

Department	Semester Course #	Course Title	Typical Course Professor
<b>REQUIRED (ONE COURSE, CROSS-LISTED)</b>			
ESQREM	8725	Quantitative Methods Capstone Seminar	O'Connell, Feng, Garabed
HDFS	8725	Quantitative Methods Capstone Seminar	O'Connell, Feng, Garabed
VETPREV	8725	Quantitative Methods Capstone Seminar	O'Connell, Feng, Garabed
<b>ELECTIVES (THREE COURSES; at least TWO departments from outside home department must be represented, including above)</b>			
ACEL	8880	Instrumentation and Procedures for Data Collection	Birkenholz
ACEL	8895	Applied Data Reduction Techniques	Birkenholz
COMM	7710	Introduction to Social Networks	Bond
COMM	8801	Advanced Topics Seminar: Current Topics in Methodology or Design	Varies
CSW	8405	Introduction to Structural Equation Modeling	Bowen
ECON	6731	Survey of Econometric Methods II	Varies
ECON	6732	Survey of Econometric Methods II	Varies
ECON	7700	Mathematics for Economics	Varies
ECON	8732	Econometrics II	Varies
ECON	8733	Econometrics III	Varies
ECON	8830	Advanced Econometrics I	Varies
ECON	8831	Advanced Econometrics II	Varies
ECON	8832	Advanced Econometrics III	Varies
ECON	8833	Micro Econometrics	Varies
ECON	8834	Advanced Time Series Econometrics	Varies

ENR	8890.01	Hierarchical Models in Wildlife Ecology	Varies
ESQREM	7627	Sampling and Survey Research Methods	Gallant
ESQREM	7643	Categorical Data Analysis	O'Connell
ESQREM	7661	Instrument Construction	Gallant
ESQREM	7663	Test Reliability and Validity	D'Agostino
ESQREM	8648	Multivariate Experimental Designs	Gugiu
ESQREM	8657	Factor and Cluster Analyses	Gugiu
ESQREM	8658	Applied Multilevel Data Analysis	Kim, O'Connell
ESQREM	8659	Structural Equation Modeling	Kim
ESQREM	8674	Scaling and Item Response Theory	D'Agostino
ESQREM	8895.6	Advanced Topics Seminar: Current Topics in Methodology or Design	Varies
HDFS	8860	Structural Equation Modeling for Couple and Family Therapy	Bartle-Haring
HDFS	8862	Advanced Topics Seminar in Human Development and Family Science (Dyadic Data Analysis, Longitudinal Data Analysis, Secondary Data Analysis)	Bartle-Haring, Feng, Snyder
HDFS	8870	Family Systems Assessment	Bartle-Haring
ISE	5110	Design of Engineering Experiment	Varies
ISE	6300	Simulation for Analytics and Decision-Making	Varies
POLSCI	7552	Quantitative Political Analysis II	Cranmer
POLSCI	7553	Machine Learning/Causal Inference	Acree/Minozzi
POLSCI	7780	Political Science Research Methods	Varies

POLSCI	7788	Selected Topics in Political Methodology	Varies
POLSCI	8174.05	Network Analysis	Cranmer
PSYCH	6822	Mediation, Moderation, and Conditional Process Analysis	Hayes
PSYCH	6863	Psychometrics	Varies
PSYCH	7820	Fundamentals of Factor Analysis	Varies
PSYCH	7821	Covariance Structure Models	Varies
PSYCH	7822	Fundamentals of Item Response Theory	DeBoeck
PSYCH	7823	Analysis of Repeated Measures and Longitudinal Data	Varies
PSYCH	7824	Nonparametric Statistics	Nygren
PSYCH	7825	Simulation Modeling	Myng
PSYCH	7896	Special Topics in Quantitative Psychology	Varies
PSYCH	8896	Advanced Seminar in Quantitative Psychology	Varies
PUBAFRS	5770	Risk and Decision Analysis	Dormady/Morgan
PUBAFRS	7572	Policy Simulation and Modeling	Desai
PUBHBIO	7215	Design and Analysis of Clinical Trials	Varies
PUBHBIO	7220	Applied Logistic Regression	Varies
PUBHBIO	7225	Survey Sampling Methods	Varies
PUBHBIO	7230	Applied Longitudinal Data Analysis	Varies
PUBHBIO	7235	Applied Survival Analysis	Varies
PUBHBIO	7240	Applied Statistical Analysis with Missing Data	Varies
PUBHBIO	7245	Biostatistical Collaboration	Varies

PUBHBIO	7255	Causal Inference	Varies
PUBHBIO	8230	Advanced Longitudinal Data Analysis	Varies
PUBHBIO	8235	Advanced Survival Analysis	Varies
PUBHEPI	5420	Mathematics of Infectious Disease Dynamics	Varies
SOC	6650	Categorical Data Analysis	Varies
SOC	6655	Sociological Research Methods	Varies
SOC	8405	Quantitative Analysis Issues: Introduction to Structural Equation Modeling	Bowen
SOC	8607	Causal Modeling	Varies
SOC	8632	Longitudinal Data Analysis	Varies
SOC	8651	Hierarchical Linear Models	Varies
STAT	6510	Survey Sampling Methods	Varies
STAT	6520	Applied Statistical Analysis with Missing Data	Varies
STAT	6530	Introduction to Spatial Statistics	Varies
STAT	6540	Applied Stochastic Processes	Varies
STAT	6550	The Statistical Analysis of Time Series	Varies
STAT	6560	Applied Multivariate Analysis	Varies
STAT	6570	Applied Bayesian Analysis	Varies
STAT	6605	Applied Survival Analysis	Varies
STAT	6610	Applied Nonparametric Statistics	Varies
STAT	6620	Environmental Statistics	Varies
STAT	6625	Statistical Analysis of Genetic Data	Varies

STAT	6650	Discrete Data Analysis	Varies
STAT	6730	Introduction to Computational Statistics	Varies
STAT	6740	Data Management and Graphics for Statistical Analyses	Varies
STAT	7430	Generalized Linear Models	Varies
STAT	7460	Advanced Design and Analysis of Experiments	Varies
STAT	7550	Time Series Theory and Methods	Varies
STAT	7560	Multivariate Analysis	Varies
STAT	7605	Advanced Regression Modeling of Time-to-Event Data	Varies
STAT	7620	Elements of Statistical Learning	Varies
STAT	7630	Nonparametric Function Estimation	Varies
STAT	7640	Order Statistics	Varies
STAT	7730	Advanced Computational Statistics	Varies
STAT	8605	Advanced Survival Analysis	Varies
STAT	8625	Statistical Methods for Analyzing Genetic Data	Varies
VETBIOS	7900	Data Management for Researchers	Varies
VETPREV	7725	Veterinary Epidemiology and Applied Data Analysis	Varies
VETPREV	8830	Modeling Transmission Processes and Control of Infectious Diseases	Varies