Suggested List of Major/Minor Elective Statistics Courses
Fall 2022

Use the list below as a guideline for courses that will be approved as a major or minor elective. If your course is not listed here, send the syllabus (including topics covered) to Dr. Bindu Viswanathan for evaluation. Her email address is bindu@austin.utexas.edu.

Suggested Major Elective Courses - 9 hours of major elective courses required. One course/three credit hours must be an SDS course.

Courses with an asterisk (*) are crosslisted.
Courses offered in Fall 2022 are highlighted below.

ASE 381P 8-STOCH ESTIMATION AND CONTROL
BIO 384K 20-REC ADVS IN COMPUTATNL BIOL*
BIO 384K: BAYESIAN MODELING*
BIO 384K: MUDDYBOOTS STATISTICS*
C E 387T DECISION, RISK, & RELIABILITY
C E 392E ACQUIS/ANLY TRANSPORTATN DATA
C E 392R DISCRETE CHOICE THRY/MODELING
CH 382L ADV PHYS CHEM: STAT MECHANICS
CS 380N: DATA MINING: A STATISTICAL LEARNING PERSPECTIVE*
CS 391D: DATA MINING: MATHEMATICAL PERSPECTIVE*
CS 395T: COMPUTATIONAL STATISTICS WITH APPLICATION TO BIOINFORMATICS*
CS 395T: SCALABLE MACHINE LEARNING
EDP 380C.16: HIERARCHICAL LINEAR MODELING
EDP 380D.12: COMPUTERIZED-BASED TESTING
EDP380D.4: PSYCHOMETRIC THEORY & METHOODS
EDP 380P: ITEM RESPONSE THEORY
EDP 381E ADVANCE ITEM RESPONSE THEORY
EDP 382K APPLIED BAYESIAN ANALYSIS*
EDP 382K: ADVANCED STATISTICAL MODELING
EDP 382K: ANALYSIS OF CATEGORICAL DATA
EDP 382K: FACTOR ANALYSIS
EDP 382K: STRUCTURAL EQUATION MODELING
EDP 382K: SURVEY OF MULTIVARIATE METHODS
EDP 384: META-ANALYSIS
ECE 380L: DATA MINING*
ECE 380L: INTRODUCTION TO PATTERN RECOGNITION AND COMPUTER VISION*
ECE 380N: STOCASTIC CONTROL THEORY
ECE 381J: PROBABILITY AND STOCHASTIC PROCESSES I
ECE 381M: PROBABILITY AND STOCHASTIC PROCESSES II
ECE 381V: ADVANCED DATA MINING
FIN 395 4-EMPIRCL METHS ASSET PRICING
M 389J PROBABILITY MODELS WITH ACTURARIAL APPLICATIONS

M 389P ACTURIAL STATISTICAL ESTIMATES
M 394C STOCHASTIC PROCESSES I
MIS 382N DATA MINING FOR BUSINESS INTELLIGENCE
ORI 390R 5-APPLIED STOCHASTIC PROCESSES*
ORI 390R 8-UEUEING THEORY
ORI 390R 9-SYSTEMS SIMULATION *
ORI 390R: APPLIED STOCHASTIC PROCESSES
ORI 390R: MARKOV DECISION PROCESSES*
ORI 390R: RELIABILITY THEORY AND MODELING
ORI 390R: TIME SERIES ANALYSIS
ORI 391Q: STOCHASTIC OPTIMIZATION*
ORI 397 INTRODUCTION TO DECISION ANALYSIS
ORI 397: DECISION MAKING
ORI 397: NUCLEAR SAFETY AND SECURITY
PSY 394T STRUCTURAL EQUATION MODELING
PSY 394U ANALYSIS OF FMRI DATA
PSY 394U/ SDS 384/ NEU 385L BOOTSTRAP STATISTICS*
SDS 380D. STATISTICAL METHODS II
SDS 383C STATISTICAL MODELING I
SDS 383D STATISTICAL MODELING II
SDS 384: TOPIC 1: APPLIED PROBABILITY
SDS 384: TOPIC 10: STOCHASTIC PROCESSES
SDS 384: TOPIC 5: MULTIVARIATE STATISTICAL ANALYSIS
SDS 384: TOPIC 8: TIME SERIES ANALYSIS
SDS 384: TOPIC 9: COMPUTATIONAL STATISTICS*
SDS 385: EVENT HISTORY ANALYSIS
SDS 385: SOCIAL STATISTICS: DISCRETE MULTIVARIATE MODELS
SDS 385: SOCIAL STATISTICS: DYNAMIC MODELS AND LONGITUDINAL DATA ANALYSIS
SDS 385: TOPIC 3: APPLIED MULTIVARIATE METHODS
SDS 385: TOPIC 4: ANALYSIS OF CATEGORICAL DATA
SDS 385: TOPIC 5: STRUCTURAL EQUATION MODELING
SDS 385: TOPIC 6: HIERARCHICAL LINEAR MODELING
SDS 385: TOPIC 7: SURVEY SAMPLING AND METHODOLOGY
SDS 385: TOPIC 8: INTRODUCTION TO BAYESIAN METHODS*
SDS 385: TOPIC 9: LONGITUDINAL DATA ANALYSIS
SDS 385: TOPIC 10: MODERN STATISTICAL METHODS*
SDS 385: TOPIC 12: META-ANALYSIS
SDS 385: TOPIC 13: FACTOR ANALYSIS
SDS 385: TOPIC 14: MAXIMUM-LIKELIHOOD STATISTICS
SDS 385: TOPIC 15: SURVIVAL ANALYSIS/DURATION MODELING
SDS 386C PROBABILISTIC GRAPHICAL MODELS
SDS 386D MONTE CARLO METHODS IN STATISTICS
SDS 387 LINEAR MODELS

SDS 389 TIMES SERIES & DYNAMIC MODELS
SDS 391D. DATA MINING*
SDS 392M. COMPUTATIONAL ECONOMICS*
SDS 393D. NUMERICAL ANALYSIS: INTERPOLATION, APPROXIMATION, QUADRATURE, AND DIFFERENTIAL EQUATIONS
SDS 394: SCIENTIFIC AND TECHNICAL COMPUTING*
SDS 394C. PARALLEL COMPUTING FOR SCIENTISTS AND ENGINEERS*
SDS 394D. DISTRIBUTED AND GRID COMPUTING FOR SCIENTISTS AND ENGINEERS*
SDS 394E. VISUALIZATION AND DATA ANALYSIS FOR SCIENTISTS AND ENGINEERS*
SDS 395: APPLIED MICROECONOMICS
SOC 384M SURVEY DESIGN & IMPLEMENTATION
STA 371G STATISTICS AND MODELING *
STA 380 10-MATH STATISTICS FOR APPLICS*
STA 380 7-FORECASTING*
STA 380 BAYESIAN ECONOMETRICS*
STA 380 FINANCIAL MATHEMATICS
STA 380: APPLIED MULTIVARIATE METHODS*

Suggested Minor Courses – 6 hours of minor elective courses required.

ASE 380P 1-ANALYTICAL METHODS I
ASE 387P 2-MISSION ANALYSIS AND DESIGN
AST 392D MATH METHODS IN ASTROPHYSICS
BIO 384K MATH/STAT MODELING IN BIOLOGY
BME 380J 5-BIOSTAT/STUDY DSGN/RSCH METH
C E 395R 4-METRICS
C E 395R 6-QUANTATV METHS FOR PROJ ANLY
ECE 390C STAT METH IN ENGR & QUAL ASSUR
EDP 380C 8-DATA ANALYSIS USING SAS
EDP 382K ADVANCED STATISTICAL MODELING
EDP 384 8-QUALITATIVE RESEARCH METHODS
GOV 385L ADVANCED STATISTICAL ANALYSIS
GOV 385L BAYESIAN STATISTICS
LIN 386M INTRODUCTION TO COMPUTATIONAL LINGUISTICS
MKT 397 4-MARKETING RESEARCH METHODS
P A 397G ANLY METHS FOR GLOBAL POL STDS
PGS 383Q STATS IN TRANSLATIONAL SCI
PHY 385L STATISTICAL MECHANICS
PHY 385S SMNR STAT PHY: STATISTCL MECHS ,
PSY 384M ADV STATISTICS: INFERENTIAL
PSY 394T ADVANCED APPLIED STATISTICS I
PSY 394T ADVANCED APPLIED STATISTICS II
S W 388R 1-RESEARCH METHODS II

S W 388R 3-RESEARCH METHODS III
SOC 385L SOCL STAT: LIN MOD/STRC EQ SYS
SOC 388L HISTORICAL AND COMPARATV METHS
SOC 388M INTEGRATING QUAL & QUANT METHS
STA 287 BUSN ANALYTICS & DECIS MODLNG

These courses overlap significantly with core courses and cannot be applied to the degree

B A 386T STATISTICS
BIO 384K APPL STAT FOR ECOLOGY AND EVOL
EDP 381P QUANT RSCH DESIGN AND ANALYSIS
EDP 380E 1-FUNDAMENTAL STATISTICS
EDP 382K 2-CORRELATN & REGRESSION METH
EDP 482K 1-EXPER DESIGN AND STAT INFER
ECE 381J. PROBABILITY AND STOCHASTIC PROCESSES I
M 385C, D THEORY OF PROBABILITY
ORI 390R 1-APPLIED PROBABILITY
ORI 390R 10-STAT DESIGN FOR EXPERIMENTS
ORI 390R 2-MATHEMATICAL STATISTICS
ORI 390R 6-REGRESSN & ANLY OF VARIANCE
PHR 390K EXP DSGN/RSCH METH IN PHR ADM
PSY 384K. ADVANCED STATISTICS: EXPERIMENTAL DESIGN
S W 388R 6-DATA ANALYSIS & COMPUTERS I
S W 388R 6-DATA ANALYSIS & COMPUTERS II
SOC 384L. SOCIAL STATISTICS: BASIC CONCEPTS AND METHODS
SDS 380C.STATISTICAL METHODS I
SDS 381. MATHEMATICAL METHODS FOR STATISTICS ANALYSIS
SDS 382. INTRODUCTION TO PROBABILITY AND STATISTICS
SDS 385: TOPIC 1: EXPERIMENTAL DESIGN
SDS 385: TOPIC 2: APPLIED REGRESSION
SDS 393C.: NUMERICAL ANALYSIS: LINEAR ALGEBRA