**SYLLABUS**

**Course Name:** CLRE 252: Health Services Research

**Course Instructor:** Raphael E. Cuomo, PhD ([racuomo@ucsd.edu](mailto:racuomo@ucsd.edu)). Office hours by appointment.

**Objectives:** By the end of the course, students will be able to:

* Understand formulate research questions in health services research.
* Understand data sources and techniques to answer research questions in health services research.

**Instructional Design:** The course will involve lectures, exercises, remote classes, and interactive discussions. Practical exercises will be given at the end of each week to provide hands-on experience. A typical class schedule will involve roughly one hour of lecture followed by one hour preparing, doing, and reviewing a methodological exercise.

**Textbook:** None

**Grading:** Grades will be assigned based on 100 points:

A = 94-100+ A- = 90-93 B+ = 87-89 B = 84-86 B- = 80-83

C = 70-79 D = 60-69 F < 59

**Evaluation:**

* **Weekly Exercises (25%)**
* **Computer Labs (20%)**
* **SQL Query (5%)**
* **Final Exam (50%)**

**Weekly Exercises:** There will be 8 exercises, together counting for 25% towards the final grade. These exercises are designed to provide hands-on experience with the analytical methods conducted in health services research. They will be graded based on completion, not on accuracy or correctness.

**Computer Labs:** There will be 2 computer labs, each contributing 10% toward the final grade. Each lab will evaluate your capacity to follow detailed instructions to apply software techniques and produce output which addresses a research question relevant in health services research. Each lab will be available two weeks prior to the due date.

**SQL Query:** You will be required to write a basic SQL query incorporating all techniques described in class and to execute this query on the UCSD Research Dataset. You will need to submit both the query and the output on Canvas.

**Final Exam:** The final will be a written exam with multiple open-ended (i.e. essay) questions, each touching upon different topics covered in class lectures. It will a “pen and paper exam.” No external material, including class notes, will be permitted. Computers will not be allowed.

**Academic Conduct:** All students are expected to abide by the university's policy on academic honesty and integrity. Plagiarism will not be tolerated.

**SCHEDULE**

**Week 1 (Request Database Access & Set Up HS Duo)**

* Lecture Topics: Review of syllabus, schedule, and canvas site
* *Exercise (R): Syntax, import, dim, head, mean, sd, table, barplot, hist, write*

**Week 2**

* Lecture Topics: Data in HSR.
* *Exercise (R): ifelse, as, by, range, rownames, colnames, boxplot*

**Week 3**

* Lecture Topics: Health policy, insurance, and economics
* *Exercise (R): Join datasets, subsetting, aggregation, with, tapply.*

**Week 4**

* Lecture Topics: Conceptual models, cost-effectiveness
* *Exercise (R): dplyr package.*

**Week 5 (R Lab Due)**

* Lecture Topics: Health equity research
* *Exercise (SPSS): Compute and recode*

**Week 6**

* Lecture Topics: Clinical decision analysis
* *Exercise (SPSS): Visual binning and regression*

**Week 7 (SPSS Lab Due)**

* Lecture Topics: Surveys
* *Exercise (SQL): SELECT, WHERE*

**Week 8**

* Lecture Topics: Qualitative research
* *Exercise (SQL): COUNT, DISTINCT*

**Week 9 (Submit SQL Query and Output)**

* Lecture Topics: Field excursion.

**Week 10**

* Lecture Topics: Geospatial analysis and example HSR student studies. Review for final.

**Finals Week**

* **Final Exam**