

CONSERVATION BIOLOGY OPTION (Major: Natural Resources)

This guide is to aid students in selecting courses. Changes may be made but only in consultation with an advisor. Students must meet all program, Natural Resource Core Curriculum, and University general education requirements for graduation.

	FALL		SPRING	
Freshman Year	Tier 1 Nat Sci – CHEM 151 (Gen. Chem & Lab)	4	Tier 1 Nat Sci – CHEM 152 (Gen. Chem & Lab)	4
	ENGL 101 or 103H (Freshman Composition)	3	ENGL 102 or 104H (Freshman Composition)	3
	Tier 2 Nat Sci – MCB 181R/L (Life Sci. of Bio & Lab)	4	ECOL 182R/L (Life Sci. of Bio & Lab)	4
	Tier 1 Individuals and Societies Elect.	3	MATH 113, 124, or 125 (Calculus)	3/5
			Tier 1 Individuals and Societies Elect.	3
	TOTAL	14	TOTAL	17/19
Sophomore	Tier 2 Ind & Soc – ECON 201a (Intro Econ - Micro) or Econ 200	3	Tier 1 Traditions and Cultures Elect. ¹	3
	Tier 2 Arts or Humanities	3	Tier 1 Traditions and Cultures Elect	3
	MATH 160 or 263 (Statistics)	3	Skills course (see attached list)	3
	RNR 200 (Foundations in History & Policy)	3	RNR 321 (Natural Resources – Measurements)	3
	RNR 230 (Nat. Resources – Field Botany)	3	Technical Writing: A ED 422, SWES 408, or ENGL 308	3
	TOTAL	15	TOTAL	15
Junior Year	RNR 316 (Natural Resources – Ecology)	3	RNR 384 (Natural Resources – Management Practices)	3
	Natural Resources Management course (see attached list)	4	Environment course (see attached list)	3
	Organismal Biology course (see attached list)	4	Organismal Biology course (see attached list)	4
	ECOL 406R,L: Conservation Biology	4	PL S 312 or ECOL 320 (Genetics)	4
		TOTAL	15	TOTAL
Senior Year	Social Dimensions course (see attached list)	3	Capstone	3
	Technical Electives ²	6	Technical Electives (see attached lists)	6
	Free Electives	6	RNR 480 (Natural Resources – Policy & Law.)	3
			Skills course (see attached list)	3
		TOTAL	15	TOTAL

Bold = SNR Core

¹ One general education course must have the non-Western Civilization, Gender, Race, Class, Ethnicity designation.

² Technical electives can be selected from any of the lists on the reverse

Organismal Biology

RA M 382 -- Rangeland Plant Communities (3)
ECOL 303 -- Vertebrate Diversity (4)
ECOL 470 -- Plant Diversity and Evolution (4)
ECOL 472 -- Systematic Botany (4)
ECOL 475 -- Freshwater and Marine Algae (4)
ECOL 480 -- Invertebrate Zoology (4)
ECOL 482 -- Ichthyology (4)
ECOL 483 -- Herpetology (4)
ECOL 484 -- Ornithology (4)
ECOL 485 -- Mammalogy (4)
ENTO 405 -- Aquatic Entomology (4)
ENTO 415R -- Insect Biology (3)
PL S 360 -- Principles of Plant Physiology (3)

Natural Resource Management

RA M 436A -- Grazing Ecol and Mangmnt (3)
RA M 446 -- Veg Management--Wildlands (4)
RA M 487 -- Range Management Planning (2)
WFSC 444 -- Mammalian Management (4)
WFSC 446 -- Avian Management (4)
WFSC 455R -- Fishery Management (3)
WS M 462 -- Watershed Management (3)

Environment

WS M 460 -- Watershed Hydrology (3)
WS M 467 -- Adv Watershed Hydrology (3)
WS M 468 -- Wildland Water Quality (3)
ATMO 300A -- Gen Meteorology-Physical (3)
GEOG 430 -- The Climate System (3)
GEOG 431 -- Global and Reg Climatology (3)
GEOS 251 -- Physical Geology (4)
GEOS 450 -- Geomorphology (4)
GEOS 478 -- Global Change (3)
GEOS 482 -- Paleoclimatology (3)
HWR 250 -- Principles of Hydrology (3)
HWR 450A/450B -- Envirol Hydrology (3 + 3)
SWES 200 -- Soils (3)
SWES 201 -- Soils Laboratory (1)
SWES 316 -- Soil Fertility and Plant Nutrition (3)
SWES 438 -- Environ., Soil and Water Chem (3)

Social Dimensions

RNR 496P -- Controlling Private Development
Near Conservation Areas

AREC 217 -- Resources and Envirol Econ (3)
AIS 418 -- Southwest Land and Society (3)
ANTH 202 -- Anthro in a Global Context (3)
ANTH 307 -- Ecological Anthropology (3)
ANTH 313 -- Anthropology and Public Policy (3)
ANTH 418 -- Southwest Land and Society (3)
ANTH 469 -- Ethnobotany (3)
GEOG 256 -- Sustainable Cities and Soc (3)
GEOG 461 -- Enviro and Resource Geog (3)
HIST 355 -- U.S. Environmental History (3)
HIST 356 -- Global Environmental History (3)
PHIL 323 -- Environmental Ethics (3)
PSYC 374 -- Environmental Psychology (3)
PA 481 -- Environmental Policy (3)
SOC 450 -- Social Inequality (3)

Skills courses

COMM 119 -- Public Speaking (3)
RA M 456A -- Rangeland Inventory &
Monitoring (4)
RNR 403 -- Applications of GIS (3)
RNR 417 -- GIS for Natural Resources (3)
RNR 419 -- Cartographic Modeling for Nat
Resources (3)
RNR 420 -- Advanced GIS (3)
RNR 422 -- Resource Mapping (3)
RNR 437 -- Modeling Natural Systems (3)
RNR 489A -- Adv. Enviro Interpretation (2)
RNR 489B -- Adv. Envirol Interpretation (2)
CHEM 241A/243A -- Organic Chemistry (4)
CHEM 241B/243B -- Organic Chemistry (4)
ECOL 401 -- Teaching Biology (2)
ECOL 450 -- Marine Discovery (4)
GEOG 330 -- Intro to Remote Sensing (3)
GEOS 464 -- Intro to Dendrochronology (4)
REM 490 -- Remote Sensing for Study of Planet
Earth (3)
SWES 453 -- Remote Sensing of the Enviro (3)
GEOG 401A/401B -- Intro to Planning (3 + 3)
A ED 422 -- Communicating Knowledge in
Agriculture and the Life Sciences
SWES 408 -- Scientific Writing for Environ.,
Agricultural and Life Sciences (3)
ENGL 308 -- Technical Writing (3)

Other Electives

RNR 438 -- Fire Ecology (3)
WFSC 441 -- Limnology (4)
WS M 408 -- Wildland Fire Management (3)
AREC 375 -- Econ of Land and Water in the
American West (3)
AREC 377 -- Econ of Enviro Res Cons (3)
ECOL 335: Evolution
ECOL 380 -- Math Models In Biology (3)
ECOL 380L -- Math Models Lab (1)
ECOL 426 -- Population Genetics (3)
GEOG 301 -- Intro to Regional Planning (3)
GEOG 303 -- Field Study in Envirol Geog (3)
GEOS 476A -- Analysis of Biol Diversif (3)
HWR 203 -- Arizona Water Issues (3)
HWR 476 -- Enviro Law and Economics (3)
SWES 461 -- Soil and Water Conservation (3)
SWES 474 -- Aquatic Plants and the Enviro (4)
V SC 403R -- Biology of Animal Parasites (3)
V SC 449 -- Diseases of Wildlife (3)