

**Graduate Student Orientation
Schedule
August 15 – 25**

<i>Date</i>	<i>Time</i>	<i>Location</i>	<i>Topic</i>	<i>Person</i>
Tue, Aug 15	10:00 - 12:00	332 Evans	Probability I: Independence and conditional probability; random variables, functions of random variables; cdf and pdf; expected values and variance	Daisy
	12:00 – 2:00		Welcome lunch with graduate students	
	2:00 – 4:00	332 Evans	Statistics I: Estimation - Method of moments maximum likelihood; confidence Intervals; bootstrap	Charlotte
Wed, Aug 16	9:00 -12:30	1011 Evans	Department Orientation - meet staff, tour of facility, appointments, computer accounts, ergonomic training	Angie & Ryan
	2:00 – 3:30	432 Evans	Linear Algebra (with Matlab/R): vector spaces, matrix operations, fundamental spaces, projections and least squares	Oleg & Daisy
	4:00 – 5:00	1011 Evans	Faculty Research Talks – Brillinger, Huang	
	6:00 -		Oakland A's game – meet at downtown Berkeley BART station or at the Coliseum	
Thu, Aug 17	10:00 – 12:00	332 Evans	Probability II: Named distributions; joint distributions; Markov Chain; delta method	Daisy
	2:00 – 4:00	432 Evans	Monte Carlo, bootstrap, optimization (with R/Matlab)	Charlotte & Daisy
	5:00 – 8:00		Wine Tasting – at Phil's place, 1620 Berkeley Way	
Fri, Aug 18	10:00 – 12:00	332 Evans	Real Analysis I: metric spaces, sequences/limits, Oleg open/closed sets, continuous functions	
	2:00 – 4:00	332 Evans	Probability III: Convergence in probability; convergence in distribution; law of Large numbers; central limit theorem	Daisy
Sat, Aug 19	11:00 -		lunch at Ferry Building, on to MOMA – meet at downtown Berkeley BART	

<i>Date</i>	<i>Time</i>	<i>Location</i>	<i>Topic</i>	<i>Person</i>
Mon, Aug 21	10:00 – 12:00	332 Evans	Linear Algebra II: determinants, eigenvalues & eigenvectors, complex matrices & diagonalization, applications to statistics	Oleg
	1:30 – 3:30	332 Evans	Statistics II: Large sample properties of maximum likelihood; Cramer Rao lower bound; Hypothesis tests - likelihood ratio tests	Charlotte
	4:00 – 5:00	1011 Evans	Faculty Research Talks: Bickel	
Tue, Aug 22	10:00 – 12:00	432 Evans	Introduction to Matlab	Phil
	1:30 – 2:00	332 Evans	PhD Advising	Jim, Cori & Deb
	2:00 – 3:30	332 Evans	Introduction to SCF Computing Environment	Phil
	4:00 – 5:00	1011 Evans	Faculty Research Talks: Evans, Jewell, Sinclair	
Wed, Aug 23	10:00 - 12:00	332 Evans	Real Analysis II: connectedness, compactness, results on reals, function spaces	Oleg
	1:30 – 3:30	432 Evans	Introduction to R	Phil
	4:00 – 5:00	1011 Evans	Faculty Research Talks: Yu, Aldous	
Thu, Aug 24	8:30- 3:00		GSI Teaching Conference (International GSIs)	
	10:00 – 12:00	332 Evans	Statistics III: Linear models - formulation, estimation properties of estimates, implementation in R; regression and ANOVA	Charlotte
Fri, Aug 25	8:30 - 3:50		GSI Teaching Conference (all GSIs)	

References:

1. Real Analysis: C.C. Pugh, *Real Mathematical Analysis*
2. Linear Algebra: G.Strang, *Linear Algebra and its Applications*, 3rd ed.
D.A. Freedman, *Statistical Models: Theory and Practice* (215a book, ch.3)
D.C. Montgomery et al, *Introduction to Linear Regression Analysis*, 3rd ed, (appendix)
Bickel and Doksum, *Mathematical Statistics* (appendix B)
3. Statistics: Rice, *Mathematical Statistics and Data Analysis*, chapters 8, 9, 14
Faraway, *Practical Regression and Anova using R* (online version).
4. Probability: J. Pitman, *Probability*
S. Ross, *Probability Models*
P. Bickel and K. Doksum, *Mathematical Statistics* (appendix A)
J. Stewart, *Calculus*
J. Rice, *Mathematical Statistics and Data Analysis*, chapters 1-6
George Casella, *Statistical Inference*