From: Graduate.Council.Web.Site@www.uky.edu
Sent: Wednesday, December 03, 2008 10:18 AM
To: Nikou, Roshan
Cc: Price, Cleo
Subject: Investigator Report

AnyForm User: www.uky.edu
AnyForm Document: http://www.research.uky.edu/gs/GCInvestigatorReport.html
AnyForm Server: www.uky.edu (/www/htdocs/AnyFormTurbo/AnyForm.php)
Client Address: 76.177.13.44

College/Department/Unit: = BST 639
Category:_   = New
Date_for_Council_Review: = 12/4/2008
Recommendation_is:_   = Approve
Investigator: = Kert Viele
E-mail_Address = viele@uky.edu
1__Modifications: =
2__Considerations: =
3__Contacts: = Marta Mendiondo general discussion
4__Additional_Information: = The prereq on the course includes \"...and basic computer literacy\". It is unclear to me what this is operationally (e.g. if the registrar can check it, for example). If this is a first year course, how would a deficiency in \"basic computer literacy\" be handled?

Basics of the course look straightforward and acceptable.

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AnyForm/PHP3 0.1

AnyFormRandomSeqNo: 10894287

1

APPLICATION FOR NEW COURSE

1. Submitted by the College of   Public Health   Date: March 10, 2008

    Department/Division proposing course: Biostatistics

2. Proposed designation and Bulletin description of this course:

    a. Prefix and Number   BST 639

    b. Title*   Computing Tools for the Biomedical Sciences
        *If title is longer than 24 characters, write a sensible title (24 characters or less) for use on transcripts:
        Computing Tools

    c. Courses must be described by <u>at least one</u> of the categories below. Include the number of <u>actual contact hours per week</u> for each category, as applicable.

        (__) CLINICAL   (__) COLLOQUIUM   (__) DISCUSSION   (_2_) LABORATORY   (_2_) LECTURE

        (__) INDEPEND. STUDY   (__) PRACTICUM   (__) RECITATION   (__) RESEARCH   (__) RESIDENCY

        (__) SEMINAR   (__) STUDIO   (__) OTHER – Please explain:

    d. Please choose a grading system: ☒ Letter (A, B, C, etc.)   ☐ Pass/Fail

    e. Number of credit hours: 3

    f. Is this course repeatable?   YES ☐   NO ☒   If YES, maximum number of credit hours:

    g. Course description:

        This course is an introduction to statistical and epidemiologic software technologies commonly used for the collection, management, and analysis of data.

    h. Prerequisite(s), if any:

        STA 580 or consent of instructor and basic computer literacy

    i. Will this course be offered through Distance Learning?   YES ☐   NO ☒

        If YES, please circle one of the methods below that reflects how the majority of the course content will be delivered:

        | Internet/Web-based | Interactive video | Extended campus | Kentucky Educational Television (KET/teleweb) | Other |

        Please describe "Other":

3. Teaching method: ☒ N/A   or   ☐ Community-Based Experience   ☐ Service Learning Component   ☐ Both

4. To be cross-listed as: CPH 639
        Prefix and Number   Signature of chair of cross-listing department

5. Requested effective date (term/year):   Fall   /   2009

APPLICATION FOR NEW COURSE

6. Course to be offered (please check all that apply): ☒ Fall ☐ Spring ☐ Summer

7. Will the course be offered every year? ☒ YES ☐ NO

   If NO, please explain: _____

8. Why is this course needed?

   This course is a requirement in the proposed PhD in Epidemiology/Biostatistics.

9. a. By whom will the course be taught? Marta Mendiondo or Chong Wang

   b. Are facilities for teaching the course now available? ☒ YES ☐ NO

      If NO, what plans have been made for providing them?

10. What yearly enrollment may be reasonably anticipated?

    5-10 students

11. a. Will this course serve students primarily within the department? ☒ Yes ☐ No

    b. Will it be of interest to a significant number of students outside the department? ☒ YES ☐ NO
       If YES, please explain.
       The course will be a requirement for the proposed Ph.D. in Epidemiology/Biostatistics. Some of the students in that
       program may consider Epidemiology their home department. It may be of interest to graduate students from other

       colleges and to the MPH and Dr.PH students in the College of Public Health.

12. Will the course serve as a University Studies Program course[†]? ☐ YES ☒ NO
    If YES, under what Area? _____
    [†]AS OF SPRING 2007, THERE IS A MORATORIUM ON APPROVAL OF NEW COURSES FOR USP.

13. Check the category most applicable to this course:

    ☒ traditional – offered in corresponding departments at universities elsewhere

    ☐ relatively new – now being widely established

    ☐ not yet to be found in many (or any) other universities

14. Is this course applicable to the requirements for at least one degree or certificate at UK? ☒ Yes ☐ No

15. Is this course part of a proposed new program? ☒ YES ☐ NO

    If YES, please name: PhD in Epidemiology and Biostatistics

16. Will adding this course change the degree requirements for ANY program on campus? ☐ YES ☒ NO
    If YES[‡], list below the programs that will require this course:

APPLICATION FOR NEW COURSE

‡In order to change the program(s), a program change form(s) must also be submitted.

17. ☒ The major teaching objectives of the proposed course, syllabus and/or reference list to be used are attached.

18. ☐ Check box if course is 400G or 500. If the course is 400G- or 500-level, *you must include a syllabus showing differentiation* for undergraduate and graduate students by (i) requiring additional assignments by the graduate students; and/or (ii) the establishment of different grading criteria in the course for graduate students. (See *SR 3.1.4*)

19. Within the department, who should be contacted for further information about the proposed new course?

Name: Marta S. Mendiondo   Phone: 257-1412ext.274   Email: marta@email.uky.edu

20. Signatures to report approvals:

__4-1-08__ DATE of Approval by Department Faculty	Richard Kryscio , _Richard Kryscio_ printed name Reported by Department Chair signature
__6-26-08__ DATE of Approval by College Faculty	Linda Alexander , _Linda Alexander_ printed name Reported by College Dean signature
_____ * DATE of Approval by Undergraduate Council	_____ printed name Reported by Undergraduate Council Chair signature
_____ * DATE of Approval by Graduate Council	BRIAN A JACKSON _BA_ printed name Reported by Graduate Council Chair signature
__8/19/08__ * DATE of Approval by Health Care Colleges Council (HCCC)	Heidi Anderson , _____ printed name Reported by Health Care Colleges Council Chair signature
_____ * DATE of Approval by Senate Council	Reported by Office of the Senate Council
_____ * DATE of Approval by University Senate	Reported by Office of the Senate Council

*If applicable, as provided by the *University Senate Rules*. *(http://www.uky.edu/USC/New/RulesandRegulationsMain.htm)*

Rev 8/07

BST/CPH 639: Computing Tools for the Biomedical Sciences

Course Description: Introduction to statistical and epidemiologic software technologies commonly used for the collection, management, and analysis of data. This is a core course for the PhD in Epidemiology and Biostatistics. It is designed to prepare first year students for further coursework and dissertation research. This course will also be offered to MPH and DrPH students in the College of Public Health (CPH) and will be open to graduate students in other colleges. The primary software packages used are SAS, R/S-Plus, STATA, SPSS and EpiInfo. Topics to be covered in each package include the structure of each language, basics of writing, opening and running an application, data manipulation (such as transforming variables and label/formatting variables), numerical data summaries, graphical data summaries, exploratory data analysis, elementary data mining, multivariate analysis, and introduction to various regression models including linear, logistic, Poisson, and Cox regression.

Course Structure: 3 credit hours (2 hours lecture, 2 hours of laboratory)

Prerequisites: Computer literacy and STA 580 or equivalent, or consent of instructor

Initial offering: Fall 2009

Instructors: The course leader can be any faculty member in the Departments of Biostatistics or Epidemiology. This course may be taught by a team of two or more faculty from the Biostatistics and Epidemiology departments in the CPH.

Philosophical Statement: Students with doctoral training in epidemiology and biostatistics who pursue careers in academia, business, industry, or government must be able to properly manage and analyze data. This course surveys commonly used software packages for the statistical analysis of data in the life sciences.

Objectives:
1. Students will learn fundamentals including syntax, missing values, format, labeling
2. Students will learn introductory data management including creating and modifying variables, sorting, transformations, merging, linking, subsetting
3. Students will be able to produce basic statistics such as data summaries, correlation, chi squared, t tests, estimating epidemiologic risk, ANOVA, linear, logistic, Poisson, and Cox and accelerated failure time regression models
4. Students will learn how to implement nonparametric rank-based and permutation procedures, and elementary resampling methods
5. Students will learn how to produce publication quality graphics and tables
6. Students will learn elementary programming in each software package
7. Students will learn elementary programming simulation

References:
1. Lecture notes provided by the instructors.
2. SAS Publishing (2001). *Step-by-Step Programming with Base SAS Software.*
3. Der, Geoff and Brian Everitt (2006). *Statistical Analysis of Medical Data Using SAS.*

4. Juul (2006). *An Introduction to STATA for Health Researchers.*
5. Rabe-Hesketh, S, Everitt, BS (2007). *Handbook of Statistical Analysis Using STATA.*
6. Long (2005). *Regression Models for Categorical Dependent Variables Using Stata.*
7. Krause and Olsen (2005). *The Basics of S and S Plus.*
8. Venables and Ripley (2001). *Modern Applied Statistics with S Plus.*
9. Everitt and Rabe-Hesketh (2001). *Analyzing Medical Data using S Plus.*
10. Abrahamson and Gahlinger (2001). Computer Programs for Epidemiologists: Pepi Version 4.0.

Course Outline:
Sections I-IV will be covered using the software packages SAS, R/S-Plus, STATA, SPSS, and Epi-Info.

I: Fundamentals
Language structure
Writing and running files
Formatting data, labeling data, handling missing data
Simple numerical and graphical summary statistics
Data manipulation and transformations

II: Data Management
Reading data from external files
Outputting results to external files
Creating new variables
Defining continuous and categorical variables

III: Data Analysis
Numerical and graphical summaries
T test, t-interval
ANOVA
Elementary categorical data analysis
Regression – linear, logistic, Poisson, Cox, AFT
Nonparametric procedures
Bootstrapping
Simulation

IV: Programming
Writing independent functions
For loops, do loops, if statements

V: Epi-Info, PEPI
Estimating and comparing epidemiologic risk, odds, rates, and survival
Data manipulation
Categorical Analysis
Odds ratios, risk ratios, risk differences, ROC Curves

Logistic regression and survival analysis
Analysis of complex survey data

VI: Introduction to specialized software packages
N-Query Advisor
NCSS
DBSM Copy
STAT Transfer

Assessment: Grades will be based on problem sets and lab assignments (40%), in-class exams (40%), and a final project (20%).

Grading Scale:

Grade	%
A	90-100
B	80-89
C	70-79
E	60-69

From:	Brothers, Sheila C
Sent:	Monday, September 22, 2008 8:42 AM
To:	LaRoche, Adrea S.
Subject:	FW: HCCC Transmittal - Program Change: MS in Athletic Training
Attachments:	PhD Epi Bio Final Signatures.pdf; FW: important--EPI 714; FW: regarding the New Program Proposal for the PhD in Epidemiology and Biostatistics

Follow Up Flag:	Follow up
Flag Status:	Flagged

Categories:	Curricular Items

Don't let the subject line fool you – this is for a PhD in Epidemiology. ☺
Sheila

Office of the Senate Council
Phone: (859) 257-5872

From: Lindsay, Jim D.
Sent: Friday, September 19, 2008 2:20 PM
To: Nikou, Roshan; Jackson, Brian A
Cc: Brothers, Sheila C; Anderson, Heidi Milia; Flanagan, Rebecca; Alexander, Linda A; Kryscio, Richard
Subject: RE: HCCC Transmittal - Program Change: MS in Athletic Training

September 19th, 2008

T.R A N S M I T T A L
TO: Brian Jackson, Roshan Nikou
         Graduate Council
FROM: Jim Lindsay
         Health Care Colleges Council

At its August 19th 2008 meeting, the Health Care Colleges Council approved the following proposal and is now forwarding it to the Graduate Council to approve:

College of Public Health
New Program: Ph.D. in Epidemiology

Attached are the materials to implement the requested action.

cc: Linda Alexander
         Becki Flanagan
         Richard Kryscio
         Shelia Brothers
         Heidi Anderson

Jim Lindsay
Health Care Colleges Council Coordinator
Associate Provost for Faculty Affairs Office
University of Kentucky, 205 Frazee Hall
Lexington, KY 40506-0031 Ph. (859) 323.6638
www.uky.edu/Provost/AcademicCouncil/council.php

APPLICATION FOR NEW COURSE

1. Submitted by the College of __Public Health__   Date: __March 10, 2008__

Department/Division proposing course: __Biostatistics__

2. Proposed designation and Bulletin description of this course:

a. Prefix and Number   __BST 639__

b. Title*   __Computing Tools for the Biomedical Sciences__

    *If title is longer than 24 characters, write a sensible title (24 characters or less) for use on transcripts:

    __Computing Tools__

c. Courses must be described by <u>at least one</u> of the categories below. Include the number of <u>actual contact hours per week</u> for each category, as applicable.

(___) CLINICAL   (___) COLLOQUIUM   (___) DISCUSSION   (_2_) LABORATORY   (_2_) LECTURE

(___) INDEPEND. STUDY   (___) PRACTICUM   (___) RECITATION   (___) RESEARCH   (___) RESIDENCY

(___) SEMINAR   (___) STUDIO   (___) OTHER – Please explain: _____

d. Please choose a grading system: ☒ Letter (A, B, C, etc.)   ☐ Pass/Fail

e. Number of credit hours: __3__

f. Is this course repeatable?   YES ☐   NO ☒   If YES, maximum number of credit hours: _____

g. Course description:

    This course is an introduction to statistical and epidemiologic software technologies commonly used for the collection,

    management, and analysis of data.

h. Prerequisite(s), if any:

    STA 580 or consent of instructor and basic computer literacy

i. Will this course be offered through Distance Learning?   YES ☐   NO ☒

If YES, please circle one of the methods below that reflects how the majority of the course content will be delivered:

Internet/Web-based	Interactive video	Extended campus	Kentucky Educational Television (KET/teleweb)	Other

Please describe "Other": _____

3. Teaching method: ☒ N/A   or   ☐ Community-Based Experience   ☐ Service Learning Component   ☐ Both

4. To be cross-listed as: __CPH 639__

               Prefix and Number   Signature of chair of cross-listing department

5. Requested effective date (term/year):   __Fall__   /   __2009__

APPLICATION FOR NEW COURSE

6. Course to be offered (please check all that apply): ☒ Fall   ☐ Spring   ☐ Summer

7. Will the course be offered every year?   ☒ YES   ☐ NO

If NO, please explain: _____

8. Why is this course needed?

This course is a requirement in the proposed PhD in Epidemiology/Biostatistics. _____

9. **a.** By whom will the course be taught?   Marta Mendiondo or Chong Wang _____

    b. Are facilities for teaching the course now available?   ☒ YES   ☐ NO

        If NO, what plans have been made for providing them?

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        If YES, please explain.

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APPLICATION FOR NEW COURSE

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DATE of Approval by Department Faculty

Richard Kryscio , _Richard Kryscio_
printed name   Reported by Department Chair   signature

_6-26-08_
DATE of Approval by College Faculty

Linda Alexander , _Linda Alexander_
printed name   Reported by College Dean   signature

_____
* DATE of Approval by Undergraduate Council

_____   _____   _____
printed name   Reported by Undergraduate Council Chair   signature

_____
* DATE of Approval by Graduate Council

_____   _____   _____
printed name   Reported by Graduate Council Chair   signature

_8/19/08_
* DATE of Approval by Health Care Colleges Council (HCCC)

Heidi Anderson , _____
printed name   Reported by Health Care Colleges Council Chair   signature

_____
* DATE of Approval by Senate Council

_____
Reported by Office of the Senate Council

_____
* DATE of Approval by University Senate

_____
Reported by Office of the Senate Council

*If applicable, as provided by the *University Senate Rules. (http://www.uky.edu/USC/New/RulesandRegulationsMain.htm)*

Rev 8/07

BST/CPH 639: Computing Tools for the Biomedical Sciences

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6. Long (2005). *Regression Models for Categorical Dependent Variables Using Stata.*
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9. Everitt and Rabe-Hesketh (2001). *Analyzing Medical Data using S Plus.*
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Elementary categorical data analysis
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Nonparametric procedures
Bootstrapping
Simulation

IV: Programming
Writing independent functions
For loops, do loops, if statements

V: Epi-Info, PEPI
Estimating and comparing epidemiologic risk, odds, rates, and survival
Data manipulation
Categorical Analysis
Odds ratios, risk ratios, risk differences, ROC Curves

Logistic regression and survival analysis
Analysis of complex survey data

VI: Introduction to specialized software packages
N-Query Advisor
NCSS
DBSM Copy
STAT Transfer

Assessment: Grades will be based on problem sets and lab assignments (40%), in-class exams (40%), and a final project (20%).

Grading Scale:

Grade	%
A	90-100
B	80-89
C	70-79
E	60-69