

STATISTICS DEPARTMENT - APPROVED SUPPORT ELECTIVES

All Statistics majors will take 8 units of approved electives outside the major. Every student will select a pair of courses in consultation with a major advisor. The major advisor must approve the student's selections. Students should meet with a major advisor before taking any possible approved electives.

Critically, **approved electives must belong to the same general field** (e.g., two from life sciences, or two from mathematics).

The lists below show courses that are commonly approved, grouped by general field. A meeting with your major advisor is still required to approve these electives, even if they are on the list. If you are interested in any elective courses not listed here, discuss this with your major advisor when you meet to choose your electives.

Biology & Life Sciences

BIO 302	Human Genetics	<i>Prereqs*</i> <i>BIO 111 or 161 or BOT 121</i>
BIO 303	Survey of Genetics	<i>BIO 111 or 161 or BOT 121</i>
BIO 305	Biology of Cancer	<i>GE Area B2</i>
BIO 308	Genetic Engineering Technology	<i>GE Area B; CHEM 110, 124, or 127</i>
BIO 351	Principles of Genetics	<i>BIO 161; CHEM 216 or CHEM 312</i>
BIO 419	Analytic Methods in Ecology	
BIO 426	Immunology	<i>BIO 351 or CHEM 373</i>
BIO 428	Hematology	<i>BIO 351 or BIO 302 or BIO 303 or CHEM 373</i>
BIO 435	Plant Physiology	<i>BOT 121 or BIO 162</i>
BIO 441	Bioinformatics Applications	<i>BIO 302, 303, or 351</i>
BIO 444	Population Ecology	<i>BIO 263 or NR 306</i>
KINE 312	Motor Learning and Control	
KINE 319	Introduction to Research Methods in Kinesiology	
NR 306	Natural Resource Ecology and Habitat Management	<i>GE Area B</i>
NR 315	Forest Mensuration	<i>BRAE 237 or 239; NR 215</i>
NR 317	The World of Spatial Data and Geographic Information Technology	<i>Jr standing, GE Area B</i>

* Prereqs listed here do not include calculus or intro statistics.

Business & Economics

BUS 319	Accounting Information Systems	BUS 214
BUS 320	Federal Income Taxation for Individuals	BUS 319
BUS 321	Intermediate Accounting I	BUS 214 and BUS 215
BUS 322	Intermediate Accounting II	BUS 321
BUS 342	Fundamentals of Corporate Finance	BUS 214
BUS 391	Information Systems	BUS 214
BUS 392	Business Application Development	BUS 391
BUS 393	Database Systems in Business	BUS 392
BUS 394	System Analysis and Design	BUS 391
BUS 431	Security Analysis and Portfolio Management	BUS 342, BUS 391, and ECON 339 or STAT 324
BUS 439	Fixed Income Securities Market	BUS 342 and BUS 391
BUS 444	Financial Engineering and Risk Management	BUS 442
ECON 303	Economics of Poverty, Discrimination and Immigration	Jr standing, GE Area A, and ECON 222
ECON 311	Intermediate Microeconomics I	ECON 221 and 222, or 201
ECON 312	Intermediate Microeconomics II	ECON 311
ECON 313	Intermediate Macroeconomics	ECON 311
ECON 337	Money, Banking, and Credit	ECON 221 and 222, or 201
ECON 339	Econometrics	ECON 221 and 222, or 201
ECON 406	Applied Forecasting	ECON 311, ECON 339
ECON 408	Mathematical Economics	ECON 312
ECON 409	Probability Models for Economic Decisions	ECON 312
ECON 431	Environmental Economics	ECON 312
ECON 440	Advanced Econometrics	ECON 339

Computer Science & Data Science

CSC/CPE 202	Fundamentals of Computer Science II	CSC 101
CSC/CPE 203	Fundamentals of Computer Science III	CSC 202
CSC 225	Introduction to Computer Organization	CSC 202
CSC 248	Discrete Structures	CSC 203
CSC 349	Design & Analysis of Algorithms	CSC 203, MATH 248
CSC 365	Introduction to Database Systems	CSC 248 or (CSC 203 and MATH 248)
CSC 369	Distributed Computing I	CSC 203
CSC 448	Bioinformatics Algorithms	CSC 349
CSC 466	Knowledge Discovery from Data	CSC 349
DATA 301	Introduction to Data Science	CPE 202
DATA 401	Data Science Process and Ethics (3 units)	CSC 365, CSC 466, DATA 301
DATA 402	Mathematical Foundations of Data Science (3 units)	concurrent with DATA 401
DATA 403	Data Science Projects Laboratory (1 unit)	concurrent with DATA 401
DATA 451/452	Data Science Capstone I/II	DATA 401
DATA 472	Data Science Seminar (1 unit)	DATA 301

Industrial Engineering & Technology

IME 301	Operations Research I	MATH 244
IME 305	Operations Research II	IME 301
IME 420	Simulation	IME 305, 326
IME 430	Quality Engineering	
ITP 303	Lean Six Sigma Green Belt	
ITP 371	Decision Making in Supply Chain, Services, and Project Management	

Journalism

JOUR 350	Data Journalism	JOUR 285
JOUR 390	Visual Communication for the Mass Media	JOUR 203

Mathematics

MATH 242	Differential Equations I	<i>MATH 206, 241</i>
MATH 304	Vector Analysis	<i>MATH 206, 241</i>
MATH 306	Linear Algebra II	<i>MATH 206, 241, 248</i>
MATH 335	Graph Theory	<i>MATH 248 or jr standing</i>
MATH 336	Combinatorial Mathematics	<i>MATH 248 or jr standing</i>
MATH 341	Theory of Numbers	<i>MATH 248</i>
MATH 344	Linear Analysis II	<i>MATH 206 & 242, or MATH 241 & 244</i>
MATH 406	Linear Algebra III	<i>MATH 306</i>
MATH 412	Introduction to Analysis I	<i>MATH 306</i>
MATH 413	Introduction to Analysis II	<i>MATH 412</i>
MATH 414	Introduction to Analysis III	<i>MATH 413</i>
MATH 437	Game Theory	<i>MATH 206, 248</i>
MATH 451	Numerical Analysis I	<i>MATH 206 & 242, or MATH 241 & 244</i>
MATH 452	Numerical Analysis II	<i>MATH 451</i>
MATH 453	Numerical Optimization	<i>MATH 306 and MATH 451</i>

Political Science

POLS 359	Research Design	
POLS 361	Quantitative Methodology	<i>POLS 359</i>
POLS 426	International Organizations and Law	<i>POLS 225 or POLS 229</i>
POLS 459	The Politics of Poverty	<i>Completion of D1</i>

Psychology

PSY 302	Behavior in Organizations	<i>PSY 201 or 202</i>
PSY 305	Personality	<i>PSY 201 or 202</i>
PSY 318	Psychology of Aging	<i>GE Area A, one GE Area D</i>
PSY 330	Behavioral Effects of Psychoactive Drugs	<i>GE Area E</i>
PSY 340	Biopsychology	<i>PSY 201 or 202</i>
PSY 357	Cognition	<i>PSY 201 or 202</i>
PSY 375	Forensic Psychology	<i>PSY 201 or 202</i>