



Syllabus for GEOG 422/822 Advanced Geographic Information Systems

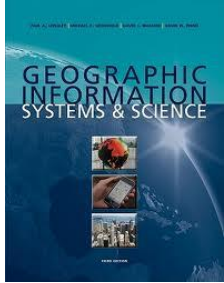
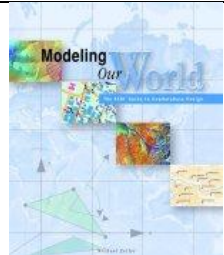
Spring 2012 School of Natural Resources, University of Nebraska-Lincoln

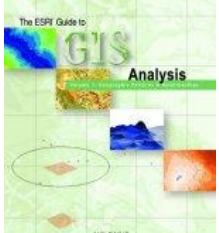
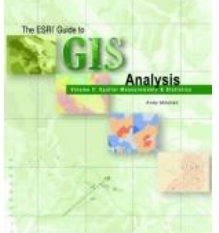
Lecture 9:30-10:45am T and Th, 228 Hardin Hall
Laboratory XXXXXXXX

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Office Hours XXXXXXXX

Prerequisite GEOG/NRES 412/812 Introduction to Geographic Information Systems

<p>Required Textbook</p>		<p>Paul Longley, Michael F. Goodchild, David Maguire, and David Rhind. 2010. <i>Geographic Information Systems and Science, 3rd Edition</i>. John Wiley and Sons ISBN: 978-0470721445</p>
<p>Optional Textbook</p>		<p>Michael Zeiler. 1999. <i>Modeling Our World</i>. ESRI Press ISBN: 978-1-879102-62-0</p>

Optional Textbook		Andy Mitchell. 1999. <i>The ESRI Guide to GIS Analysis, Volume 1: Geographic Patterns and Relationships</i> . ESRI Press ISBN: 978-1-879102-06-4
Optional Textbook		Andy Mitchell. 2005. <i>The ESRI Guide to GIS Analysis, Volume 2: Spatial Measurements and Statistics</i> . ESRI Press ISBN: 978-1-58948-116-9

Course Synopsis	<ul style="list-style-type: none"> • Students will learn the technical issues underlying Geographic Information Systems (GIS), including GIS data modeling, database models and structures, analytical algorithms and procedures, spatial modeling concepts and methods, and some latest developments in GIS. • Laboratory assignments include the analysis of digital geographic information from physical and social sources, emphasizing the use of standard GIS software to illustrate techniques of Geodatabase, map digitizing, digital map display, spatial analysis, and decision support. • Students will also work collaboratively (for undergraduate students) or independently (for graduate students) to design, implement and present GIS projects, applying GIS theory and techniques to solve spatial problems chosen by themselves.
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Requirements	Students are required to attend all the lectures , take two in-class quizzes , complete lab 1-8 (lab 0 is optional) and the final project on time . Grading will be based on the performance in all these activities.
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Grading	<table border="1"> <thead> <tr> <th>Item</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Quiz I</td> <td>10%</td> </tr> <tr> <td>Quiz II</td> <td>10%</td> </tr> <tr> <td>Labs (1-8)*</td> <td>50%</td> </tr> <tr> <td>Final Project*</td> <td>30%</td> </tr> </tbody> </table>	Item	Percentage	Quiz I	10%	Quiz II	10%	Labs (1-8)*	50%	Final Project*	30%	* Late penalty will be applied if the lab/project is turned in after the due date (12AM at midnight): 10% of the lab/project grade will be deducted for everyday overdue.
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