Learning & Using Statistics
Mayo Resources

	For people without much time *A la carte bite-sized learning*	**For people with time to invest** *Full-length courses*
Statistical Concepts	**Workforce Development Modules (CCaTS)** http://www.mayo.edu/ctsa/education/professional-development/online-courses/statistics • Study designs commonly used in clinical research • Basics of statistics • Avoiding statistical pitfalls • Sample size and power considerations • T-tests and ANOVA Models • … and many more! **Statistics for Nonstatisticians website** Includes examples and JMP help http://mayoweb.mayo.edu/statisticshelp/ (must be logged in to the Mayo network) • Continuous, binary, and time-to-event outcome variables • Regression (linear, logistic, Cox) • Glossary of statistical terms	**Courses in Statistics & Epidemiology (CTSC courses)** http://www.mayo.edu/ctsa/education/current-courses-in-clinical-and-translational-science-at-mayo-graduate-school • 5600: Statistics in Clinical Research (Intro to statistics) • 5610: Introductory Statistical Methods II (Intro to regression) • 5640: Logistic Regression • 5650: Survival Analysis • 5300, 5310, 5390: Epidemiology I, II, III **Online self-paced course: Essentials** http://www.mayo.edu/ctsa/education/research-applications-for-practice-improvement-decisions-rapid-certificate-program • Includes Introductory Statistics and Epidemiology

Develop a Database: REDCap	**Workforce Development Modules (CCaTS)**
	http://www.mayo.edu/ctsa/education/professional-development/online-courses/statistics
	• Clinical data management
	• Data basics
	
	Data Collection Basics
	http://bsiweb.mayo.edu/node/781400
	(must be logged in to the Mayo network)
	• Variable types
	• Building a REDCap database
		Full length course on databases
		http://www.mayo.edu/ctsa/education/current-courses-in-clinical-and-translational-science-at-mayo-graduate-school
		• Managing and Displaying Data (CTSC 5710)
		  • Database development
		  • Learn REDCap

Statistical Software: JMP	**Workforce Development Modules (CCaTS)**
	http://www.mayo.edu/ctsa/education/professional-development/online-courses/statistics-and-informatics-software
	
	• JMP dataset creation
	• Using formulas to make new variables
	• Manipulating datasets
	• Descriptive statistics & saving results
	• Statistical Analysis in JMP
	  • Means, proportions, agreement
	  • Linear regression & correlation
	  • Logistic regression & ROC curves
	  • Survival analysis
		Full length course on JMP
		http://www.mayo.edu/ctsa/education/current-courses-in-clinical-and-translational-science-at-mayo-graduate-school
		• Utilizing Statistics in Clinical Research (CTSC 5601)
		  • Review intro to statistics
		  • Online JMP movies
		  • In person computer labs
		• JMP is also used throughout upper level statistical courses

Want to use the QR codes (the squares) to quickly open the websites?
On a smartphone: use a QR reader app, such as NeoReader, to take a picture of the QR code.