New Course Request

Indiana University

South Bend Campus

Check Appropriate Boxes: Undergraduate credit [ ] Graduate credit [X] Professional credit [ ]

1. School/Division College of Liberal Arts & Sciences
2. Academic Subject Code POLS
3. Course Number Y503 (must be cleared with University Enrollment Services)
4. Instructor Trottier/Candler
5. Course Title Statistics for Public Management
   Recommended Abbreviation (Optional)
   (Limited to 32Characters including spaces)
   Fall 2008
7. Credit Hours: Fixed at [ ] 3 [ ] or Variable from [ ] to [ ]
8. Is this course to be graded S-F (only)? Yes [ ] No [X]
9. Is variable title approval being requested? Yes [ ] No [X]
10. Course description (not to exceed 50 words) for Bulletin publication: The fundamental logic of statistical inference, from description through to regression analysis.
11. Lecture Contact Hours: Fixed at [ ] 3 [ ] or Variable from [ ] to [ ]
12. Non-Lecture Contact Hours: Fixed at [ ] 3 [ ] or Variable from [ ] to [ ]
13. Estimated enrollment: 25 [ ] of which 100 [ ] percent are expected to be graduate students.
14. Frequency of scheduling: annual [ ] Will this course be required for majors? Yes [ ]
15. Justification for new course: This is the continuation of V506, taught in the current MPA Program. Change is due to IUSB SPEA restructuring. Yes [ ]
16. Are the necessary reading materials currently available in the appropriate library? Yes [ ]
17. Please append a complete outline of the proposed course, and indicate instructor (if known), textbooks, and other materials.
18. If this course overlaps with existing courses, please explain with which courses it overlaps and whether this overlap is necessary, desirable, or unimportant.
19. A copy of every new course proposal must be submitted to departments, schools, or divisions in which there may be overlap of the new course with existing courses or areas of strong concern, with instructions that they send comments directly to the originating Curriculum Committee. Please append a list of departments, schools, or divisions thus consulted.

Submitted by:

[Signature]

Department Chairman/Division Director
Date 1/23/08

Approved by:

[Signature]

Dean Assoc. Deans CAS
Date 2/13/08

Dean of Graduate School (when required)

[Signature]

Date

Chancellor/Vice-President

[Signature]

Date

University Enrollment Services

After School/Division approval, forward the last copy (without attachments) to University Enrollment Services for initial processing, and the remaining four copies and attachments to the Campus Chancellor or Vice-President.

UPS 724 University Enrollment Services Final—White; Chancellor/Vice-President—Blue; School/Division—Yellow; Department/Division—Pink; University Enrollment Services Advance—White
MASTER OF PUBLIC AFFAIRS PROGRAM
COURSE SYLLABUS
POLS – Statistics for public management
Sample syllabus

<table>
<thead>
<tr>
<th>Instructor</th>
<th>George Candler</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day/time</td>
<td>Monday 5:30-8:00</td>
</tr>
<tr>
<td>Location</td>
<td>DW 1235</td>
</tr>
<tr>
<td>Office</td>
<td>Weikamp 2229</td>
</tr>
<tr>
<td>Office phone</td>
<td>574-520-4136</td>
</tr>
<tr>
<td>Email</td>
<td><a href="mailto:gcandler@iusb.edu">gcandler@iusb.edu</a></td>
</tr>
</tbody>
</table>

Course Objective:

Greetings, and welcome to POLS Statistics for public management. The course catalog describes this course as “The fundamental logic of statistical inference, from description through to regression analysis.”

We will focus on the following issues:

1. Hypothesis testing and regression analysis.
2. Develop familiarity with spread sheets.
3. Look at the process of ‘qualitative’ (i.e. non-quantitative) research.
4. Look at the process of designing survey instruments and survey questions.
5. Introduce ourselves to categorical data analysis.
6. Introduce ourselves to program evaluation.

For those of you who are math phobic, this process is conceptual, not arithmetic. Calculators are allowed. The instructor is not a statsmeister, and appreciates both how important and how difficult it can be to learn this stuff.

Course structure:

There will be three complimentary means of instruction: readings, a web page, and class lecture sessions. The web page will both broadly discuss the week's material, and link you to other information relevant to the weekly subjects.

Readings will include those listed on the syllabus and drawn from the course texts, as well as various articles which will be distributed a week ahead. You will have noted that the class is scheduled for one, two and one half hour lecture each week. Don't fret: I will not drone through this whole period. We will try to divide the lectures into two, just over one hour periods with a 5-10 minute break between each. Building on lessons learned in my previous versions of this class (and I've taught this now at least ten times), the idea will be to spend much of the first hour talking about broader issues, then focus on the pure statistical stuff in the second hour.
Required texts:


To contain further student expenditure, we will also make use of (free) electronic materials available on line, through three media. First, EBSCO Host Research Databases, available on the Schurz Library system. To see if you can access these, try to click on the following. For off-campus access to this, you may need to reconfigure your browser:

Third, there is a lot of useful stuff available just through normal web links. Try, for instance, this link to a discussion of hypothesis testing.

Assignments, grading

There will be two major assignments, each worth 40% of the grade: a midterm exam, and a program evaluation project. Attendance/participation will count for the remaining 20%. The usual 90 = A, 80+ = B, etc. grade distribution will apply, unless I need to curve up to get a normal graduate class grade distribution.

Readings

Data sets

- Belle County survey (from O'Sullivan et al)
- Rhode Island/Massachusetts nonprofit accountability (Kara Neymeyr's BSC master's thesis)
- Equipment tracking vendor evaluation (Monique Deguara)
- Indiana -- Indiana counties dataset (from V500).
- Indiana factor -- Indiana counties dataset, modified for lecture 9, factor analysis
- Variance -- a dataset for chapter 13, based on O'Sullivan et al's Table 13.2
- Osceola -- fabricated sample of 100 household energy costs in Osceola
- The Scream -- a dataset of US states
- MPA market -- Gold/Candler MPA market survey
- caseload -- fabricated data of 100 caseworkers, comparing case load and clearance rate

Data set descriptions

- Belle County
- Rhode Island/Massachusetts nonprofit accountability
- Equipment tracking vendor evaluation survey
- MPA Market -- Gold/Candler MPA market survey (link to dataset and paper)

Date -- Topic (Readings)

9 January -- Introduction, and V500 review

- V500 review
o O'Sullivan (chapter 11)
  o Levin/Fox (chapters 3-5)
- The course (and some SPSS exercises)

16 January -- Martin Luther King, Jr. Holiday
- King's Nobel Prize acceptance speech

23 January -- V500 review continued
- Sampling
  o O'Sullivan (chapter 5), Levin/Fox (chapter 6)
- Confidence intervals
  o Levin/Fox (chapter 6)
- Hypothesis tests
  o O'Sullivan (chapter 12)
  o Levin/Fox (chapter 7)

30 January -- Categorical data analysis I
- Categorical data
  o Levin/Fox (p. 5-6)
  o O'Sullivan chapter 4 (O'Sullivan calls categorical data 'nominal')
- Reporting categorical data

6 February -- Categorical data analysis II
- Hypothesis tests
  o Levin/Fox (chapter 7)
- Correlation and regression

13 February -- Survey research and qualitative research
- Survey techniques
  o O'Sullivan (ch 6-7)
- Qualitative research conceptually

20 February -- Midterm 'exam'
- dataset
- Format: open book, open-note, open communication with colleagues/instructor. A number of exercises will be set, consistent with what we've been doing in the first half of this course, and you'll be asked to carry them out during the class period.

27 February -- Spring Break
6 March -- Visual presentation of data
- O'Sullivan et al (chapter 11 -- especially p. 319-33)

13 March -- Index construction
- O'Sullivan et al (ch 10)
- Extra SPSS output
- More or less optional:
    - JSTOR link.
  - And I've also modified the Indiana counties dataset, with the new, factor analysis stuff in it:
    - Indianafactor

20 March -- Tests of statistical significance
- O'Sullivan et al (chapter 12)
- Levin/Fox (chapter 7)

27 March -- Contingency tables and measures of association
- O'Sullivan et al (ch 13)

3 April -- Regression analysis
- Conceptually
  - Levin and Fox (Ch 11)
  - O'Sullivan et al (ch 14)
- SPSS

10 April -- Program evaluation I
- Research design -- the class will break into three or four groups, and develop a program evaluation design for one of four programs below:
  - Youth mentoring
  - Human service case load management
  - Equipment utilization efficiency
  - Economic development
- The format should be similar to that used in the research design 'semester paper' project in V500, with the addition especially of 'unit of analysis' to the specific components to be identified and incorporated into the evaluation design.

17 April -- Program evaluation II
- Data analysis
- The datasets:
  - Youth mentoring
  - Human service case load management
  - Equipment utilization efficiency
  - Economic development
  - Chapman

24 April -- Program evaluation III
- Data analysis, report presentation.
  - O'Sullivan et al (ch. 15)
  1 May -- Final exam -- to be negotiated!