

GEOG 176B Technical Issues in GIS / Spatial Data [Winter 2021]

M W 11:00- 12:15 online

(The syllabus is subject to change)

Date	Topic	Text Chapter
Representing 'Real-World' Entities and Phenomena in a Computer		
01/04/21	Representation in a Nutshell	1
01/06/21	Digital Representation	2
01/11/21	Conceptual Models and Data Models: Objects and Fields / Vectors and Raster	2
01/13/21	Data Formats: Coverage Model and Shapefile	2
01/18/21	Holidays	
01/20/21	Database and Queries for Geographic Data	8
01/25/21	Unified Modeling Language and Simple Feature Specifications	8
Manipulating and Analyzing Data in Geographic Information Systems		
01/27/21	The Nature of Geographic Data and Analysis	9
02/01/21	Data Analysis I: Spatial Interpolation, KDE	12
02/03/21	Data Analysis II: Map Algebra and Buffers	10,11
02/08/21	Midterm Exam	
02/10/21	Data Analysis III: Hulls, Clusters, and Paths	12
02/15/21	Holidays	
Retrieving, Describing, and Combining Data		
02/17/21	Models and Modeling	13
02/22/21	Data Quality and Uncertainty	14
02/24/21	Location Services and Gazetteers	(7)
03/01/21	<i>Standards for Geo-Data and Services (o)</i>	14
03/03/21	<i>Geographic Information Retrieval (o)</i>	
03/08/21	<i>Conceptual Modeling and Semantics (o)</i>	
03/10/21	<i>Finals Review and Outlook (o)</i>	(15)

(o) we typically end up having time to discuss 1-3 of these optional topics

Textbook: Paul Bolstad (2016).GIS Fundamentals, 5th/6th Edition ISBN 978-1506695877

Lab overdue policy: 10% off per day, up to 5 days

Grading: Mid-term exam 30%; final exam: 35%; labs: 35% (no make-up assignments or exams)