Drexel University

Department of Biology

Major Sheet for Biological Sciences – Ecology/Evolutionary Biology/Paleobiology Concentration

Name _____ Student Number _____

Humanities and Social Sciences (33 credits)

__ ENGL 101 3 Exp Writing and Reading
__ ENGL 102 3 Personal Writing and Reading
__ ENGL 103 3 Analytical Writing and Reading
__ COM 230 3 Techniques of Speaking
__ COM 310 3 Technical Writing
__ PHIL 251 3 Ethics
__ UNIV 101 1 The Drexel Experience (Fall)
__ UNIV 101 2 The Drexel Experience (Winter)

Humanities and Social Science Electives (9 credits)

__ _____ ___ _____

__ _____ ___ _____

__ _____ ___ _____

Science, Technology & Human Affairs Elective (3 credits)

__ _____ ___ _____

Choose from:

ANTH 210	HIST 290	PHIL 341
HIST 280	HIST 292	PHIL 351
HIST 281	ENGL 300	PHIL 361
HIST 285	ENGL 302	PSCI 371
HIST 286	SOC 235	CJ 279
NFS 446	BIO 212	CJ 378

Mathematics and Statistics (18 credits)

__ MATH 101 4 Intro to Analysis I **OR** MATH 121
__ MATH 102 4 Intro to Analysis II **OR** MATH 122
__ MATH 239 4 Math for the Life Sci **OR** MATH 123
__ MATH 410 3 Scientific Data Analysis I
__ MATH 411 3 Scientific Data Analysis II

Physical Sciences (42 credits)

__ CHEM 101 3.5 General Chemistry I
__ CHEM 102 4.5 General Chemistry II
__ CHEM 103 5 General Chemistry III
__ CHEM 241 4 Organic Chemistry I
__ CHEM 242 4 Organic Chemistry II
__ CHEM 243 3 Organic Chemistry III
__ CHEM 244 3 Organic Chemistry I Lab
__ CHEM 245 3 Organic Chemistry II Lab
__ PHYS 152 4 Introductory Physics I
__ PHYS 153 4 Introductory Physics II
__ PHYS 154 4 Introductory Physics III

Co-op Placements

Biology Required Courses (36 credits)

__ BIO 122 4.5 Cells & Genetics
__ BIO 124 4.5 Evolution & Org Diversity
__ BIO 126 4.5 Physiology & Ecology
__ BIO 217 4 Evolution
__ BIO 218 4 Principles of Molecular Biology
__ BIO 219 2.5 Techniques in Molecular Biology
__ BIO 224 4 Form, Func & Evol of Vertebrates
__ BIO 225 2 Vertebrate Bio & Evol Lab
__ BIO 471 2 Seminar in Biological Science
__ BIO 472 2 Seminar in Biological Science
__ BIO 473 2 Seminar in Biological Science

A.) Eco/Evol Bio/Paleo Concentration Requirements

(4 courses, minimum 13 crs)

__ ENVS 270 4 History of Life on Earth

And choose three of the following courses

__ ENVS 230 3 General Ecology
__ ENVS 272 4 Physical Geology
__ ENVS 284 3 Phys & Population Ecology
__ ENVS 286 3 Comm & Ecosystem Ecology
__ ENVS 326 3 Molecular Ecology
__ ENVS 360 3 Evo-Devo
__ ENVS 375 3 Invertebrate Paleontology
__ ENVS 477 3 Vertebrate Paleontology

B.) Eco/Evo/Paleo Concentration Electives

(min. 4 courses, 12 crs)

Cell/Mol Bio/Genetics/Biochemistry Elective (1 course)

__ _____ ___ _____

Organismal/Physiology Elective (1 course)

__ _____ ___ _____

Ecology /Evol Bio/ Paleo Elective (2 courses)

__ _____ ___ _____

__ _____ ___ _____

C. Laboratory courses (minimum of 2 courses, 4 credits)

__ _____ ___ _____

__ _____ ___ _____

Free Electives (24 credits – minimum 8 courses)

__ _____ ___ _____

__ _____ ___ _____

__ _____ ___ _____

__ _____ _____

A minimum of 181 credits and 2.00 GPA are required for graduation

Drexel University

Department of Biology

Major Sheet for Biological Sciences – Ecology/Evolutionary Biology/Paleobiology Concentration

Name _____ Student Number _____

__ _____ __ _____

__ _____ __ _____

__ _____ __ _____

__ _____ _____

Eco/Evo/Paleo CONCENTRATION ELECTIVES

Cell/Mol Bio/Genetics/Biochem Electives
Pick one of the following

BIO 214 Principles of Cell Biology	3 credits
BIO 244 Genetics	3 credits
BIO 311 Metabolism	4 credits
BIO 331 Bioinfomatics I	3 credits
BIO 346 Stem Cell Research	3 credits
BIO 404 Struct & Func of Biomolecules	4 credits
BIO 413 Genomics	3 credits
BIO 444 Human Genetics	3 credits
BIO 449 Recombinant DNA Laboratory*	5 credits
ENVS 326 Molecular Ecology	3 credits
BIO 498 Independent Study (by permission of department)	

Organismal/Physiology Electives
Pick one of the following

BIO 201 Human Physiology I	4 credits
BIO 221 Microbiology+	3 credits
BIO 223 Parasitology	3 credits
BIO 254 Invertebrate Morph & Phys+	3 credits
BIO 256 Vertebrate Morph & Phys*	5 credits
BIO 260 Plant Biology I	4 credits
BIO 284 Biology of Stress	3 credits
BIO 310 Comparative Physiology	3 credits
BIO 322 Mycology	4.5 credits
BIO 368 Embryology	4 credits
BIO 386 Gross Anatomy+	3 credits
BIO 412 Biology of Aging	3 credits
BIO 420 Virology	3 credits
BIO 426 Immunology	3 credits
ENVS 392 Ichthyology & Herpetology	3 credits

Evolutionary Bio/Ecology Electives
Pick two of the following

ENVS 230 General Ecology	3 credits
ENVS 271 Dinosaurs and Their World	3 credits
ENVS 272 Physical Geology	4 credits
ENVS 284 Phys & Population Ecology	3 credits
ENVS 286 Comm & Ecosystem Ecology	3 credits
ENVS 322 Tropical Ecology	3 credits
ENVS 330 Aquatic Ecology	3 credits
ENVS 336 Terrestrial Ecology*	3 credits
ENVS 338 Biodiversity & Conservation	3 credits
ENVS 360 Evo-Devo	3 credits
ENVS 364 Animal Behavior	3 credits
ENVS 374 Sedimentary Environments	3 credits
ENVS 375 Invertebrate Paleontology	3 credits
ENVS 382 Field Botany: NJ Pine Barrens *	5 credits
ENVS 383 Ecology of NJ Pine Barrens*	5 credits
ENVS 390 Marine Ecology	3 credits
ENVS 410 Physiological Ecology	3 credits
ENVS 412 Biophysical Ecology	3 credits
ENVS 413 Adv Population Ecology	3 credits
ENVS 414 AdvCommunity Ecology	3 credits
ENVS 476 Paleobotany	3 credits
ENVS 477 Vertebrate Paleontology	3 credits
ENVS 520 Fld Mthds Paleoecology	3 credits
BIO XXXX Advanced Evolution	3 credits

Laboratory Electives
Pick two of the following

BIO 202 Human Physiology Laboratory	2 credits
BIO 215 Tech Cell Biology	2 credits
BIO 222 Microbiology Lab+	2 credits
BIO 255 Invert Morph & Phys Lab+	2 credits
BIO 256 Vertebrate Morph & Phys*	5 credits
BIO 306 Biochemistry Laboratory	2 credits
BIO 313 Comp Physiology Lab	2 credits
BIO 333 Bioinformatics Lab	2 credits
BIO 387 Gross Anatomy Lab+	2 credits
BIO 406 Comp Biochemistry Laboratory	2 credits
BIO 427 Immunology Lab	2 credits
BIO 449 Recombinant DNA Lab*	5 credits
BIO 497 Research (by permission of dept)	0.5 – 12 credits
ENVS 285 Population Ecology Lab	2 credits
ENVS 287 Community Ecology Lab	2 credits
ENVS 327 Molecular Ecology Lab	2 credits
ENVS 336 Terrestrial Ecology *	5 credits
ENVS 365 Animal Behavior Lab	2 credits

* Have both a lecture and laboratory component- 3 credits apply to lecture; 2 credits apply to lab
** Have both a lecture and laboratory component- 2 credits apply to lecture; 2 credits apply to lab
+ Lecture and lab must be taken together

Pre-requisites must be met before taking a course

A minimum of 181 credits and 2.00 GPA are required for graduation