

# Natural Resource Management and Sustainability (Geospatial Information Science) - Fall 2025 and later

Spring Entry - Spring 2026 and later

Spring 1		Hours
<b>FORS 4050 - Field Measurements</b>		<b>4</b>
prereq Enrollment in the professional program; pre or coreq: Statistics		
S:	03 MW 06-09 M, 03-04 F	
<b>FANR 3200W - Ecology</b>		<b>4</b>
prereq Biology II		
S:	71 TR 75-76 R; 75-76 T	
F:	03 MWF 06-09 M; 06-09 W	
<b>FANR 3700 - Natural Resources Data Processing</b>		<b>3</b>
prereq Statistics		
S:	05 MWF	
<b>GIS Required Option or Elective</b>		<b>3</b>
S:	VR	
<b>Total Hours:</b>		<b>14</b>



Fall 1		Hours
<b>FANR 3060 - Soils &amp; Hydrology</b>		<b>4</b>
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	
<b>FANR 3300 and 3400 - Economics &amp; Society</b>		<b>4</b>
3300+D - first half of term; 3400+D - last half		
<b>FANR 3300 - Economics</b>		<b>2</b>
S:	73 TR 05-06 F	
F:	03 MW 02-03 F	
<b>FANR 3400 - Society</b>		<b>2</b>
S:	73 TR 05-06 F	
F:	03 MW 02-03 F	
<b>FANR 3800 - Spatial Analysis</b>		<b>3</b>
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	
<b>GIS Required Option or Elective</b>		<b>3</b>
F:	VR	
<b>GIS Remote-Sensing Option</b>		<b>3</b>
F:	VR	
<b>Total Hours:</b>		<b>17</b>



Spring 2		Hours
<b>FANR 5620 - GIS Applications for Natural Resources</b>		<b>3</b>
prereq FANR 3800+L		
S:	73 TR 73-74 TR	
<b>FANR 5630 - Statistical Software for Natl Res Mgmt</b>		<b>3</b>
prereq Statistics		
S:	06-08 M	
<b>FANR 4501 or FANR 4960/4970/4980R - Senior Project I or</b>		<b>1</b>
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.		
<b>FANR 4501 - Senior Project I</b>		<b>1</b>
pre or coreq FANR 3300, FORS 4700, FISH 4300, or WILD 4100		
S:	71 T	
F:	01 F	
<b>FANR 4800W - Policy</b>		<b>2</b>
prereq Economics and senior standing		
S:	03 MW	
<b>GIS Required Option or Elective</b>		<b>3</b>
S:	VR	
<b>GIS Required Option or Elective</b>		<b>3</b>
S:	VR	
<b>Total Hours:</b>		<b>15</b>



Fall 2		Hours
<b>GEOG 4590 - Programming for GIS</b>		<b>3</b>
prereq GEOG 4370		
F:	05-06 M 07-08 M	
<b>FANR 4502S or FANR 4990R - Senior Project II or Thesis</b>		<b>3</b>
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		
<b>FANR 4502S - Senior Project II</b>		<b>3</b>
prereq FANR 4501		
S:	VR	
F:	VR	
<b>FANR 4990R - Senior Thesis</b>		<b>4</b>
prereq final semester; apply on Warnell website		
S:	VR	
F:	VR	
<b>GIS Required Option or Elective</b>		<b>4</b>
F:	VR	
<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		

Friday, February 7, 2025

TERMS	F	S	SU
	fall	spring	summer

# Natural Resource Management and Sustainability (Geospatial Information Science) - Fall 2025 and later

Spring Entry - Spring 2026 and later

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 5620 - GIS Applications		3
prereq	FANR 3800+L	
S:	73 TR      73-74 TR	
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	
WASR 4500 - Quantitative Methods/Hydrol.		3
prereq	ENVE 4435 or FANR 3060 or WASR 4110 or GEOL 4220 or GEOG 4030 or CRSS 4600	
F:	72 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	
ECOL 4450 - Spatial Ecology		-
S:	VR      VR	
EDES 4280E - Environmental Design Uses GIS		3
SU:	VR	
ENGR 4930 - Small Satellites		3
S:	77-78 R	
GEOG 4330 - Ap Image Interp Lab		3
F:	02 MW      02-03 F	
GEOG 4370 - Geographic Info Science Lab		3
prereq	Sophomore standing	
S:	02 MW      03-04 M; 03-04 W	
F:	03 WF      04-05 F; 04-05 W	
GEOG 4370E - Introduction to GIS		3
SU:	1st session: VR	
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	

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F: 06-08 M		
prereq	GEOG 4470 - Geospat Analy Lab	3
	Statistics and GEOG 4370	
S: 06 MW	07 MW	
prereq	GEOG 4571 - GIS for Health and Environment	3
S: 05-06 M	07-08 M	
	GEOG 4591 - Introduction to Geo AI	-
F: 73 TR		
prereq	GEOG 4592 - Advanced Geo AI	3
S: 76 TR		
<b>GIS Natural Resources Electives</b>		
<b>10 hours required</b>		
prereq	FANR 4271 - People Planet and Profit	1-9
	Apply through the StudyAway portal	
SU: VR		
prereq	FISH 4200 - Aquatic Biology	4
	Biology II	
F: 74 TR	75-76 R	
prereq	FISH 4310 - Freshwater Ecosystems	4
	Ecology	
F: 02 MWF	06-08 M	
prereq	FORS 3010 - Dendro	3
	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	
prereq	FORS 4270 - Smokies	3
	Apply through StudyAway portal	
F: VR		
prereq	FORS 4700 - Forest Econ	3
F: 05 MW	05-06 F	
prereq	PRTM 3310 - Humans Nature Environ Aware	3
	Enrollment in Warnell prof program	
F: 77-79 TR		
prereq	PRTM 4400 - Park Management	3
	Enrollment in Prof Program and (FANR 1100, 3400, or PRTM 3310)	
S: 73 TR		
prereq	PRTM 5410 - Stewardship & Protection	3
	FANR 3400 or PRTM 3310	
S: 77-79 T	VR	
prereq	WASR 3900 - WASR Internship	3
	apply before internship through Warnell site	
S: VR		
F: VR		
prereq	WASR 4110 - Forest Hydrology	4
	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	
prereq	WILD 3000W - Intro to Fish and Wildlife	2
	Biology II	
F: 02 MW		
prereq	WILD 3700W - Animal Behavior	3
	Biology II	
F: 03 MWF		

pre or coreq	WILD 4100 - Wildlife Habitat Ecology & (WILD 1100E or 3000W)	3
	F: 05 MW	06-08 F
pre or coreq	WILD 4400 - Physiology & Nutrition	3
	WILD(FISH) 3000W or WILD 1100E	
odd years	S: 72 TR	
pre req	WILD 5700 - Pop Dy	3
	Precalculus and Ecology	
	F: 02 MW	06-08 W



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