CGS Agenda Item 09-22
Effective Fall 2010

Eastern Illinois University

NEW/REVISED COURSE PROPOSAL FORMAT

(Approved by CAA on 4/13/06 and CGS on 4/18/06)

This format is to be used for all courses submitted to the Council on Academic Affairs and/or the Council on Graduate Studies. (See http://www.eiu.edu/~eiucaa/Directions.pdf for directions on completing this form.)

Please check one: ☒ New course ☐ Revised course

PART I: CATALOG DESCRIPTION

1. **Course prefix and number, such as ART 1000:** FCS 5901
2. **Title (may not exceed 30 characters, including spaces):** Statistical Analysis in FCS
3. **Long title, if any (may not exceed 100 characters, including spaces):** Statistical Analysis in Family and Consumer Sciences
4. **Class hours per week, lab hours per week, and credit [e.g., (3-0-3)]:** 3-0-3
5. **Term(s) to be offered:** ☒ Fall ☒ Spring ☐ Summer ☐ On demand
6. **Initial term of offering:** ☒ Fall ☐ Spring ☐ Summer **Year:** 2010
7. **Course description (not to exceed four lines):** This course will cover basic statistical concepts in Family and Consumer Sciences where students learn to apply statistics to professional practice and develop a more sophisticated understanding of the research process.
8. **Registration restrictions:**
   - **a. Identify any equivalent courses** (e.g., cross-listed course, non-honors version of an honors course). None
   - **b. Prerequisite(s),** including required test scores, courses, grades in courses, and technical skills. Indicate whether any prerequisite course(s) MAY be taken concurrently with the proposed/revised course. None
   - **c. Who can waive the prerequisite(s)?**

     ☐ No one ☐ Chair ☐ Instructor ☐ Advisor ☐ Other (Please specify)
   - **d. Co-requisites** (course(s) which MUST be taken concurrently with this one): None
   - **e. Repeat status:** ☒ Course may not be repeated.

     ☐ Course may be repeated to a maximum of hours or times.
   - **f. Degree, college, major(s), level, or class** to which registration in the course is restricted, if any: This course is restricted to graduate students enrolled in the MS in FCS graduate program and the Master of Arts Gerontology program.
   - **g. Degree, college, major(s), level, or class** to be excluded from the course, if any: Any student not enrolled in the Master of Science in Family and Consumer Sciences or the Master of Arts in Gerontology program.
9. **Special course attributes** [cultural diversity, general education (indicate component), honors, remedial, writing centered or writing intensive] **N/A**
10. **Grading methods** (check all that apply): ☒ Standard letter ☐ C/NC ☐ Audit ☐ ABC/NC ("Standard letter"—i.e., ABCDF--is assumed to be the default grading method unless the course description indicates otherwise.)

11. Instructional delivery method: ☒ lecture ☐ lab ☐ lecture/lab combined ☐ independent study/research

PART II: ASSURANCE OF STUDENT LEARNING

1. List the student learning objectives of this course: Upon completion of the course the student will be able to:

1. Apply basic statistical terms, principles, concepts, and techniques in FCS content areas.
2. Apply experimental design, frequency distribution, central tendency, variability, probability theory, and estimation in FCS content areas.
3. Summarize data by computing descriptive statistics and display findings in APA format, using tables and figures.
4. Select appropriate statistical techniques for a given set of variables and research questions/hypotheses in FCS content areas.
5. Test for group differences between means and for association between two variables.
6. Evaluate statistical analyses and findings in published research articles in FCS and related content areas.
7. Enter and analyze data using SPSS or other appropriate statistical software to address FCS related research questions and/or hypotheses.

a. If this is a general education course, indicate which objectives are designed to help students achieve one or more of the following goals of general education and university-wide assessment:

- **EIU graduates will write and speak effectively.**
- **EIU graduates will think critically.**
- **EIU graduates will function as responsible citizens.**

N/A

b. If this is a graduate-level course, indicate which objectives are designed to help students achieve established goals for learning at the graduate level:

- **Depth of content knowledge** #6
- **Effective critical thinking and problem solving** #2, #3, #5
- **Effective oral and written communication** #3
- **Advanced scholarship through research or creative activity** #1, #4, #7

2. Identify the assignments/activities the instructor will use to determine how well students attained the learning objectives:

	Midterm exam	Final exam	Application project	In-class exercises	Discussion/ participation
Apply basic statistical terms, principles, concepts, and techniques in FCS	X	X		X	X
Apply experimental design, frequency distribution, central tendency, variability, probability theory, and estimation in FCS	X	X	X	X	X
Summarize data by computing descriptive statistics and display findings in APA format, using tables and figures.	X	X	X	X	X
Select appropriate statistical techniques for a given set of variables and research questions/hypotheses in FCS	X	X	X	X	X
Test for group differences between means and for association between two variables.	X	X	X	X	X
Evaluate statistical analyses and findings in published research articles in FCS and related content area	X	X		X	X
Enter and analyze data using SPSS or other appropriate statistical software to enter and analyze data to address FCS related research questions and/or hypotheses.			X	X	

3. Explain how the instructor will determine students' grades for the course:

Discussion and participation in class; in-class exercises	20%
Application project	30%
Midterm exam	25%
Final exam	25%

4. For technology-delivered and other nontraditional-delivered courses/sections, address the following:

a. Describe how the format/technology will be used to support and assess students' achievement of the specified learning objectives:

b. Describe how the integrity of student work will be assured:

c. Describe provisions for and requirements of instructor-student and student-student interaction, including the kinds of technologies that will be used to support the interaction (e.g., e-mail, web-based discussions, computer conferences, etc.):

N/A

5. For courses numbered 4750-4999, specify additional or more stringent requirements for students enrolling for graduate credit. These include:

a. course objectives;

b. projects that require application and analysis of the course content; and

c. separate methods of evaluation for undergraduate and graduate students.

N/A

6. If applicable, indicate whether this course is writing-active, writing-intensive, or writing-centered, and describe how the course satisfies the criteria for the type of writing course identified. (See Appendix *.)

N/A

PART III: OUTLINE OF THE COURSE

Provide a week-by-week outline of the course's content. Specify units of time (e.g., for a 3-0-3 course, 45 fifty-minute class periods over 15 weeks) for each major topic in the outline. Provide clear and sufficient details about content and procedures so that possible questions of overlap with other courses can be addressed. For technology-delivered or other nontraditional-delivered courses/sections, explain how the course content "units" are sufficiently equivalent to the traditional on-campus semester hour units of time described above.

Week One
Introduction to statistics, course overview

Week Two
Basic statistical terms, concepts, and principles

Week Three
Measures of central tendency and frequency distributions

Week Four
Variability, probability theory, and estimation

Week Five
Introduction to SPSS part I

Week Six
Introduction to SPSS part II

Week Seven
Midterm exam

Week Eight
Descriptive statistics

Week Nine
Tables, charts, and graphs to illustrate descriptive statistics

Week Ten
Testing for group differences between means

Week Eleven
Testing for association between two variables

Week Twelve

Identifying appropriate technique for a given set of variables and research questions/hypotheses

Week Thirteen
Evaluating and critiquing empirical research and professional reports

Week Fourteen
Evaluating and critiquing empirical research and professional reports

Week Fifteen
Presentation of final projects

Final Exam

PART IV: PURPOSE AND NEED

1. Explain the department's rationale for developing and proposing the course.

- **a. If this is a general education course, you also must indicate the segment of the general education program into which it will be placed, and describe how the course meets the requirements of that segment.**
- **b. If the course or some sections of the course may be technology delivered, explain why.**

In 2008, the School of Family and Consumer Sciences (FCS) implemented a thesis, independent study, or internship component to the graduate program. With this requirement comes an anticipation of a rise in the number of theses produced in FCS. The number of students completing a thesis has increased dramatically over the last five years in FCS (191% increase during the 2003-2007 academic years compared to the 1997-2002 academic years), and with the new thesis/independent study/internship component there is anticipation that this number will continue to rise. As this is the case, the graduate faculty of FCS support incorporating a required statistical course for all M.S. in FCS graduate students. A statistics course will help FCS graduate students that choose to write a thesis, but it will also benefit all graduate students. This course will provide all M.S. in FCS graduate students with a sophisticated comprehension of the research process, help them to read and evaluate empirical articles, assist them in the assessment of research and program reports, provide them with a stronger consumer foundation, and will facilitate critical and analytic thinking skills.

2. Justify the level of the course and any course prerequisites, co-requisites, or registration restrictions.

There are no prerequisites for this course other than graduate student standing.

3. If the course is similar to an existing course or courses, justify its development and offering.

- **a. If the contents substantially duplicate those of an existing course, the new proposal should be discussed with the appropriate chairpersons, deans, or curriculum committees and their responses noted in the proposal.**
- **b. Cite course(s) to be deleted if the new course is approved. If no deletions are planned, note the exceptional need to be met or the curricular gap to be filled.**

This course has some overlap with a number of statistics courses on campus, which are content area centered. This course is designed for FCS graduate students only. The statistical techniques will be presented in an FCS research context and examples, problems, and class discussion will have direct application to FCS content

areas. As many FCS graduate students have no previous exposure to statistics and limited expertise in mathematics, this course will be taught with no pre requisites other than graduate student status.

4. **Impact on Program(s):**

    a. **For undergraduate programs, specify whether this course will be required for a major or minor or used as an approved elective.**
    b. **For graduate programs, specify whether this course will be a core requirement for all candidates in a degree or certificate program or an approved elective.**

This course will be required for all M.S. in FCS students.

If the proposed course changes a major, minor, or certificate program in or outside of the department, you must submit a separate proposal requesting that change along with the course proposal. Provide a copy of the existing program in the current catalog with the requested changes noted.

PART V: IMPLEMENTATION

1. **Faculty member(s) to whom the course may be assigned:**

Drs. Lisa Taylor, Kathleen O'Rourke, Richard Wilkinson or other qualified graduate faculty.

If this is a graduate course and the department does not currently offer a graduate program, it must document that it employs faculty qualified to teach graduate courses.

2. **Additional costs to students:**

Include those for supplemental packets, hardware/software, or any other additional instructional, technical, or technological requirements. (Course fees must be approved by the President's Council.)

N/A

3. **Text and supplementary materials to be used (Include publication dates):**

Sweet, S.A., & Grace-Martin, K. (2008). Data analysis with SPSS: A first course in applied statistics (3rd ed.). Boston, MA: Pearson.

PART VI: COMMUNITY COLLEGE TRANSFER

If the proposed course is a 1000- or 2000-level course, state either, "A community college course may be judged equivalent to this course" OR "A community college course will not be judged equivalent to this course." A community college course will not be judged equivalent to a 3000- or 4000-level course but may be accepted as a substitute; however, upper-division credit will not be awarded.

PART VII: APPROVALS

Date approved by the department or school: January 26, 2009

Date approved by the college curriculum committee: September 14, 2009

Date approved by the Honors Council *(if this is an honors course):*

Date approved by CAA: CGS:

*In **writing-active courses**, frequent, brief writing activities and assignments are required. Such activities -- some of which are to be graded – might include five-minute in-class writing assignments, journal keeping, lab reports, essay examinations, short papers, longer papers, or a variety of other writing-to-learn activities of the instructor's invention. Writing assignments and activities in writing-active courses are designed primarily to assist students in mastering course content, secondarily to strengthen students' writing skills. In **writing-intensive courses**, several writing assignments and writing activities are required. These assignments and activities, which are to be spread over the course of the semester, serve the dual purpose of strengthening writing skills and deepening understanding of course content. At least one writing assignment is to be revised by the student after it has been read and commented on by the instructor. In writing-intensive courses, students' writing should constitute no less than 35% of the final course grade. In **writing-centered courses** (English 1001G, English 1002G, and their honors equivalents), students learn the principles and the process of writing in all of its stages, from inception to completion. The quality of students' writing is the principal determinant of the course grade. The minimum writing requirement is 20 pages (5,000 words).