

# Natural Resource Management and Sustainability (Geospatial Information Science) - Fall 2023 to Spring 2025

## Fall Entry - Fall 2023 to Fall 2024

Fall 1		Hours
FANR 3060 - Soils & Hydrology		4
prereq Chemistry I		
S:	04 MWF 06-07 W; 08-09 W; 73-74 R; 75-76 R	
F:	04 MWF 06-07 W; 08-09 W; 73-74 R; 75-76 R	
FANR 3300 and 3400 - Economics & Society		4
3300+D - first half of term; 3400+D - last half		
FANR 3300 - Economics		2
S:	73 TR 05-06 F	
F:	03 MW 02-03 F	
FANR 3400 - Society		2
S:	73 TR 05-06 F	
F:	03 MW 02-03 F	
GIS Required Option or Elective		3
F:	VR	
GIS Required Option or Elective		3
F:	VR	
<b>Total Hours:</b>		<b>14</b>

Spring 1		Hours
FORS 4050 - Field Measurements		4
prereq Enrollment in the professional program; pre or coreq: Statistics		
S:	03 MW 06-09 M, 03-04 F	
FANR 3200W - Ecology		4
prereq Biology II		
S:	71 TR 75-76 R; 75-76 T	
F:	03 MWF 06-09 M; 06-09 W	
FANR 3800 - Spatial Analysis		3
pre or coreq FANR 3000, FORS 4050, PRTM 4700, or WILD 4110		
S:	05 MW 06-09 W; 74-77 R	
F:	01 MW 06-09 W; 75-77 R	
GIS Required Option or Elective		4
S:	VR	
<b>Total Hours:</b>		<b>15</b>

Fall 2		Hours
GEOG 4590 - Programming for GIS		3
prereq GEOG 4370		
F:	05-06 M 07-08 M	
FANR 4501 or FANR 4960/4970/4980R - Senior Project I or		1
Choose between Senior Project I or Senior Thesis Research. Students taking Senior Thesis may save research hours until their final term, if desired, or may take 1-3 hours in this term, if desired.		
FANR 4501 - Senior Project I		1
pre or coreq FANR 3300, FORS 4700, FISH 4300, or WILD 4100		
S:	71 T	
F:	01 F	
GIS Required Option or Elective		3
F:	VR	
GIS Required Option or Elective		3
F:	VR	
GIS Required Option or Elective		4
F:	VR	
GIS Remote-Sensing Option		3
F:	VR	
<b>Total Hours:</b>		<b>17</b>

Spring 2		Hours
FANR 5620 - GIS Applications for Natural Resources		3
prereq FANR 3800+L		
S:	73 TR 73-74 TR	
FANR 5630 - Statistical Software for Natl Res Mgmt		3
prereq Statistics		
S:	06-08 M	
FANR 3700 - Natural Resources Data Processing		3
prereq Statistics		
S:	05 MWF	
FANR 4502S or FANR 4990R - Senior Project II or Thesis		3
Choose between Senior Project II or Senior Thesis. Students taking Senior Thesis must take at least 1 hour of 4990R, plus an additional three hours from 4960R, 4970R, 4980R, and/or 4990R across all terms		
FANR 4502S - Senior Project II		3
prereq FANR 4501		
S:	VR	
F:	VR	
FANR 4990R - Senior Thesis		4
prereq final semester; apply on Warnell website		
S:	VR	
F:	VR	
FANR 4800W - Policy		2
prereq Economics and senior standing		
S:	03 MW	
<b>Total Hours:</b>		<b>14</b>

01	02	03	04	05	06	07	08	09	10	11	12	13
8:00-8:50a	9:10-10:00a	10:20-11:10a	11:30a-12:20p	12:40-1:30p	1:50-2:40p	3:00-3:50p	4:10-5:00p	5:20-6:10p	6:30-7:20p	6:50-7:40p	7:55-8:45p	9:00-9:50p
71	72	73	74	75	76	77	78	79	80	VR	<b>CLASS PERIODS</b>	
8:00-9:15a	9:35-10:50a	11:10a-12:25p	12:45-2:00p	2:20-3:35p	3:55-5:10p	5:30-6:45p	6:30-7:45p	8:00-9:15p	9:30-10:45p	various times		

TERMS	F	S	SU
	fall	spring	summer

# Natural Resource Management and Sustainability (Geospatial Information Science) - Fall 2023 to Spring 2025

Fall Entry - Fall 2023 to Fall 2024

Pre-requisites and class times for non-Warnell courses are subject to change without notice.

WARNING: Do not take GEOG 4370, which repeats material in FANR 3800 & 3800L.

GIS Certificate: students with a 3.0 or higher GPA in the following can receive the GIS certificate: FANR 3800 & 3800L, 5620, GEOG 4590, and GEOG 4350 or 4460 (remote-sensing option)

Major hours needed to graduate: 60

Elective Options		Hours
<b>Remote-Sensing Option</b>		
Choose 1 course (3+ hrs); GEOG 4460 is also approved but not offered consistently		
GEOG 4350 - Remote Sensing of Environment		3
prereq	GEOG 4330	
F:	72-73 T      72-73 R	
GEOG 4460 - Field Methods Remote Sensing		3
prereq	GEOG 4350	
F:	06-08 M	
<b>GIS Geospatial Electives</b>		
<b>10 hours required</b>		
FANR 5640 - Unmanned Aerial Sys in NR		3
prereq	FANR 3800+L	
S:	02 WF      06-07 M	
FORS 5650 - Aerial Photos		3
S:	01 MW      01 F	
FORS 5670 - Forestry Information Systems		3
even years F:	73 TR	
ATSC 4140 - Satellite Meteor and Climatol		3
prereq	GEOG 1111 or 1112	
F:	76 TR	
CRSS 4050 - Nut Energy Eff GIS		4
pre or coreq	CRSS 3030	
	VR	
EDES 4280E - Environmental Design Uses GIS		3
SU:	VR	
GEOG 4330 - Ap Image Interp Lab		3
F:	02 MW      02-03 F	
GEOG 4410 - Cartog Visualization Methods		3
S:	75 T      76 T	
GEOG 4450 - Dig Image Analysis		3
prereq	GEOG 4350	
S:	72 TR	
GEOG 4460 - Field Methods Remote Sensing		3
prereq	GEOG 4350	
F:	06-08 M	
GEOG 4470 - Geospat Analy Lab		3
prereq	Statistics and GEOG 4370	
S:	06 MW      07 MW	
<b>GIS Natural Resources Electives</b>		
<b>10 hours required</b>		
FISH 4200 - Aquatic Biology		4
prereq	Biology II	
F:	74 TR      75-76 R	
FISH 4300 - EBF		4
prereq	Biology II	
S:	04 MWF      05-08 F	
FISH 4310 - Freshwater Ecosystems		4
prereq	Ecology	
F:	02 MWF      06-08 M	
FISH 4500 - Fish Physiology		4
prereq	FISH/WILD 4300	

01	02	03	04	05	06	07	08	09	10	11	12	13
8:00-8:50a	9:10-10:00a	10:20-11:10a	11:30a-12:20p	12:40-1:30p	1:50-2:40p	3:00-3:50p	4:10-5:00p	5:20-6:10p	6:30-7:20p	6:50-7:40p	7:55-8:45p	9:00-9:50p
71	72	73	74	75	76	77	78	79	80	VR	<b>CLASS PERIODS</b>	
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TERMS	F	S	SU
	fall	spring	summer

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## Fall Entry - Fall 2023 to Fall 2024

F:	75 TR	06-09 F	
	FISH 4550 - Sustainable Aquaculture		4
prereq	Biology II		
S:	74 TR	75-76 R	
	FISH 4600 - Ecotox		3
prereq	Biology II and Chemistry II		
F:	07-09 M		
	FISH 4650L - Fisheries Field Camp		4
prereq	Apply through StudyAway portal		
odd years SU:	May: VR		
	FORS 3010 - Dendro		3
prereq	Biology II		
S:	72 TR	06-09 W; 74-76 R; 74-76 T	
F:	73 TR	06-09 W; 74-76 R; 74-76 T	
	FORS 4010 - Silviculture		4
prereq	(FANR 3000, FORS 4050, or WILD 4110) and Ecology		
F:	03 MWF	06-09 W	
	FORS 4210 - Forest Health		3
prereq	Biology II		
S:	05 MW, 05-06 F		
	FORS 4610 - Mensuration		4
prereq	FANR 3000 or FORS 4050		
F:	72 TR	75-77 R	
	FORS 4620 - Timber Management		4
prereq	FORS 4610		
S:	03-04 F, 04 MW		
	FORS 4700 - Forest Econ		3
F:	05 MW	05-06 F	
	PRTM 3310 - Humans Nature Environ Aware		3
prereq	Enrollment in Warnell prof program		
F:	77-79 TR		
	PRTM 4400 - Park Management		3
prereq	Enrollment in Prof Program and (FANR 1100, 3400, or PRTM 3310)		
S:	73 TR		
	PRTM 5410 - Stewardship & Protection		3
prereq	FANR 3400 or PRTM 3310		
S:	77-79 T	VR	
	PRTM 5800S - Environmental Interpretation		3
F:	73 TR		
	PRTM 5900 - Ecotourism and Sust Dev		3
prereq	FANR 3400 or PRTM 3310		
F:	72 TR		
	WASR 4110 - Forest Hydrology		4
prereq	ENVE 4435 or FANR 3060 or GEOL 4220 or GEOG 4030 or ECOL 3520 or CRSS 3050 or CRSS 4600		
S:	01 MWF	75-76 T	
	WILD 3000W - Intro to Fish and Wildlife		2
prereq	Biology II		
F:	02 MW		
	WILD 3580 - Vertebrate Natural History		4
prereq	Biology II, enrollment in prof program		
S:	02 MWF	06-08 W; 74-76 R; 74-76 T	
	WILD 4040 - Herpetology		4

prereq	Biology II and permission of instructor		
S:	72 TR	75-76 T	
	WILD 4050 - Mammalogy		4
prereq	WILD 3580+L		
F:	04 MWF	74-76 T	
	WILD 4060 - Ornithology		4
prereq	Biology II		
S:	04 MWF	01-03 F	
	WILD 4100 - Wildlife Habitat		3
pre or coreq	Ecology & (WILD 1100E or 3000W)		
F:	05 MW	06-08 F	
	WILD 4400 - Physiology & Nutrition		3
pre or coreq	WILD(FISH) 3000W or WILD 1100E		
odd years S:	72 TR		
	WILD 4500 - Non-game & Endangered Species		3
prereq	(WILD 3000W or 1100E) and (WILD 4110 or 4700) and Ecology		
odd years F:	72 TR		
	WILD 5100 - Wildlife Diseases		3
S:	73 TR		
	WILD 5700 - Pop Dy		3
prereq	Precalculus and Ecology		
F:	02 MW	06-08 W	
	WILD 4700 - Wildlife Techniques		3
prereq	Biology I & II and enrollment in Warnell prof program		
F:	04 MW	06-09 M; 74-77 R; 74-77 T	
	ECOL 4050 - Ichthyology		4
prereq	BIOL 1108		
F:	73 TR	03-05 W; 06-08 W	



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