies for emerging and re-emerging pathogens. The NAP also calls for an expanded One Health workforce in the United States. In the next five years and beyond, state and federal agencies will rely increasingly on land grant institutions to provide support for pathogen surveillance and research that leads to practical solutions for responding to and managing diseases in wildlife, livestock, and human populations. This has led to the formation of the One Health Initiative at the University of Tennessee, Knoxville (UTK). A graduate minor in One Health allows for the preparation of UTK students for the One Health workforce by providing additional curriculum opportunities in communication, leadership, policy, and global issues beyond the scope of other course work.

Impact on other units: Increased enrollment in the required courses may lead to additional teaching burden on faculty. However, due to the number of options in each of the first two categories of classes, the impact of additional students on any single faculty member should be low.

Financial impact: None. All required courses already exist and will continue to be taught as part of the normal course load of existing faculty.