Health services researchers and epidemiologists rely on many publicly and privately available secondary databases, ranging from those collected primarily for research and surveillance (e.g., the National Health Interview Survey) to those collected for administrative or billing purposes but which also have research utility (e.g., Medicare claims). CLRES 2131 will provide students with an opportunity to complete a mentored research project using one of these large secondary databases.

CLRES 2130 (“HSR Using Secondary Databases – Didactic Course”) is a prerequisite for this course. Over an 8-month period, students in CLRES 2131 will revise their research proposal from CLRES 2130, acquire the necessary data files to conduct their study, perform essential data cleaning, manipulation, and analyses, and develop an abstract for submission to a professional meeting as well as a draft of the manuscript based on their findings. Only students who plan to complete all course requirements are invited to enroll.

The goals of the course are twofold: (1) to provide students with concrete skills in large database analysis, interpretation of results, and authorship; and (2) to enable students to complete a high-quality research project for publication in a peer-reviewed journal and potentially for presentation at a professional meeting.

**Course Requirements**

During the independent study portion of the course, students will work individually with the course instructors to complete their proposed project. Throughout the course, students are obliged to keep instructors informed as to the status of the project, in terms of both progress and problems. Students will meet with the instructors as needed to discuss progress, plan analyses, receive any needed instruction and tutoring in data analysis or SAS programming techniques, and discuss interpretation of results.

The tasks for the independent study are summarized below:

- select a database and a research topic for analysis
- meet with instructors to coordinate research plan
- revise the proposal from CLRES 2130 in conjunction with instructors
- complete IRB requirements and data use agreements
- perform a literature review to identify relevant previous research
- obtain necessary data extracts
- design and conduct analyses
- interpret results
- complete a draft manuscript of the research findings

We previously included a tutorial in SAS during the first month of class because it was the most accessible software package for many of the datasets reviewed in CLRES 2130. We have discontinued the tutorial because other packages can now be used. However, SAS is a powerful package and students interested in learning more about it can check out the following resources:
EPID 2180: Epidemiological Methods 1
This is a semester-long course offered through the Graduate School of Public Health.

This is one of the friendliest books available for learning SAS. You can usually pick up a copy at the bookstore (or on Amazon).

The instructors for CLRES 2131 both use SAS and are willing to assist you if needed. The CRHC-Data Center also has programmers familiar with SAS.

**Course Mechanics**

3.0 credits

Course grades are assigned on a Pass/Fail basis. Students will be evaluated based on completion of both classroom and independent study requirements.

**Independent Study Milestones and Requirements**

Students can schedule meetings with the instructors throughout the course, but at a minimum they need to schedule two in-person meetings to review their progress and provide instructors with a brief written summary of their progress prior to the meeting. Students can use the following list of dates as a guide for reaching specific milestones in the course:

April 15 – Receive written feedback (comments, suggestions) from instructors.

* April 21 – Kickoff meeting for all registered students (Parkvale 219; Time TBA).

May 10 – Submit revised protocol and variable list to course instructors; submit IRB application.

June 1 – Meet with course instructors to review progress (written summary due 7 days prior to meeting).

July 14 – Complete data extraction, data cleaning, and data “checks” (e.g., variable frequencies, missing data).

August 18 – Select study population, complete “Table 1”, complete appropriate bivariate analyses.

September 1 – Meet with course instructors to review progress (written summary due 7 days prior to meeting).

September 15 – Draft a paper “shell” (including your completed introduction and the structure of your anticipated data tables and figures).

October 13 – Complete proposed multivariable analyses and refine models.
November 10 – Submit draft of manuscript for review, including structured abstract. (Advisers will review and provide comments within 2 weeks.)

* December 8 – Submit revised final paper with structured abstract to Amber Barnato (AEB@pitt.edu) and Cindy Bryce (bryce99@pitt.edu) through the course site on BlackBoard. Please also forward a copy of the “Instructions to Authors” from the journal for which you have styled the manuscript.

* Note: Dates for the kickoff meeting (April 21, 2008) and the final manuscript (December 8, 2008) are actual deadlines, but the other dates can be adjusted to fit with individual schedules. At the kickoff meeting, Amber and I would like to discuss scheduling additional group meetings (in-person) that coincide with some of the other milestones listed above – it might be helpful to exchange feedback with each other.

Course Policies

**Academic integrity**: Students in this course will be expected to comply with the University of Pittsburgh’s Policy on Academic Integrity. Any student suspected of violating this obligation for any reason during the semester will be required to participate in the procedural process, initiated at the instructor level, as outlined in the University Guidelines on Academic Integrity.

**Disabilities**: If you have a disability that requires special testing accommodations or other classroom modifications, you need to notify both the instructor and Disability Resources and Services no later than the 2nd week of the term. You may be asked to provide documentation of your disability to determine the appropriateness of accommodations. To notify Disability Resources and Services, call 648-7890 (Voice or TTD) to schedule an appointment. The Office is located in 216 William Pitt Union.

**Incomplete grades**: Students who are unable to complete the course for any reason must contact the course instructor as soon as possible to discuss grades and remediation [course reasons (“I” incomplete), extenuating personal reasons (“G” incomplete), withdrawal (“W”)]. Students will have one calendar year from the start of the course to complete the course requirements, otherwise an “I” or “G” grade will remain on the transcript.

**Accessibility**: Blackboard 7 is ADA Compliant and has fully implemented the final accessibility standards for electronic and information technology covered by Section 508 of the Rehabilitation Act Amendments of 1998. Please note that, due to the flexibility provided in this product, it is possible for some material to inadvertently fall outside of these guidelines.

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