Note:

Course content may be changed, term to term, without notice. The information below is provided as a guide for course selection and is not binding in any form, and should not be used to purchase course materials.
COURSE SYLLABUS
ENVR 370  
GEOGRAPHIC INFORMATION SYSTEMS (GIS)

COURSE DESCRIPTION
This course is designed to provide practical experience in spatial database design and analysis using Geographical Information System (GIS) as applied primarily to the environmental sciences. Topics include: the history of GIS; GIS data structures and sources of data; GIS tools; software applications; and resources. Exercises include: spatial data display and query; map generation; and simple spatial analysis using ArcGIS software.

RATIONALE
To be marketable in the growing environmental field, the student must possess mapping skills. Most environmental decisions require the analysis of data portrayed on maps. This course will teach the student to utilize data to generate maps for the purpose of analysis. This course is required for the cognate in Green and Sustainable Management (B.S. in Business Administration). This course is also required for a B.S. in Environmental Biology.

I. PREREQUISITES
For information regarding prerequisites for this course, please refer to the Academic Course Catalog.

II. REQUIRED RESOURCE PURCHASES
Click on the following link to view the required resource(s) for the term in which you are registered: http://bookstore.mbsdirect.net/liberty.htm

III. ADDITIONAL MATERIALS FOR LEARNING
A. Computer with basic audio/video output equipment
B. Internet access (broadband recommended)
C. Microsoft Word
   (Microsoft Office is available at a special discount to Liberty University students.)
D. ArcGIS
   (A 180-Day Trial Version is included with the Gorr & Kurland textbook.)

IV. MEASURABLE LEARNING OUTCOMES
Upon successful completion of this course, the student will be able to:
A. Discuss God’s charge to us to be stewards of His world.
B. Describe how Geographic Information System (GIS) is used to analyze and illustrate the world on which we live and to manage our impact on the world.
C. Explain the basic concepts of digital cartography.
D. Explain the practical foundations of GIS and of working with digital spatial data.
E. Illustrate the uses of spatial data in various disciplines.
F. Demonstrate the use of computers for collecting internet data, analyzing spatial data in GIS applications, and creating maps and reports.

V. COURSE REQUIREMENTS AND ASSIGNMENTS
A. Textbook readings and lecture presentations
B. Course Requirements Checklist
   After reading the Syllabus and Student Expectations, the student will complete the related checklist found in Module/Week 1.
C. Discussion Board Forums (2)
   The student is required to create a thread in response to the provided prompt for each forum. Each thread must be at least 300 words and demonstrate course-related knowledge. In addition to the thread, the student is required to reply to 2 other classmates’ threads. Each reply must be at least 150 words.
D. Chapter Assignments Summaries (11)
   The student will answer a series of questions based on the exercises he/she completes for each chapter.
E. Topographic Map Exercise
   The student will answer a series of questions based on the topographic map presentation; the Bremerton East Quadrangle, Washington, map; and other maps downloaded from the USGS website.
F. Exams (4)
   Each exam will cover the Reading & Study material for the modules/weeks in which it is assigned. Each exam will be open-book/open-notes, contain 50 multiple-choice and true/false questions, and have a 1-hour time limit.

VI. COURSE GRADING AND POLICIES
A. Points
   Course Requirements Checklist 10
   Discussion Board Forums (2 at 55 pts ea) 110
   Chapter Assignments Summaries
   (1 at 40 pts; 5 at 30 pts ea; 5 at 20 pts ea) 290
   Topographic Map Exercise 100
   Exams (4 at 125 pts ea) 500
   Total 1010

B. Scale
   A = 900–1010  B = 800–899  C = 700–799  D = 600–699  F = 0–599
C. Late Assignment Policy

If the student is unable to complete an assignment on time, then he or she must contact the instructor immediately by email.

Assignments that are submitted after the due date without prior approval from the instructor will receive the following deductions:

1. Late assignments submitted within one week of the due date will receive a 10% deduction.
2. Assignments submitted more than one week late will receive a 20% deduction.
3. Assignments submitted two weeks late or after the final date of the course will not be accepted.
4. Late Discussion Board threads or replies will not be accepted.

Special circumstances (e.g. death in the family, personal health issues) will be reviewed by the instructor on a case-by-case basis.

D. Disability Assistance

Students with a documented disability may contact Liberty University Online’s Office of Disability Academic Support (ODAS) at LUODAS@liberty.edu to make arrangements for academic accommodations. Further information can be found at www.liberty.edu/disabilitysupport.
# Course Schedule

**ENVR 370**


<table>
<thead>
<tr>
<th>Module/Week</th>
<th>Reading &amp; Study</th>
<th>Assignments</th>
<th>Points</th>
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<tr>
<td>1</td>
<td>Gorr &amp; Kurland: Preface 1 presentation</td>
<td>Course Requirements Checklist  Class Introductions DB Forum 1</td>
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<tr>
<td>2</td>
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<td>Chapter 1 Assignments Summary  Chapter 2 Assignments Summary Exam 1</td>
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<td>Chapter 9 Assignments Summary Exam 3</td>
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<td>Chapter 11 Assignments Summary Exam 4</td>
<td>20 125</td>
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**Total** 1010

*DB = Discussion Board*  
*USGS = U.S. Geological Survey*

**NOTE:** Each course week (except Module/Week 1) begins on Tuesday morning at 12:00 a.m. (ET) and ends on Monday night at 11:59 p.m. (ET). The final week ends at 11:59 p.m. (ET) on Friday.