

# Resource Economics and Management

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## Degrees Offered

- Master of Science with a major in Resource Economics and Management

The M.S. program in Resource Economics and Management (REM) provides advanced training in the areas of natural resource, environmental, agricultural, energy, agribusiness, and rural development economics. The primary objective of this program is to prepare students for further graduate study or a variety of careers in business and government. A candidate for the degree must comply with University, College, and Program requirements. The M.S. degree in Resource Economics and Management can be obtained under either course work or thesis options.

## Admissions

Candidates for the master of science degree may be admitted on a regular or provisional basis. Prerequisites for admission include the following:

- Twelve or more semester credits in economics, agricultural and resource economics, statistics, or appropriate social science courses (should include a course in intermediate microeconomics)
- Three or more semester hours of credit in calculus

Students lacking these prerequisites have to complete coursework to acquire them. Graduate programs are planned to ensure that candidates develop competence in the following:

- Communicating economic policy issues
- Theoretical and analytical skills to analyze and evaluate economic policies
- Research to develop economic policy proposals

A candidate for the M.S. degree in Resource Economics and Management must meet all University, College, Division, and Program requirements as outlined in the WVU Graduate Catalog.

## Program Requirements

All M.S. degree candidates are required to follow a planned program of study. The student develops the plan of study during their first year in the program in conjunction with the graduate committee. The plan must be approved by the Director of the Division and the Associate Dean for Academic Affairs of the Davis College.

## THESIS OPTION

A minimum of thirty credit hours of approved coursework can include not more than six hours of credit for the thesis. Proficiency in economics plus agricultural and resource economics is expected. Approved courses in closely related areas may be included. The student's graduate committee must approve the student's course of study and thesis topic.

### Required Courses

ARE 601	Applied Microeconomics	4
<b>Quantitative Methods Requirements</b>		
ARE 621	Quantitative Methods in Resource Economics	3
ARE 624	Econometric Methods in Resource Economics	3
Select one of the following:		3
ARE 643	Project Analysis and Evaluation	
ECON 721	Mathematical Economics	
RESM 540	Geospatial Modeling	
RESM 575	Spatial Analysis for Resource Management	
<b>Seminar</b>		1
ARE 696	Graduate Seminar	
<b>Thesis Research</b>		1
ARE 697	Research	
<b>Advisor Approved Electives*</b>		15

\*Required number of electives may vary based on Seminar or Thesis. Please see your advisor for additional courses that may apply to this requirement

AGEE 642	Agriculture Education Research Methods and Design	
ARE 440	Futures Markets and Commodity Prices	
ARE 445	Energy Economics	
ARE 540	Rural and Regional Development	
ARE 600	Research Methods	
ARE 632	Natural Resource and Environmental Economics	
ARE 633	Natural Resource Policy Analysis	
FOR 438	Human Dimensions Natural Resource Management	
SOCA 511	Survey Research Methods	
<b>Written and Oral Exam</b>		
Total Hours		30

## NON-THESIS/COURSEWORK OPTION

A minimum of thirty-six credit hours of approved coursework to provide proficiency in economics, resource, and agricultural and resource economics. Courses in closely related areas may be included if approved by the student's graduate committee. The student must satisfactorily complete a written and oral examination administered by the student's graduate committee.

### Required Courses

ARE 601	Applied Microeconomics	4
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### Quantitative Methods Requirements

ARE 621	Quantitative Methods in Resource Economics	3
ARE 624	Econometric Methods in Resource Economics	3

Select one of the following: 3

ARE 643	Project Analysis and Evaluation	
ECON 721	Mathematical Economics	
RESM 540	Geospatial Modeling	
RESM 575	Spatial Analysis for Resource Management	

**Seminar** 1

ARE 696	Graduate Seminar	
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**Advisor Approved Electives\*** 22

\*Required number of electives may vary based on Seminar or Thesis. Please see your advisor for additional courses that may apply to this requirement

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ARE 633	Natural Resource Policy Analysis	
FOR 438	Human Dimensions Natural Resource Management	
SOCA 511	Survey Research Methods	

**Written and Oral Exam**

Total Hours 36

\* Students must complete a minimum of 30 total hours, of which at least 24 hours must be coursework other than research, thesis, project, internship, etc. credits.

Graduate courses offered toward the degree must be approved by the student's graduate committee. Thesis and non-thesis options are available for the master's degree. Students should select one option by the time twelve hours of coursework are completed (usually by the end of the first semester in the program) and after consulting with their graduate advisor or committee. Candidates with graduate research assistantships must select the thesis option.

## **Major Learning Outcomes**

### **RESOURCE ECONOMICS AND MANAGEMENT**

The primary objective of this major is to prepare students for further graduate study or a variety of careers in business and government. Learning goals are that each graduate:

- Can apply microeconomic theories to analyze resource economics and management issues.
- Demonstrates the use of quantitative tools in the analysis of applied issues in resource economics and management.
- Is proficient in oral and written communication.