Eastern Illinois University
New Course Proposal
SOC 3691, Social Statistics, Honors

Please check one:  X□ New course  □ Revised course

PART I: CATALOG DESCRIPTION
1. Course prefix and number:  Soc. 3691
2. Title: Social Statistics, Honors
3. Long title: Social Statistics, Honors
4. Class hours per week, lab hours per week, and credit: (3-1-4)
5. Term(s) to be offered: On demand
6. Initial term of offering: Fall, 2007
7. Course description: Survey of statistical techniques used to summarize and describe the quantitative characteristics of social research. The course includes both descriptive and inferential statistics, using software to analyze survey data, collected by U.S. Government and/or other organizations.

8. Registration restrictions:
   a. Identify any equivalent courses Sociology 3610 (non-honors version)
   b. Prerequisite(s): SOC 1838G
   c. Who can waive the prerequisite(s)?
      □ No one  □ Chair  X□ Instructor  □ Advisor  □ Other (Please specify)
   d. Co-requisites:  None
   e. Repeat status:  X□ Course may not be repeated.
   f. Degree, college, major(s), level, or class to which registration in the course is restricted, if any: Honors Sociology majors
   g. Degree, college, major(s), level, or class to be excluded from the course, if any: non-sociology majors

9. Special course attributes:  honors

10. Grading methods (check all that apply): X□ Standard letter  □ C/NC  □ Audit  □ ABC/NC

11. Instructional delivery method: Lectures and Lab work

PART TWO: ASSURANCE OF STUDENT LEARNING

1. List the student learning objectives of this course:
   a. This course aims to teach the students how to
      1. analyze sociological data
      2. manipulate the data to obtain valid answers to theoretical questions
      3. identify reasons behind, and the logic of, various statistical techniques
4. apply the basic language and logic of descriptive and inferential statistics which allow them to appraise the quality of research and statistics discussed in mass media, in government publications, and/or in other organizational printouts.

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

- **Examinations**: (objective 1; objective 3).
- **Homework**: (objective 1; objective 2; objective 3)
- **Lab Assignments**: (objective 1; objective 2; objective 3; objective 4)
- **Tutoring**: (objective 1; objective 2; objective 3; objective 4)

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

   Examinations: 64%
   Homework: 29%
   Lab Assignments: 7%

   Journaling Activity: 0% (honors student(s) react to the experience of providing tutorial for a minimum of two hours per week)

4. This course is not technology-delivered.

5. This course is not for graduate credit.

6. This course has no writing designation.

**PART III: OUTLINE OF THE COURSE**

**Week 1: Read Chapter 1 and 2:**

- Organization and orientation.
- Definition of statistical analysis.
- Some major statistical concepts.
- Levels of Measurement.
- Some descriptive statistics.

**Week 2: Read chapter 2, sections 5-7.**

- Using SPSS to analyze data.
- Reviewing some basic algebra.
- Frequency Distribution and graphing.
- Solving some problems.
- Review for the first exam.

**Week 3: Read Chapter 3, sections 1-7:**
• Measures of central tendency:
  • The mean, the median, and the mode.
  • The measures of central tendency and the levels of measurement.
  • Comparing the measures of central tendencies.

**Week 4: Read Chapter 4, Sections 1-8.**

• Measures of dispersion.
  • The range, the mean deviation, standard deviation, and variance.
  • Comparing the measures of dispersion.
  • Solving some problems and answering questions.

---

**The First Examination**

**Week 5: Read Chapter 5, Sections 1-6.**

• Standard score (Z-Score).
  • Probability Distribution.
  • Normal Distribution.
  • Standard normal distribution.
  • Probability in a normal distribution.
  • Solving some problems.

**Week 6 and 7: Read Chapter 6, Sections 1-5 & Chapter 7, Sections 1-7.**

• **Inferential statistics:** A few key concepts:
  • Sampling distribution of the means.
  • Central limit theorem.
  • Estimation of a parameter.
  • Point estimate
  • Interval estimate.
  • Estimation of a population's mean.
  • Estimation of a population's proportion.
  • Solving some problems.

---

**The Mid-term Examination**

**Week 8: Read Chapter 8, Sections 1-7 & Chapter 9, Sections 1-6.**

• Hypothesis testing, one sample.
  • Hypothesis testing, one or two tailed test.
  • Hypothesis testing, T-test.
  • Five steps in testing a hypothesis.
  • Solving some problems.
**Week 9 & 10: Read Chapter 10, Sections 1-8.**

- The Analysis of variance:
- The logic of ANOVA.
- Using SPSS to test ANOVA.
- Solving some problems.

**Week 11: Read Chapter 12, 13, & 14, all Sections.**

- Introduction to Correlation.
- Scatter diagrams to display correlation.
- Measures of association between two **nominal** variables.
- Calculation and interpretation for phi.
- Calculation and interpretation for Cramer’s V.
- Calculation and interpretation for Lambda.

**Week 12: Read Chapter 13, Sections 1-3 & Chapter 14, Sections 1-3**.

- Chi-Square correlation.
- Testing the significance of Chi-Square.
- Interpretation of Chi-Square.
- Using SPSS for testing Chi-Square.
- Solving Some problems.

---

**The Third Examination**

**Week 13: Read Chapter 15, Sections 1-6.**

- Correlation between two **ordinal** variables.
- Calculation and interpretation for Gamma
- Calculation and interpretation for Somers’ D.
- Calculation and interpretation for Kendall T-b.

**Week 14: Read Chapter 16, Sections 5-7.**

- Scatter diagram.
- Spearman’s Correlation.
- Testing the significance of the correlation.
- Solving some problem/ answering questions.

**Week 15: Read Chapter 16, Sections 3-4.**

- Regression and prediction.
- Testing for significance of correlation coefficients.
- Interpretation of coefficients.
- Using SPSS to calculate correlation coefficients.
- Review and solving some problems for the final exam.
PART IV: PURPOSE AND NEED

1. Explain the department’s rationale for developing and proposing the course: As one of the core courses for the sociology major, statistics is critical for understanding and conducting sociological research. Students entering the departmental honors program should have the option of selecting statistics as one of their honors courses, particularly as it has the potential to contribute substantially to the completion of their honors thesis.

2. Justify the level of the course and any course prerequisites, co-requisites, or registration restrictions. The course is an honors version of Soc 3610, social statistics.

3. If the course is similar to an existing course or courses, justify its development and offering.
   a. The contents are very similar to Soc. 3610 and similar to other statistics courses on campus but with application to sociology; but it is designed for the honor program.
   b. No course will be deleted; course is needed to support the proposed departmental honors program.

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. Social statistics is a core requirement for SOC majors. This course will be an option for those sociology majors completing the departmental honors program. Completion of this course will replace the required SOC 3610 for the core and count as three hours of honors.

PART V: IMPLEMENTATION

1. Faculty member(s) to whom the course may be assigned: Max Kashefi or other qualified faculty.

2. Additional costs to students: None

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


PART VI: COMMUNITY COLLEGE TRANSFER

A community college course will not be judged equivalent to this course

PART VII: APPROVALS

Date approved by the department or school ____________________________ Oct. 18, 2006

Date approved by the college curriculum committee ____________________________ January 12, 2007
Date approved by the Honors Council (if this is an honors course) 1-22-2007

Date approved by CAA: February, 8, 2007