

**2020-21 Natural Resources Management Course Plan**

**College of Forest Resources & Environmental Science-Michigan Tech**

Semester	Course 1	Course 2	Course 3	Course 4	Course 5	Course 6	Course 7	Total Credits (128 + 3 co-curriculars)
<b>First Year Fall</b>	FW2010 Vegetation of North America (4)	FW2051 Field Techniques (2)	BL1400 Principles of Biology (3)	BL1410 Principles of Biology Lab (1) Co-req: BL1400	MA1032 Precalculus (4) or MA1135 Calculus for Life Sciences(4)	UN1015 Composition (3)		17
<b>First Year Spring</b>	EC2001 Principles of Economics (3)	CH1150 University Chemistry Lecture (3) Coreq: MA1031 or MA1032 or MA1135	CH1151 University Chemistry Lab (1) Coreq: CH1150	FW1050 Natural Resources Professional (2)	HASS Gen Ed Requirement (3) See list	UN1025 Global Issues (3)		15
<b>Second Year Fall</b>	FW2030 Natural Resource Conservation (2)	FW3020 Forest Ecology (3) Coreq: FW2010 and FW2051	FW3330 Soil Science (4) Prereq: CH1150 & CH1151	MA2720 Statistical Methods (4) Prereq: MA1030 or MA1032	Critical and Creative Thinking Gen Ed (3) Requirement See list	Co-curricular (1) See list		17
<b>Second Year Spring</b>	FW3110 Natural Resource Policy (3)	FW3200 Biometrics and Data Analysis (4) Prereq: FW2051 and MA2720	FW3540 Introduction to Geographic Information Systems (4) Coreq: MA2720	Social Responsibility and Ethical Reasoning Gen Ed Requirement (3) See list	HASS Gen Ed Requirement (3) See list			17
<b>Third Year Fall (Courses are taken as a block)</b>	FW3012 Survey of Silviculture (2) Prereq: FW2010 and FW2051	FW3640 Aquatic Systems (2) OR FW3800 Insect Ecology (2)	FW3170 Land Measurements/GPS (1) Co-req: FW3190 Prereq: FW3540	FW3190 Multi-Resource Assessment (3) Prereq: FW2051, FW3020, FW3200 & MA2720	FW3600 Wildlife Habitat (3)	FW3840 Forest Health (3)	FW3180 Geomorphology, Landscapes& Ecosystems (2)	16
<b>Third Year Spring</b>	FW3510 Outdoor Recreation and Tourism (3)	FW4710 Environmental Biogeochemistry (3)	FW4380 Landscape Ecology and Planning (3)	Business Directed Elective (3) See list	HASS Gen Ed Requirement (3) See list	Co-curricular (1) See list		16
<b>Fourth Year Fall</b>	FW4800 Communication for Natural Resources (2) Prereq: FW3190	FW4811 Integrated Resources Data Collection (2) Prereq: FW3190	FW4180 Ethics of Conservation and Sustainability (2)	FW4150 Forest Resource Management (3) Prereq: FW3010 or FW3012	Natural Resource Directed Elective (3)See list	Business Directed Elective (3) See list	Free elective (3)	18
<b>Fourth Year Spring</b>	FW4830 Integrated Natural Resource Assessment (2) Prereq: FW3190	Social Dimensions Directed Elective (3) See list	Natural Resource Directed Elective (3) See list	Natural Resource Directed Elective (3) See list	HASS Gen Ed Requirement (3) See list	Co-curricular (1) See list		15

**Natural Resource Electives (Choose 9 credits)**

Course #	Course Name	Credits	Semester Offered	Prerequisite
BL2160	Botany	4 cr	Spring	
BL2170	Zoology	4 cr	Fall	
BL4447	Stream Ecology and Fish Biology	4 cr	Summer-odd yrs	BL1400 & BL1410
FW1035	Wood Anatomy and Properties	4 cr	Spring	
FW3320	Forest Genetics and Genomics	3 cr	Spring	
FW3410	Conservation Biology	3 cr	Spring	
FW3610	Ornithology	4 cr	Spring	BL1400 & BL1410
FW4120	Tree Physiology	3 cr	Spring	
FW4140	Stand & Forest Modeling	2 cr	Spring	(FW3010 OR FW3012)
FW4220	Wetlands	4 cr	Fall	
FW4240	Mammalogy	4 cr	Fall	BL1400 & BL1410
FW4300	Intro to Wildland Fire	3 cr	Spring	
FW4370	Forest and Landscape Hydrology	3 cr	Spring	
FW4540	Remote Sensing of the Environment	3 cr	Fall	
FW4545	Map Design with GIS	2 cr	Spring-even yrs	FW3540 or FW5550
FW4610	Wildlife Ecology	3 cr	Fall	BL3400 or FW3020
FW4620	Herpetology	3 cr	Spring-odd yrs	BL1400 & BL1410
FW5115	Restoration Ecology	3 cr	Spring-even yrs	
GE2100	Environmental Geology	3 cr	Spring	
GE4150	Natural Hazards	3 cr	Fall	GE2000 or GE2100

**Social Dimensions Electives (Choose 3-4 credits)**

Course #	Course Name	Credits	Semester Offered	Prerequisite
SS3313	Sustainability Science, Policy & Assessment	3 cr	Spring-odd yrs	UN1015 & UN1025
SS3315	Population and Environment	3 cr	Spring-odd yrs	(MA1030 & MA1031 OR MA1032) AND (UN1015 & UN1025)
SS3520	U.S. Environmental History	3 cr	Fall	UN1015 & UN1025
SS3630	Environmental Policy and Politics	3 cr	Fall-odd yrs	UN1015 & UN1025
SS/FW3760	Human Dimensions of Natural Resources	3 cr	Fall	UN1015 & UN1025
SS3800	Energy Technology and Policy	3 cr	Spring	UN1015 & UN1025
SS4010	Statistics for the Social Sciences	3 cr	Fall-odd yrs	MA2720
SS4200	Environmental Anthropology	3 cr	Fall	SS2100, UN1015 & UN1025

**Business Electives (Choose 6 credits)**

Course #	Course Name	Credits	Semester Offered	Prerequisite
ACC2000	Accounting Principles 1	3 cr	Fall, Spring, Summer	
BUS2300	Quantitative Problem Solving	3 cr	Fall, Spring, Summer	MA2720
EC3400	Economic Decision Analysis	3 cr	Fall, Spring, Summer	UN1015 & UN1025
EC4500	Public Sector Economics	3 cr	Fall	EC2001, UN1015 & UN1025
EC4640	Natural Resource Economics	3 cr	Fall	EC2001, UN1015 & UN1025
EC4650	Environmental Economics	3 cr	Spring	EC2001, UN1015 & UN1025
MGT3000	Organizational Behavior	3 cr	Fall, Spring, Summer	
MKT3000	Principles of Marketing	3 cr	Fall, Spring, Summer	