

Course	IGSP level	Pre-req	Software Used	Topics Covered	Possible application
SW 605, 606: Social work	A	None	SPSS	T-test, contingency tables, general linear model, generalized linear model, statistical testing	This is good for the basics of statistics. It does not go into detail about the math behind the statistics but focuses more on application.
Stat 537, 538: Statistics for Research	A	None	SAS or JMP	Probability theory, t-test, contingency tables, general linear model, generalized linear model	This is good for the basics of statistics. It goes into depth about the math, equations, and proofs of statistical testing.
Stat 578: Categorical Data Analysis	B	Level A	SAS, R, SPSS	Contingency tables, Generalized linear model, ANOVA, clustering.	This class covers most of the same topics regarding categorical data as the A level courses. However, the topics are covered in greater depth with more discussion on comparing the different distributions and formulas.
Psy555: Psychometrics	B	Level A	SPSS	Construction of measures for survey research and clinical setting	This class focuses on the application of surveys to clinical setting but the skills learned can be applied to survey analysis.
Stat597: Applied multivariate methods	B	Level A	SAS	CFA, EFA, clustering	This class is good for the ground works of SEM and other latent variable analysis as well as the basis for scale construction.
IOP627: Structural Equation Models	B	Level A & a multivariate method	AMOS, MPLUS	Structural Equation Modeling, CFA, matrix algebra	This is the only class on campus that teaches SEM.
Stat 563: Probability and Statistical inference	C	Level A	R	Probability, concepts of convergence, distributions, estimation principles, confidence intervals, principles of hypothesis testing, introduction to bayes theory.	This class is very theory based and uses a lot of math. However, it is good for understanding all of the underlying mechanics of statistics.
Stat 567: Analysis of lifetime data	C	Level A and some calculus	JMP, stata	Survival analysis	This is good if you have longitudinal data with a dichotomous outcome and the data is in some way censored.
Sociology 534: Advanced topics	B	Level A and a few more stat courses	R	When last taught this class covered HLM and Monte Carlo	The topic of this course can change so check each semester.

Notes:

IGSP is the name of the program on UT campus that will allow you to obtain a minor in statistics. Only specific courses count towards this minor. If you get the IGSP masters degree then are a specific number of classes you have to take in each level. The website for IGSP is <http://www.bus.utk.edu/stat/igsp/> . Dr. Mary Sue Younger is the program head and Dr. Sky Huck is our college representative. Dr. Orme is the representative for the college of social work. They can provide answers to question about this program.

JMP and R are both statistical programs. JMP is produced by SAS and is similar to SPSS with drop down menus. R is a syntax program with no central producer. It is frequently used for high end statistics. It is a free program that is growing in popularity. To learn more visit <http://www.r-project.org/> .

It would be beneficial for students to take the basic classes before moving further in the sequence, even if there are no formal pre-requisite classes of other requirements. Often, students will need to email the professors of the upper level classes to ask them to be let into the class. This is likely because CFS students are not Stats students and seats typically go first to Stats majors.

For a complete list of courses see: <http://www.bus.utk.edu/stat/igsp/courses.htm>