CGS Agenda Item: 14-21
Effective: Summer 2014

Eastern Illinois University

NEW/REVISED COURSE PROPOSAL FORMAT

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 FCS
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:** 2014

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.

7. **Registration restrictions:**

   a. **Identify any equivalent courses** (e.g., cross-listed course, non-honors version of an honors course). N/a

   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. Only open to MS in FCS majors unless they have permission of instructor?

   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, the MS in Dietetics program, and the MA in Gerontology program.

   g. **Degree, college, major(s), level, or class** to be excluded from the course, if any: Any student not enrolled in the MS in FCS graduate program, the MS in Dietetics program, or the MA in Gerontology program

8. **Special course attributes** [cultural diversity, general education (indicate component), honors, remedial, writing centered or writing intensive] **N/A**
9. **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.)

10. Instructional delivery method: ☐ lecture ☐ lab X lecture/lab combined ☐ independent study/research ☐ internship ☐ performance ☐ practicum or clinical ☐ study abroad ☒ Internet ☐ Hybrid ☐ Other

PART II: ASSURANCE OF STUDENT LEARNING

1. **List the student learning objectives of this course:**

   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

   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.

   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** (objectives 1-7)
      - **Effective critical thinking and problem solving** (objectives 4-7)
      - **Effective oral and written communication** (objectives 3 and 6)
      - **Advanced scholarship through research or creative activity** (objective 7)

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

   Students will engage in online discussions and reflections based on content presented. (objectives 1-6)
   Students will complete brief examinations to measure knowledge gained (objectives 1-6)
   Students will develop their own research project, collect and analyze original data, and develop a written report as a final project (objective 7)

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

Discussion and participation in class activities	30%
Application assignment	40%
Midterm exam	20%
Final exam	20%

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.):

a.) Students will be assigned an application activity every week concerning the material covered. They will also be required to participate in an online discussion developed by the instructor. A discussion rubric will be used to evaluate the content of the discussion postings. Students will also be tasked with finding research articles on their own and submitting an evaluation of the statistical analysis and results for the entire class to view and provide feedback. D2L is well equipped to support the assessment of these student achievement exercises.

b.) The instructor will correspond with each student on a regular basis. Each posting on the discussion board will reflect the student's name and will be monitored carefully. The discussions will be structured in a manner that will promote integration of the materials on a deeper level. Turnitin plagiarism software will be used to help ensure original and authentic written work. The examinations will be timed and available for a limited time span with Respondus Lockdown browser enabled; however, notes and other resources can be utilized.

c.) Each student will be interacting directly with one another via D2L. Discussion boards, email, chat rooms and assignment boxes will be used for direct communication. Students will also have the opportunity to correspond through telephone or in person, if they so desire.

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

d. course objectives;

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

f. 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 (2.5 hours)
Introduction to statistics, course overview

Week Two (2.5 hours)
Basic statistical terms, concepts, and principles

Week Three (2.5 hours)
Measures of central tendency and frequency distributions

Week Four (2.5 hours)
Variability, probability theory, and estimation

Week Five (2.5 hours)
Introduction to SPSS part I

Week Six (2.5 hours)
Introduction to SPSS part II

Week Seven
Midterm exam

Week Eight (2.5 hours)
Descriptive statistics

Week Nine (2.5 hours)
Tables, charts, and graphs to illustrate descriptive statistics

Week Ten (2.5 hours)
Testing for group differences between means

Week Eleven (2.5 hours)
Testing for association between two variables

Week Twelve (2.5 hours)
Identifying appropriate technique for a given set of variables and research questions/hypotheses

Week Thirteen (2.5 hours)

Evaluating and critiquing empirical research and professional reports

Week Fourteen (2.5 hours)
Evaluating and critiquing empirical research and professional reports

Week Fifteen (2.5 hours)
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.**

    Due to the success of a previous cohort of high school FCS teachers seeking a MS in FCS degree and assessment data supporting the development of an online MS in FCS program, this course will be part of the online MS in FCS teacher cohort program. The course is offered on-campus currently and the current proposal has been adjusted and modified for technology delivery for the online MS in FCS cohort. Initially, the course will only be offered to students in the online MS in FCS cohort, but eventually it will be open to all MS in FCS students. The integrity of the class is maintained by following the same curriculum as the on-campus course offering.

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

This course is limited to MS in FCS, MS in Dietetics, and MA in Gerontology candidates. There are no prerequisites or co-requisites. This course reflects upper-level work and requires an understanding of the basic theoretical foundations of the discipline of FCS.

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 statusin specific programs as indicated in #2.

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 is currently required for all of the MS in FCS candidates and as an elective for the MS in Dietetics, and MA in Gerontology candidates, the ability to offer the course in an online format will not change these requirements.

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.

N/a

PART V: IMPLEMENTATION

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

Lisa Moyer, Katherine Shaw, Crystal Duncan-Lane, and Other Qualified FCS Graduate Faculty as Approved by the FCS Chair and/or Assistant Chair.

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):

Salkind, N. (2013). *Excel statistics: A quick guide* (2nd ed.). Thousand Oaks, CA: Sage Publications. ISBN: 9781452257921.

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: February 6, 2014

Date approved by the college curriculum committee: February 17, 2014

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).