

DEPARTMENT OF LAND RESOURCES

Mr. Adam Black, Department Chair

Professor: R. Gazal

Associate Professors: A. Black, B. Perkins

Assistant Professor: N. Nasser, J. Petry

Lecturers: D. Hupp

The Department of Land Resources prides itself on a “hands on” approach to learning. Students are provided a learning experience that duplicates as closely as possible real world applications. Two Associate of Science degree programs are offered, Forest Technology and Land Surveying. The baccalaureate degree in Natural Resource Management takes advantage of the two associate degree programs in the Department of Land Resources and the strength of course offerings in other departments. The degree is developed around the general education baccalaureate degree component, a Natural Resource Management core, major and a block elective component. The six degree majors are Criminal Justice, Energy and Land Management, Environmental Science, Forest Technology, Land Surveying and Wildlife Management.

The Department of Land Resources is housed in the Waco Center about one mile from the main campus. The department has about 300 acres of land adjacent to the building for outdoor projects. A sawmill is located on the property for student use along with storage buildings for timber harvesting equipment. A modern computer lab is available for use by students. This lab contains computers, plotters, and software that replicate those used in government, business, and industry. A wide array of hand tools, equipment, and forestry and land surveying instruments appropriate for teaching field labs are used to enhance instruction and learning. Global Positioning Systems (GPS) and Geographic Information Systems (GIS) technologies are used in several classes.

Student organizations include the Environmental Science Club, Forestry Club, and the Land Surveying Club. These groups promote camaraderie and provide opportunities for field trips, learning opportunities and community service.

Several scholarships are available specifically to students who are enrolled in the Land Resource programs.

For additional information about the Department of Land Resources, its programs, faculty and organizations, call (304) 462-6370.

Degree Programs

Bachelor of Science in Natural Resource Management with majors in:

- Criminal Justice
- Energy and Land Management
- Environmental Science
- Forest Technology
- Land Surveying
- Wildlife Management

Associate of Science in Forest Technology with a major in:

- Forest Technology

Associate of Science in Land Surveying with a major in:

- Land Surveying

Minors:

- Environmental Science
- Natural Resource Management

The NRMT program has an active advisory committee comprised of representatives from government, business and industries that hire Glenville State University graduates. This advisory committee ensure courses are continually updated and help greatly with job placement for graduates.

The NRMT - Forest Technology and NRMT - Land Surveying programs are listed on the Southern Regional Educational Board's (SREB) Academic Common Market and are available to out-of-state students subject to provisions of the Academic Common Market. This allows qualifying out-of-state students to attend Glenville State University at the in-state tuition rate.

The baccalaureate Natural Resource Management degree program provides the student with the opportunity to develop a major in one of the following areas:

Criminal Justice – This major is designed for those students who want to become Conservation or Natural Resources Police Officers or other enforcement personnel in the natural resource area.

Energy and Land Management – The Energy and Land Management major is designed for students interested in working in energy and land use development, management and planning. Graduates of this program are able to find a large number of career opportunities with federal government agencies, such as U. S. Department of Transportation and the Bureau of Land Management. At the state level, graduates qualify for opportunities with the Department of Environmental Protection and Division of Highways and others. Additionally, graduates qualify for private industry positions including, but not limited to, oil and gas landman, realty specialist, right-of-way agent and title abstractor.

Environmental Science – This major is designed for those students interested in environmental careers with government agencies and industry. The Environmental Science major prepares students for career opportunities in the private, public, academic and nonprofit sectors. Employers may include Federal, state, and local governments; the natural resource sector; utilities; manufacturers; and industry, as well as small business.

Forest Technology – This major provides a pathway for associate degree students in forest technology to continue their education and receive the baccalaureate degree. Students broaden their perspectives in the natural resource area for careers with government agencies as well as the private sector. Graduates have the

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necessary credentials to be registered as a professional forester and practice forestry in West Virginia as a technician or professional.

Land Surveying – This major provides a pathway for associate degree students in land surveying to continue their education for a baccalaureate degree. Students will be technically proficient in land surveying and will be able to develop a strong major in geographic information systems and resource allocation for careers with government agencies and the private sector. This degree will also provide the baccalaureate degree necessary for licensure as a professional land surveyor in West Virginia and Ohio.

Wildlife Management – This major is designed for students who want to pursue a career in wildlife management or an advanced degree in wildlife. Through the Wildlife Management major, students will acquire knowledge of the life history, habitat, and ecological requirements of important game and non-game wildlife, learn to identify, classify, and name important flora and fauna endemic to the Appalachian region, demonstrate and apply wildlife management techniques and methods, develop office and field skills in the use of geospatial technologies, computer software, and quantitative analysis, and develop wildlife management plans.

Associate Degree Programs

The associate degree programs have active advisory committees comprised of representatives from government, business and industries that hire graduates. These advisory bodies ensure that classes are continually updated and help greatly with job placement for graduates. Graduates receive the associate degree upon completion of their programs in forestry or land surveying.

Forest Technology – The University has offered an exemplary associate degree program in forest technology since 1968. This program is accredited by the Society of American Foresters. Graduates work in all aspects of forestry in the state and region. The main career pathways are procurement forestry, consulting forestry, state and federal government forestry agencies, and utility forestry.

Land Surveying – Glenville State University has been providing well-educated students for the land surveying profession since 1974. These graduates work in all aspects of surveying including; retracement, construction, route, mineral, and others. This curriculum is approved by the West Virginia Board of Professional Surveyors and the degree provides one of the six years required for licensure.

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BACHELOR OF SCIENCE NATURAL RESOURCE MANAGEMENT CRIMINAL JUSTICE

GSU 100 **The First Year Experience** **0 hour**

All degree seeking students are required to take GSU 100 during their first semester.

General Education Requirement **30 hours**

Students must complete BIOL 121, MATH 115, POSC 203, and PSYC 201 as part of the General Education requirements.

Natural Resource Management Core **32 hours**

BIOL	121	Principles of Biology II	
BIOL	400	Ecology and Field Biology	4
ENVR	352	Air/Water/Soil Quality	4
ENVR	393	Environmental Compliance	3
MGMT	201	Principles of Management	3
NRMT	125	Computer Assisted Mapping	3
NRMT	201	Forest Ecology	3
NRMT	234	GIS Applications I	3
NRMT	311	Natural Resource Permitting	3
NRMT	334	GIS Applications II	3
NRMT	493	Natural Resource Management	3

Criminal Justice Major **49 hours**

CRJU	111	Introduction to Criminal Justice System	3
CRJU	215	Crime Scene Management	3
CRJU	222	Police Practices and Procedures	3
CRJU	223	Corrections	3
CRJU	232	Criminal Evidence and Procedures	3
CRJU	310	Criminal Justice Management	3
CRJU	397	Work Experience II	1
POSC	204	State and Local Government	3
POSC	309	Civil Liberties	3
PSYC	201	General Psychology	
PSYC	105	Interviewing and Counseling	3
PSYC	342	Multicultural Psychology	3
WLMT	301	Wildlife Law & Policy	3

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General Block Electives (select from the following)

15

Courses required for the NRMT Core and selected Major will not fulfill this requirement.

BIOL		any 300-499 level course
BUSN	470	Business Law II
ENVR		any 300-499 level course
HIST	303	West Virginia History
LAND		any 300-499 level course
MGMT		any 300-499 level course
NRMT		any 300-499 level course
PHYS	310	General Astronomy
SAFE	327	Legal Aspects and General Safety
STAT		any 300-499 level course
WLMT		any 300-499 level course

General Electives

9 hours

Total minimum hours required for degree

120 hours

GATEWAY ASSESSMENT – CRJU 232

CAPSTONE ASSESSMENT – NRMT 493

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NRMT: CRIMINAL JUSTICE SUGGESTED PLAN OF STUDY

FIRST YEAR

CRJU 111	3	BIOL 121	4
ENGL 101	3	CRJU 215	3
GSU 100	0	CRJU 223	3
MATH 115	3	CRJU 232	3
MGMT 201	3	POSC 203	3
GENERAL ELECTIVES	3	Total Hours – Spring Semester	16
Total Hours – Fall Semester	15		

SECOND YEAR

ART 200 (OR) MUSC 200	2	CRJU 310	3
CRJU 222	3	ENGL 203, 204, 205 (OR) 206	3
ENGL 102	3	POSC 204	3
PSYC 105	3	PSYC 201	3
GENERAL ELECTIVES	3	GENERAL ELECTIVES	3
Total Hours – Fall Semester	14	Total Hours – Spring Semester	15

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THIRD YEAR

NRMT 201	3	ENVR 352	4
NRMT 234	3	HIST 201, 202, 207 (OR) 208	3
PSYC 342	3	NRMT 125	3
WLMT 301	3	BLOCK ELECTIVES (300-499 level)	6
BLOCK ELECTIVES (300-499 level)	3	Total Hours – Spring Semester	16
Total Hours – Fall Semester	15		

FOURTH YEAR

BIOL 400	4	ENVR 393	3
CART 101	3	NRMT 311	3
NRMT 334	3	NRMT 493	3
POSC 309	3	BLOCK ELECTIVES (300-499 level)	6
Total Hours – Fall Semester	13	Total Hours – Spring Semester	15

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BACHELOR OF SCIENCE NATURAL RESOURCE MANGAMENT ENERGY AND LAND MANAGEMENT

GSU 100 The First Year Experience 0 hour

All degree seeking students are required to take GSU 100 during their first semester.

General Education Requirement 30 hours

Students must complete BIOL 121, GEOG 203, MATH 115, and POSC 203 as part of the General Education requirements.

Natural Resource Management Core 32 hours

BIOL	121	Principles of Biology II	
BIOL	400	Ecology and Field Biology	4
ENVR	352	Air/Water/Soil Quality	4
ENVR	393	Environmental Compliance	3
MGMT	201	Principles of Management	3
NRMT	125	Computer Assisted Mapping	3
NRMT	201	Forest Ecology	3
NRMT	234	GIS Applications I	3
NRMT	311	Natural Resource Permitting	3
NRMT	334	GIS Applications II	3
NRMT	493	Natural Resource Management	3

Energy and Land Management Major 56 hours

BUSN	193	Applied Business Communications	3
BUSN	225	Business Ethics	3
BUSN	270	Business Law I	3
BUSN	470	Business Law II	3
LAMN	193	Principles of Energy and Land Management	3
LAMN	293	Landman Titles & Abstracting	3
LAMN	397	Work Experience II	1
LAND	121	Introduction to Land Surveying	3
LAND	123	Land Survey Descriptions-Interpretation and Writing	2
MGMT	484	Organizational Behavior	3
NRMT	410	Energy Resource Law	3
PHYS	209	General Geology	4

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General Block Electives (select from the following):	18
Courses required for the NRMT Core and selected Major will not fulfill this requirement.	
BIOL	any 300-499 level course
BUSN 470	Business Law II
ENVR	any 300-499 level course
HIST 303	West Virginia History
LAND	any 300-499 level course
MGMT	any 300-499 level course
NRMT	any 300-499 level course
PHYS 310	General Astronomy
SAFE 327	Legal Aspects and General Safety
STAT	any 300-499 level course
WLMT	any 300-499 level course
Restricted Block Electives:	4
See Restricted Block Electives list at the end of this catalog section.	

General Electives **2 hours**

Total minimum hours required for degree **120 hours**

GATEWAY ASSESSMENT - LAMN 293

CAPSTONE ASSESSMENT - NRMT 493

Students in the Energy and Land Management Major are encouraged to complete the following:

General Block Electives

ENVR 351	Soil Science
LAND 335	Hydrology, Drainage, and Subdivision Design
MGMT 383	Labor Relations Management
MGMT 384	Human Resource Management
MGMT 487	Operations Management
WLMT 301	Wildlife Law and Policy

Restricted Block Electives

FRST 109	Dendrology II
LAND 244	Remote Sensing and Aerial Photo Interpretation

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NRMT: ENERGY AND LAND MANAGEMENT SUGGESTED PLAN OF STUDY

FIRST YEAR

ENGL 101	3	ART 200 (OR) MUSC 200.....	2
GSU 100.....	0	BIOL 121.....	4
LAMN 193	3	CART 101	3
MATH 115	3	ENGL 102	3
NRMT 125	3	LAMN 293	3
GENERAL ELECTIVES	2	Total Hours – Spring Semester.....	15
Total Hours – Fall Semester	14		

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SECOND YEAR

BUSN 225	3	BUSN 193	3
BUSN 270	3	ENVR 393	3
GEOG 203.....	3	LAND 123	2
LAND 121.....	3	NRMT 234.....	3
MGMT 201.....	3	PHYS 209.....	4
Total Hours – Fall Semester	15	RESTRICTED BLOCK ELECTIVE.....	2
		Total Hours – Spring Semester.....	17

THIRD YEAR

BIOL 400.....	4	BUSN 470	3
NRMT 201	3	ENGL 203, 204, 205 (OR) 206	3
BLOCK ELECTIVE (300-499 level).....	6	ENVR 352	4
Total Hours – Fall Semester	13	NRMT 311.....	3
		BLOCK ELECTIVE (300-499 level).....	3
		Total Hours – Spring Semester	16

FOURTH YEAR

MGMT 484.....	3	HIST 201, 202, 207 (OR) 208	3
NRMT 334	3	NRMT 493.....	3
NRMT 410	3	RESTRICTED BLOCK ELECTIVES	
POSC 203	3	(300-499 level)	2
BLOCK ELECTIVE (300-499 level).....	3	BLOCK ELECTIVES (300-499 level).....	6
Total Hours – Fall Semester	15	Total Hours – Spring Semester.....	14

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BACHELOR OF SCIENCE NATURAL RESOURCE MANAGEMENT ENVIRONMENTAL SCIENCE

GSU 100 The First Year Experience 0 hour

All degree seeking students are required to take GSU 100 during their first semester.

General Education Requirement 30 hours

Students must complete BIOL 121, GEOG 203, MATH 115 and POSC 203 as part of the General Education requirements.

Natural Resource Management Core 32 hours

BIOL	121	Principles of Biology II	
BIOL	400	Ecology and Field Biology	4
ENVR	352	Air/Water/Soil Quality	4
ENVR	393	Environmental Compliance	3
MGMT	201	Principles of Management	3
NRMT	125	Computer Assisted Mapping	3
NRMT	201	Forest Ecology	3
NRMT	234	GIS Applications I	3
NRMT	311	Natural Resource Permitting	3
NRMT	334	GIS Applications II	3
NRMT	493	Natural Resource Management	3

Environmental Science Major 52 hours

BIOL	250	Microbiology of Diseases (OR)	
BIOL	361	Microbiology	4
CHEM	101	General Chemistry I	4
CHEM	102	General Chemistry II	4
ENVR	101	Environmental Science	4
ENVR	193	Solid Waste Management	3
ENVR	255	Health and Safety	3
ENVR	351	Soil Science	3
ENVR	397	Work Experience II	1
PHYS	209	General Geology	4
STAT	361	Introduction to Statistical Analysis	3

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General Block Electives (select from the following) 15
Courses required for the NRMT Core and selected Major will not fulfill this requirement.

BIOL any 300-499 level course
BUSN 470 Business Law II
ENVR any 300-499 level course
HIST 303 West Virginia History
LAND any 300-499 level course
MGMT any 300-499 level course
NRMT any 300-499 level course
PHYS 310 General Astronomy
SAFE 327 Legal Aspects and General Safety
STAT any 300-499 level course
WLMT any 300-499 level course

Restricted Block Electives 4
See Restricted Block Electives list at the end of this catalog section.

General Electives 6 hours

Total minimum hours required for degree 120 hours

GATEWAY ASSESSMENT - ENVR 193

CAPSTONE ASSESSMENT - NRMT 493

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NRMT: ENVIRONMENTAL SCIENCE
SUGGESTED PLAN OF STUDY

FIRST YEAR

ENGL 101	3	BIOL 121	4
ENVR 101	4	CART 101	3
GEOG 203	3	ENGL 102	3
GSU 100	0	NRMT 125	3
MATH 115	3	RESTRICTED BLOCK ELECTIVE	2
Total Hours – Fall Semester	13	Total Hours – Spring Semester	15

SECOND YEAR

CHEM 101	4	CHEM 102	4
ENVR 193	3	ENVR 352	4
ENVR 255	3	ENVR 393	3
NRMT 234	3	MGMT 201	3
RESTRICTED BLOCK ELECTIVES	2	NRMT 334	3
Total Hours – Fall Semester	15	Total Hours – Spring Semester	17

SUMMER

ENVR 397	1
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THIRD YEAR

BIOL 400	4	ART 200 (OR) MUSC 200	2
ENVR 351	3	HIST 201, 202, 207 (OR) 208	3
NRMT 201	3	NRMT 311	3
BLOCK ELECTIVES (300-499 level)	6	STAT 361	3
Total Hours – Fall Semester	16	GENERAL ELECTIVES	3
		Total Hours – Spring Semester	14

FOURTH YEAR

BIOL 250 (OR) 361	4	NRMT 493	3
ENGL 203, 204, 205 (OR) 206	3	GENERAL ELECTIVES	3
PHYS 209	4	BLOCK ELECTIVES (300-499 level)	9
POSC 203	3	Total Hours – Spring Semester	15
Total Hours – Fall Semester	14		

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BACHELOR OF SCIENCE NATURAL RESOURCE MANAGEMENT FOREST TECHNOLOGY

GSU 100 The First Year Experience 0 hour

All degree seeking students are required to take GSU 100 during their first semester.

General Education Requirement 30 hours

Students must complete BIOL 121 and MATH 115 as part of the General Education requirements.

Natural Resource Management Core 32 hours

BIOL	121	Principles of Biology II	
BIOL	400	Ecology and Field Biology	4
ENVR	352	Air/Water/Soil Quality	4
ENVR	393	Environmental Compliance	3
MGMT	201	Principles of Management	3
NRMT	125	Computer Assisted Mapping	3
NRMT	201	Forest Ecology	3
NRMT	234	GIS Applications I	3
NRMT	311	Natural Resource Permitting	3
NRMT	334	GIS Applications II	3
NRMT	493	Natural Resource Management	3

Forest Technology Major 53 hours

FRST	103	Forest Measurements I	3
FRST	108	Dendrology I	1
FRST	109	Dendrology II	1
FRST	110	Dendrology III	1
FRST	193	Forest Measurements II	3
FRST	197	Work Experience I	1
FRST	202	Forest Recreation and Wildlife Management	3
FRST	203	Forest Entomology and Pathology	3
FRST	205	Wood Products, Processing and Marketing	2
FRST	206	Timber Harvest Planning and Systems	3
FRST	209	Silviculture and Vegetation Management	4
FRST	212	Timber Harvesting Techniques	2
FRST	214	Fire Protection	2
FRST	216	Wood Identification	1
FRST	293	Forest Management	3
LAND	121	Introduction to Land Surveying	3
LAND	244	Remote Sensing and Aerial Photo Interpretation	1
PED	201	First Aid and Safety	1

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General Block Electives (select from the following)	15
Courses required for the NRMT Core and selected Major will not fulfill this requirement.	
BIOL	any 300-499 level course
BUSN 470	Business Law II
ENVR	any 300-499 level course
HIST 303	West Virginia History
LAND	any 300-499 level course
MGMT	any 300-499 level course
NRMT	any 300-499 level course
PHYS 310	General Astronomy
SAFE 327	Legal Aspects and General Safety
STAT	any 300-499 level course
WLMT	any 300-499 level course
General Electives (300-499 level)	5 hours
Total minimum hours required for degree	120 hours

GATEWAY ASSESSMENT - FRST 293

CAPSTONE ASSESSMENT - NRMT 493

Department of Land Resources 208

NRMT: FOREST TECHNOLOGY SUGGESTED PLAN OF STUDY

FIRST YEAR

ENGL 101	3	BIOL 121	4
FRST 103	3	ENGL 102	3
FRST 108	1	FRST 110.....	1
FRST 109	1	FRST 193.....	3
FRST 214	2	LAND 121	3
GSU 100.....	0	NRMT 234.....	3
MATH 115	3	Total Hours – Spring Semester	17
Total Hours – Fall Semester	13		

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FRST 197	1
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SECOND YEAR

FRST 203	3	FRST 202.....	3
FRST 209	4	FRST 205.....	2
FRST 212	2	FRST 206.....	3
LAND 244.....	1	FRST 216.....	1
MGMT 201	3	FRST 293.....	3
NRMT 201	3	PED 201.....	1
Total Hours – Fall Semester	16	Total Hours – Spring Semester	13

THIRD YEAR

ECON 201, GEOG 203, PSYC 201, (OR) SOCS 225.....	3	ART 200 (OR) MUSC 200.....	2
HIST 201, 202, 207, 208 (OR) POSC 203	3	CART 101	3
NRMT 125	3	ENGL 203, 204, 205 (OR) 206	3
GENERAL ELECTIVES (300-499 level).....	3	ENVR 352	4
BLOCK ELECTIVES (300-499 level).....	4	BLOCK ELECTIVES (300-499 level).....	4
Total Hours – Fall Semester	16	Total Hours – Spring Semester.....	16

FOURTH YEAR

BIOL 400.....	4	ENVR 393	3
HIST 201, 202, 207, 208 (OR) POSC 203	3	NRMT 311.....	3
NRMT 334	3	NRMT 493.....	3
GENERAL ELECTIVES (300-499 level).....	2	GENERAL ELECTIVES (300-499 level).....	4
BLOCK ELECTIVES (300-499 level).....	3	Total Hours – Spring Semester.....	13
Total Hours – Fall Semester	15		

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BACHELOR OF SCIENCE NATURAL RESOURCE MANAGEMENT LAND SURVEYING

GSU 100 The First Year Experience 0 hour

All degree seeking students are required to take GSU 100 during their first semester.

General Education Requirement 30 hours

Students must complete BIOL 121 and MATH 115 as part of the General Education requirements.

Natural Resource Management Core 32 hours

BIOL	121	Principles of Biology II	
BIOL	400	Ecology and Field Biology	4
ENVR	352	Air/Water/Soil Quality	4
ENVR	393	Environmental Compliance	3
MGMT	201	Principles of Management	3
NRMT	125	Computer Assisted Mapping	3
NRMT	201	Forest Ecology	3
NRMT	234	GIS Applications I	3
NRMT	311	Natural Resource Permitting	3
NRMT	334	GIS Applications II	3
NRMT	493	Natural Resource Management	3

Land Surveying Major 55 hours

ENVR	101	Environmental Science (OR)	
PHYS	209	General Geology (OR)	
SCNC	101	Earth Science	4
FRST	109	Dendrology II	1
FRST	216	Wood Identification	1
LAND	121	Introduction to Land Surveying	3
LAND	123	Land Survey Descriptions-Interpretations and Writing	2
LAND	124	Land Survey Boundary Law	3
LAND	193	Survey Math and Geomatics I	3
LAND	197	Work Experience I	1
LAND	230	Survey Math and Geomatics II	3
LAND	231	Retracement Surveys	3
LAND	232	Cartographic Surveying	3
LAND	240	Route and Construction Surveys	4
LAND	241	Energy Resource Surveying	2
LAND	244	Remote Sensing and Aerial Photo Interpretation	1
LAND	293	Survey Decisions & Professional Applications	6
LAND	335	Hydrology, Drainage and Subdivision Design	4
MATH	115	College Algebra	
MATH	125	College Trigonometry	3

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General Block Electives (300-499 level)	8
Courses required for the NRMT Core and selected Major will not fulfill this requirement.	
BIOL	any 300-499 level course
BUSN 470	Business Law II
ENVR	any 300-499 level course
HIST 303	West Virginia History
LAND	any 300-499 level course
MGMT	any 300-499 level course
NRMT	any 300-499 level course
PHYS 310	General Astronomy
SAFE 327	Legal Aspects and General Safety
STAT	any 300-499 level course
WLMT	any 300-499 level course
General Elective (300-499 level)	3 hours
PED 301 is recommended	
Total minimum hours required for degree	120 hours

GATEWAY ASSESSMENT - LAND 293

CAPSTONE ASSESSMENT - NRMT 493

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NRMT: LAND SURVEYING SUGGESTED PLAN OF STUDY

FIRST YEAR

BIOL 121.....	4	FRST 216.....	1
ENGL 101	3	LAND 123	2
FRST 109	1	LAND 124	3
GSU 100.....	0	LAND 193	3
LAND 121.....	3	MATH 125	4
MATH 115	3	NRMT 125.....	3
Total Hours – Fall Semester	14	PED 301 (OR) GENERAL ELECTIVE (300-499 level)	1
		Total Hours – Spring Semester.....	17

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LAND 197.....	1
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SECOND YEAR

ENGL 102	3	ENVR 101, PHYS 209 (OR) SCNC 101.....	4
GEOG 203.....	3	LAND 240.....	4
LAND 230.....	3	LAND 241	2
LAND 231.....	3	LAND 293	6
LAND 232.....	3	Total Hours – Spring Semester	16
LAND 244.....	1		
Total Hours – Fall Semester	16		

THIRD YEAR

ART 200 (OR) MUSC 200.....	2	CART 101	3
ENGL 203, 204, 205 (OR) 206	3	ENVR 352	4
MGMT 201.....	3	HIST 201, 202, 207 (OR) 208	3
NRMT 201	3	NRMT 234.....	3
GENERAL ELECTIVES (300-499 level).....	1	BLOCK ELECTIVES (300-499 level).....	4
Total Hours – Fall Semester	12	Total Hours – Spring Semester.....	17

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BIOL 400.....	4	ENVR 393	3
LAND 335.....	4	NRMT 311.....	3
POSC 203	3	NRMT 493.....	3
NRMT 334	3	BLOCK ELECTIVES (300-499 level).....	4
Total Hours – Fall Semester	14	Total Hours – Spring Semester.....	13

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BACHELOR OF SCIENCE NATURAL RESOURCE MANAGEMENT WILDLIFE MANAGEMENT

GSU 100 The First Year Experience 0 hour

All degree seeking students are required to take GSU 100 during their first semester.

General Education Requirement 30 hours

Students must complete BIOL 121 and MATH 115 as part of the General Education requirements.

Natural Resource Management Core 32 hours

BIOL	121	Principles of Biology II	
BIOL	400	Ecology and Field Biology	4
ENVR	352	Air/Water/Soil Quality	4
ENVR	393	Environmental Compliance	3
MGMT	201	Principles of Management	3
NRMT	125	Computer Assisted Mapping	3
NRMT	201	Forest Ecology	3
NRMT	234	GIS Applications I	3
NRMT	311	Natural Resource Permitting	3
NRMT	334	GIS Applications II	3
NRMT	493	Natural Resource Management	3

Wildlife Management Major 56 hours

BIOL	120	Principles of Biology I	4
BIOL	314	Zoology	4
FRST	103	Forest Measurements I	3
FRST	108	Dendrology I	1
FRST	109	Dendrology II	1
FRST	110	Dendrology III	1
FRST	193	Forest Measurements II	3
FRST	202	Forest Recreation and Wildlife Management	3
FRST	206	Timber Harvest Planning and Systems	3
FRST	209	Silviculture and Vegetation Management	4
FRST	212	Timber Harvesting Techniques	2
FRST	214	Fire Protection	2
FRST	293	Forest Management	3
WLMT	301	Wildlife Law & Policy	3
WLMT	302	Wildlife Habitat Management	3
WLMT	397	Work Experience II	1
WLMT	404	Mammalogy	4
WLMT	493	Wildlife Techniques	3

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Restricted Electives (select from the following)	8
BIOL 305 General Botany	4
BIOL 351 Flora of West Virginia (cross listed as NRMT 351)	4
BIOL 361 Microbiology	4
BIOL 371 Evolution	4
General Electives	2 hours
Total minimum hours required for degree	120 hours

GATEWAY ASSESSMENT – FRST 202

CAPSTONE ASSESSMENT – WLMT 493

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NRMT: WILDLIFE MANAGEMENT SUGGESTED PLAN OF STUDY

FIRST YEAR

ENGL 101	3	BIOL 121	4
FRST 103	3	ENGL 102	3
FRST 108	1	FRST 110.....	1
FRST 109	1	FRST 193.....	3
FRST 214	2	FRST 202.....	3
GSU 100.....	0	NRMT 234.....	3
MATH 115	3	Total Hours – Spring Semester	17
Total Hours – Fall Semester	13		

SECOND YEAR

BIOL 120.....	4	ART 200 (OR) MUSC 200.....	2
FRST 209	4	CART 101	3
FRST 212	2	FRST 206.....	3
MGMT 201.....	3	FRST 293.....	3
NRMT 201	3	HIST 201, 201, 207 (OR) 208	3
Total Hours – Fall Semester	16	Total Hours – Spring Semester.....	14

THIRD YEAR

BIOL 314.....	4	ENGL 203, 204, 205 (OR) 206	3
ECON 201, GEOG 203, PSYC 201 (OR) SOCS 225	3	ENVR 352	4
NRMT 125	3	HIST 201, 202, 207, 208 (OR) POSC 203	3
NRMT 311	3	WLMT 302.....	3
GENERAL ELECTIVES	2	Total Hours – Spring Semester	13
Total Hours – Fall Semester	15		

SUMMER

WLMT 397	1
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FOURTH YEAR

BIOL 400.....	4	ENVR 393	3
NRMT 334	3	NRMT 493.....	3
WLMT 301.....	3	WLMT 493.....	3
WLMT 404.....	4	RESTRICTED ELECTIVES.....	4
RESTRICTED ELECTIVES.....	4	Total Hours – Spring Semester	13
Total Hours – Fall Semester	18		

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Restricted Block Electives

If any of the following restricted electives are counted toward satisfying general education, core or major hours they cannot be counted as required restricted electives.

ACCT	231	Principles of Accounting I	3
ACCT	232	Principles of Accounting II	3
BIOL	120	Principles of Biology II	4
BIOL	293	Techniques of Science	2
BUSN	100	Introduction to Business	3
BUSN	193	Applied Business Communication	3
BUSN	230	Quantitative Business Analysis I	3
BUSN	270	Business Law I	3
CHEM	293	Techniques of Chemistry	1
CRJU	111	Introduction to Criminal Justice System	3
CSCI	260	Management Information Systems	3
ECON	201	Principles of Microeconomics	3
ECON	202	Principles of Macroeconomics	3
FRST	108	Dendrology I	1
FRST	109	Dendrology II	1
FRST	110	Dendrology III	1
FRST	202	Forest Recreation and Wildlife Management	3
FRST	203	Forest Entomology and Pathology	3
GEOG	203	World Regional Geography	3
GEOG	204	Physical Geography	3
LAMN	193	Principles of Energy and Land Management	3
LAMN	293	Landman Titles and Abstracting	3
LAND	121	Introduction to Land Surveying	3
LAND	123	Land Survey Descriptions-Interpretations and Writing	2
LAND	124	Land Survey Boundary Law	3
LAND	243	Introduction to Drone Technology	2
LAND	244	Remote Sensing and Aerial Photo Interpretation	1
MATH	202	Calculus I	4
MATH	256	Probability and Statistics I	3
MRKT	201	Principles of Marketing	3
PHYS	201	General Physics I	4
PHYS	202	General Physics II	4
PHYS	209	General Geology	4
SCNC	101	Earth Science	4

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ASSOCIATE OF SCIENCE FOREST TECHNOLOGY

GSU 100 The First Year Experience 0 hour

All degree seeking students are required to take GSU 100 during their first semester.

General Education Requirements 24 hours

WRITTEN AND ORAL COMMUNICATION

ENGL 101 Critical Reading and Writing I 3
ENGL 102 Critical Reading and Writing II: Research Writing 3

PROBLEM SOLVING AND CRITICAL THINKING

BIOL 121 Principles of Biology II 4
FRST 108 Dendrology I 1
MATH 115 College Algebra 3
NRMT 201 Forest Ecology 3

CULTURE AND SOCIETY

MGMT 201 Principles of Management 3
PED 201 First Aid and Safety 1

TECHNOLOGY

NRMT 234 GIS Application I 3

Major 36 hours

FRST 103 Forest Measurements I 3
FRST 109 Dendrology II 1
FRST 110 Dendrology III 1
FRST 193 Forest Measurements II 3
FRST 197 Work Experience I 1
FRST 202 Forest Recreation and Wildlife Management 3
FRST 203 Forest Entomology and Pathology 3
FRST 205 Wood Products, Processing and Marketing 2
FRST 206 Timber Harvest Planning and Systems 3
FRST 209 Silviculture and Vegetation Management 4
FRST 212 Timber Harvesting Techniques 2
FRST 214 Fire Protection 2
FRST 216 Wood Identification 1
FRST 293 Forest Management 3
LAND 121 Introduction to Land Surveying 3
LAND 244 Remote Sensing Aerial Photo Interpretation 1

Total minimum hours required for degree 60 hours

GATEWAY ASSESSMENT - FRST 193

CAPSTONE ASSESSMENT - FRST 293

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FOREST TECHNOLOGY
SUGGESTED PLAN OF STUDY

FIRST YEAR

ENGL 101	3	BIOL 121	4
FRST 103	3	ENGL 102	3
FRST 108	1	FRST 110.....	1
FRST 109	1	FRST 193.....	3
FRST 214	2	LAND 121	3
GSU 100.....	0	NRMT 234.....	3
MATH 115	3	Total Hours - Spring Semester	17
Total Hours - Fall Semester	13		

SUMMER

FRST 197	1
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SECOND YEAR

FRST 203	3	FRST 202.....	3
FRST 209	4	FRST 205.....	2
FRST 212	2	FRST 206.....	3
LAND 244.....	1	FRST 216.....	1
MGMT 201.....	3	FRST 293.....	3
NRMT 201	3	PED 201.....	1
Total Hours - Fall Semester	16	Total Hours - Spring Semester	13

Department of Land Resources 218

ASSOCIATE OF SCIENCE LAND SURVEYING

GSU 100 The First Year Experience **0 hour**
 All degree seeking students are required to take GSU 100 during their first semester.

General Education **24 hours**

WRITTEN AND ORAL COMMUNICATION

ENGL	101	Critical Reading and Writing I	3
ENGL	102	Critical Reading and Writing II: Research Writing	3

PROBLEM SOLVING AND CRITICAL THINKING

ENVR	101	Environmental Science (OR)	
PHYS	209	General Geology (OR)	
SCNC	101	Earth Science	4
MATH	115	College Algebra	3
MATH	125	College Trigonometry	3

CULTURE AND SOCIETY

PED	201	First Aid and Safety	1
PED	301	Lifelong Wellness	1

Any one of the following: 3

ECON	201	Principles of Microeconomics	
ECON	202	Principles of Macroeconomics	
GEOG	203	World Regional Geography	
HIST	201	History of World Cultures I	
HIST	202	History of World Cultures II	
HIST	207	U.S. History to 1877	
HIST	208	U.S. History Since 1877	
POSC	203	American National Government	
PSYC	201	General Psychology	
SOCS	225	Introduction to Global Studies	

TECHNOLOGY

NRMT	125	Computer Assisted Mapping	3
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Major **36 hours**

FRST	109	Dendrology II	1
FRST	216	Wood Identification	1
LAND	121	Introduction to Land Surveying	3
LAND	123	Land Survey Descriptions-Interpretation and Writing	2
LAND	124	Land Survey Boundary Law	3
LAND	193	Survey Math and Geomatics I	3
LAND	197	Work Experience I	1
LAND	230	Surveying Math and Geomatics II	3
LAND	231	Retracement Surveys	3
LAND	232	Cartographic Surveying	3
LAND	240	Route and Construction Surveys	4
LAND	241	Energy Resource Surveying	2
LAND	244	Remote Sensing Aerial Photo Interpretation	1
LAND	293	Survey Decisions/Professional Applications	6
MATH	115	College Algebra	
MATH	125	College Trigonometry	

(continued on next page)

Total minimum hours required for degree **60 hours**

GATEWAY ASSESSMENT - LAND 193

CAPSTONE ASSESSMENT - LAND 293

Department of Land Resources 219

LAND SURVEYING
SUGGESTED PLAN OF STUDY

FIRST YEAR

ENGL 101	3	FRST 216.....	1
FRST 109	1	GEOG 203*	3
GSU 100.....	0	LAND 123	2
LAND 121	3	LAND 124	3
MATH 115	3	LAND 193	3
NRMT 125	3	MATH 125	3
PED 201	1	PED 301.....	1
Total Hours - Fall Semester	14	Total Hours - Spring Semester	16

SUMMER

LAND 197	1
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SECOND YEAR

ENGL 102	3	LAND 240	4
ENVR 101, PHYS 209 (OR) SCNC 101.....	4	LAND 241	2
LAND 230.....	3	LAND 293	6
LAND 231	3	Total Hours - Spring Semester	12
LAND 232.....	3		
LAND 244.....	1		
Total Hours - Fall Semester	17		

*Suggested course due to being required in 4-year surveying degree.