PBIO 504: Introductory Biostatistics
Experimental Design and Analysis

Fall 2019 Syllabus and Policies

Meets on Thursday, 10:00 AM - 12:30 PM, Location: **MedDent SW 107**
(Exceptions: **08/29 NRB Auditorium, 10/17 NE 201C** and on **11/21** Room TBA)

Course Policies

Faculty: Dr. Anca Dragomir ad576@georgetown.edu
Office Hours: by appointment
Note: Please send email message the day before coming to office hours.

Teaching Assistant: Shiwei Lin sl1606@georgetown.edu
TA Office Hours: Wednesday 3:30-5:00 PM Bldg D Room 302
Note: Schedule your meeting with the TA during office hours or by appointment.

Homework: Homework is due weekly before the beginning of class. Please submit your homework as a Word document in Canvas.
For all homeworks (same for quizzes and exams) show all your work. This includes STATA output (save as rtf file or screenshot) and include in the Word doc.
Late homework submission results in 10 points deduction per day for that homework.

Grading:

Weekly homework assignments	30%
In class participation	5%
Quizzes and Presentations	5%
Mid-term exam (in class)	30%
Final exam (in class)	30%

Required Textbook
M. Pagano and K. Gauvreau, Principles of Biostatistics, 2nd edition, 2000: Duxbury Press.

This text covers the syllabus with numerous, well-designed exercises adapted for use with STATA and other software packages. It provides excellent background material in statistical foundation. The book is geared towards researchers, with real-world examples from the biomedical sciences.

Required Software
STATA is available online at:
https://georgetown.onthehub.com/WebStore/Welcome.aspx

Electronic Blackboard
All lecture notes, data sets, homework worksheets, handouts, and supplemental readings are posted on the Canvas web site (http://canvas.georgetown.edu). The lecture notes and homework assignments include supplemental material to the textbook and may appear on exams.

Tentative Schedule

	Date	Topic	Chapters
1	08/29	STATA software introduction Graphical display and summary of data	2, 3.1-3.2
2	09/05	Lab STATA. Probability and distributions	6.1-6.2, 7.1-7.2, 7.4
3	09/12	T-test	9.3 and 11
4	09/19	ANOVA	12
5	09/26	Lab Session	
6	10/03	Correlation & Regression	17-18
7	10/10	Epidemiology Introduction (Leon Gordis textbook) *Midterm Review Session*	---
8	10/17	MIDTERM EXAM (in class) NE 201C	---
9	10/24	Design and analysis of observational studies Categorical data	6.5, 15.1, 15.3
10	10/31	Categorical data analysis Design and analysis of clinical trials	14, 15 10
11	11/07	Power and sample size Survival analysis	10 21
12	11/14	Screening and diagnostic tests Articles Review and Meta Analysis	6.3-6.4 tba
13	11/21	Non-parametric methods	13, 17.3
14	12/05	*Review session*	
15	12/12	FINAL EXAM (in class) NRB Auditorium	---

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