

# PROFESSIONAL SCIENCE MASTER'S IN NATURAL SCIENCES – ZOO, AQUARIUM, AND ANIMAL SHELTER MANAGEMENT SPECIALIZATION

## Requirements Effective Fall 2023

Code	Title	Credits
NSCI 579/VS 579	Applied Animal Behavior	4
NSCI 601	PSM Ethics for Animal Professionals	1
NSCI 611	Leadership in Animal Organizations	3
NSCI 621	Workplace Wellness - Animal Organizations	3
NSCI 631	Non-Profit Marketing and Community Relations	3
NSCI 641	Fiscal Management for Animal Welfare Leaders	2
NSCI 651	Non-Profit Fund Development and Grant Writing	3
NSCI 688A	PSM Capstone: Preparation	2
NSCI 688B	PSM Capstone: Proposal Writing	2
NSCI 688C	PSM Capstone: Project	1
NSCI 688D	PSM Capstone: Support for Deliverable and Job Search	2
NSCI 688E	PSM Capstone: Completion	3
NSCI 693A	Graduate Seminar: Zoo, Aquarium, and Animal Shelter Management	4
Select one course from the following:		2-3
ANEQ 322	Pet Nutrition	
ANEQ 323	Zoo Nutrition	
ANEQ 522	Animal Metabolism	
Professional skills electives (select from the list below with approval of advisor)		8-9
<b>Program Total Credits:</b>		<b>43-45</b>

A minimum of 43 credits are required to complete this program.

## Professional Skills Electives

Code	Title	Credits
<b>Aquarium</b>		
BZ 415	Marine Biology	4
BZ 515	Physiological Ecology of Marine Vertebrates	3
FW 300	Biology and Diversity of Fishes	2
FW 405	Fish Physiology	3
FW 540	Fisheries Ecology	3
<b>Behavior</b>		
ANEQ 315	Equine Behavior	2

ANTH 370	Primates	3
ANTH 375	Evolution of Primate Behavior	3
BMS 325	Cellular Neurobiology	3
BMS 505/NB 505	Neuronal Circuits, Systems and Behavior	3
BZ 430	Animal Behavior and Conservation	3
BZ 433	Behavioral Genetics	3
BZ 479/VS 479	Biology and Behavior of Dogs	3
BZ 505	Cognitive Ecology	3
BZ 535	Behavioral and Cognitive Ecology	3
PSY 600E	Advanced Psychology: Animal Learning	3

### Breeding/Reproduction

ANEQ 310	Animal Reproduction	3
ANEQ 312	Animal Ultrasonography	2
ANEQ 328	Foundations in Animal Genetics	3
ANEQ 330	Principles of Animal Breeding	3
ANEQ 334	Principles of Equine Genetics	3
BMS 521	Comparative Reproductive Physiology	3
BMS 640	Reproductive Physiology and Endocrinology	4
BMS 642	Research Techniques for Gametes and Embryos	1

### Comparative Physiology/Taxonomy

BZ 329A	Herpetology: Lecture	3
BZ 330A	Mammalogy: Lecture	3
BZ 335	Ornithology	3
BZ 401	Comparative Animal Physiology	3
FW 300	Biology and Diversity of Fishes	2

### Companion Animal

ANEQ 322	Pet Nutrition	2
BZ 479/VS 479	Biology and Behavior of Dogs	3
SOWK 550	Animal Assisted Therapy and Human-Animal Bond	3

### Education and Human Dimensions

EDRM 707	Quantitative Data Collection Methods/Analysis	3
EDRM 708	Narrative Inquiry	3
EDRM 711	Ethnographic Research	3
NRRT 505	Environmental Education History and Theory	3
NRRT 506	Methods in Environmental Education Research	3
NRRT 507	Environmental Education Planning	3
NRRT 508	Current Issues in Environmental Education	3

### Habitat Design

HORT 331	Landscape Design	2
LAND 365	Landscape Contract Drawing and Specifications	3
LAND 366	Landscape Design Expression	4

### Nutrition

ANEQ 322	Pet Nutrition	2
ANEQ 323	Zoo Nutrition	2
ANEQ 345	Principles of Nutrition: Equine Applications	3
ANEQ 720	Nutritional Energetics	3

ANEQ 725	Rumen Metabolism	3
NR 367	Concepts in Vertebrate Nutrition	3
<b>Management</b>		
BUS 500	Foundations for Business Impact	2
BUS 614	Accounting Concepts	2
BUS 615	Managerial Accounting	2
FIN 305	Fundamentals of Finance	3
MKT 370	Digital Marketing	3
NR 401	Techniques in Public Relations	2
NR 501	Leadership and Public Communications	3
NR 535	Action for Sustainable Behavior	3
NR 555	Preparation of Grant Proposals	2
NRRT 460	Tourism Event and Conference Planning	3
NRRT 471	Starting and Managing Tourism Enterprise	3