

Epi 5143 – Epidemiological Research Using Large Databases Winter 2010

Instructors:

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General Objectives:

1. Learn the programming skills required to create and analyze administrative databases.
2. Understand the principles and available resources to optimize research from administrative databases.

Course Requirements:

1. Personal computer with internet access.
2. A copy of SAS. You can get a copy for your computer by going to <http://www.ccs.uottawa.ca/software/licensed/index.html> and completing the form. You will need your student number.
3. A copy of Adobe Reader or Acrobat.
4. Delwiche LD, Slaughter SJ. The Little SAS Book: A primer, Fourth Edition. 2008 SAS Press. Cary NC, USA. ISBN: 978-1-59994-725-9
5. A copy of PGP Whole Disk Encryption. This can be purchased for \$119 at <http://na.store.pgp.com/index.html> . This software is required to get a copy of the class data.

Classes:

All classes will take place in Room 2111 from 1-4pm on Wednesdays. The first 90 minutes will cover the conceptual topic of the day. The final 90 minutes will review the SAS topic of the day.

While you are doing your readings for each class, make sure you write down any questions. In the class, we will discuss each question / theme that has been identified by the students. If you prefer, you can email your question to us prior to class and we will ensure that it is discussed during the class.

Evaluation:

This is how your final mark will be calculated:

- a) Class participation: 20%
- b) Class quizzes: 30%
- c) Final exam or paper: 50%

You can opt to write a research paper instead of the final exam if your proposal for such a paper is approved by us. Details regarding this will be given in class.

Office Hours:

Given the small size of the class, we will not keep regular office hours. Instead, the best thing is to email any questions to either of us. If there is an issue that is best discussed on the phone or in person, please indicate so and we will contact you to arrange a meeting. Please note - we will cc the entire class on the response letter if we feel the question you raise could apply to others in the class.

Readings:

The first half of most classes will have 1 required reading. These, along with the supplementary readings, will be accessible through the class webpage (<http://www.ohri.ca/courses/EPI5143/entry.asp>). For the SAS topic, we recommend you review the slides +/- the pertinent section of *The Little SAS Book*. The SAS readings are optional.

SAS Topics:

The SAS topics were chosen to:

1. let you manipulate previously created datasets so that will allow you to answer a research question of interest
2. let you use SAS to create research papers and reports.

Each class will end with a quiz consisting of 5 questions that you will answer and hand in. These questions will be reviewed at the start of the next class.

Class Datasets:

You will be given a CD of data containing administrative data. Prior to receiving the data, you will need to load encryption software onto your computer and sign a confidentiality agreement. These data will allow you to practice SAS coding and complete the exercises.

Classes:

Date	Title	SAS Topic
6-Jan	Overview of administrative databases	Introduction to SAS
13-Jan	Overview of the OHDW	SAS Functions
20-Jan	How to access health data	Cleaning Datasets
27-Jan	How to identify diseases and procedures	Creating Flat Files
3-Feb	How to summarize and quantify disease	Linking Datasets
10-Feb	How to summarize and quantify data quality	Sample SAS Questions
17-Feb	How to standardize rates	Proc Tabulate + Proc Format
24-Feb	How to get supporting data free	Graphics in SAS
3-Mar	How to translate postal codes to census locations	Using SAS ODS
10-Mar	How to measure health quality	SQL processing in SAS
17-Mar	How to use census data	Macro processing 1
24-Mar	How to map health data	Macro processing 2
31-Mar	Final Exam	