EPI 204 **Spring 2021**	**Quantitative Epidemiology III** **Statistical Models**	**David M. Rocke** **March 30, 2021**

Course Information

Class Meetings:	Tuesday and Thursday 9:00am–10:20am Via Zoom
Lab:	Tuesday and Thursday 10:20am–10:50am Via Zoom
Office Hours:	By appointment (Zoom, email, or phone).
Office:	Cell: 530-304-1019 e-mail: dmrocke@ucdavis.edu web site: http://dmrocke.ucdavis.edu/
Texts:	**Logistic Regression: A Self-Learning Text (3rd ed.)**, Kleinbaum & Klein, Springer, 2010 **Survival Analysis: A Self-Learning Text (3rd ed.)**, Kleinbaum & Klein, Springer, 2012 *Download links on web site.*
Computer: **Software:**	You will need a desktop or laptop computer. OS X, Windows, or Linux should all be fine. Example analyses will be in R and sometimes SAS. You may use any software capable of the analyses.
TA:	Alec Michael (ajmichael@ucdavis.edu).
Course Grading:	Letter Grades based on – Homework – Class Attendance – Class Participation
Prerequisites	EPI 202 and 203 or the equivalent.

This course is an introduction to advanced regression methods for epidemiological research. The first part of the course will focus on generalizations of linear regression to binary data (logistic regression) and count data (Poisson regression). The second part of the course will focus on time-to-event data (survival analysis). We will look at the theoretical underpinnings of the models, but the main emphasis will be on model formulation, computation, and interpretation of results. As time permits, we will work on multi-level models near the end of the course.

Kleinbaum logistic regression data sets are at
http://web1.sph.emory.edu/dkleinb/logreg3.htm#data

Kleinbaum survival analysis data sets are at
http://web1.sph.emory.edu/dkleinb/surv3.htm#data