Simon Fraser University, School of Resource & Environmental Management
Syllabus for REM 636: GIS in Environmental Management

Goals of class: For students to understand the "general principles, opportunities, and pitfalls of recording, collecting, storing, retrieving, analyzing, and presenting spatial information"

Instructor: TBD
TASC I, Room
Phone:
E-mail:
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Office hours _____

Teaching Assistant: TBD
E-mail:
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Technical Assistance: Laurence Lee
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Class meets:

REM GIS Lab: Door code ____ ____ __

Textbook: Principles of Geographical Information Systems, Peter A. Burrough and Rachael A. McDonnell, Oxford University Press, Copyright 1998

GIS Concepts and ArcView Methods, David M. Theobald, Conservation Planning Technologies, Copyright 2000

Also: Do Introduction to ArcView 3.x online, Introduction to ArcGIS online (optional)

Requirements/grading:

weekly lab work	(9 @ 7 %)	63%
article presentation		7%
project		30%

15 points will be deducted for each day that a homework is late. Homework due at beginning of class.

Week 1:	Course overview
Week 1:	Overview of GIS, start spatial data models Reading for class: none
Week 2:	Continue with spatial data models Reading: Ch 1, 2, 3 in B and Mc, Ch 1 in Theobald
Week 2:	Data input, verification, storage, and output Reading: Ch 4 in B and Mc Lab 1 handed out
Week 3:	Projections and coordinate systems Reading: Ch 2 and 3 in Theobald
Week 3:	Remotely-sensed data Lab 2 handed out: (Lab 1 due)
Week 4:	Remotely-sensed data, cont'd
Week 4:	Creating continuous surfaces from point data, global methods Reading: Ch 5 in B and Mc, Ch 9 in Theobald Lab 3 handed out (Lab 2 due)
Week 5:	Creating continuous surfaces from point data, local methods
Week 5:	THANKSGIVING DAY – NO CLASS
Week 6:	LAB SESSION for projects Lab 3a handed out (Lab 3 due)
Week 6:	Interpolation using geostatistics Reading: Ch 6 in B and Mc
Week 7:	Interpolation using geostatistics, continued Lab 4 handed out (Lab 3a due)
Week 7:	Analysis of discrete entities Reading: Ch 7 in B and Mc, Ch 7 in Theobald
Week 8:	Spatial analysis using continuous fields Reading: Ch 8 in B and Mc. Ch 11 on Theobald Lab 5 handed out (Lab 4 due)
Week 8:	Errors and quality control

	Reading: Ch 9 in B and Mc, Ch 8 inTheobald
Week 9:	Errors and quality control, continued Lab 6 handed out: (Lab 5 due)
Week 9:	Error propagation in numeric modelling Reading: Ch 10 in B and Mc
Week 10:	Error propagation in numeric modelling, cont'd Lab 7 handed out: (Lab 6 due)
Week 10:	Fuzzy sets and fuzzy geographical objects Reading: Ch 11 in B and Mc
Week 11:	Fuzzy sets and fuzzy geographical objects, cont'd Reading: Ch 12 in B and Mc Lab 8 handed out (Lab 7 due)
Week 11:	Current trends Lab 9 handed out: (Lab 8 due)
Week 12:	Project presentations
Week 12:	Project presentations (Lab 9 due)
Week 13:	Project presentations
Week 13:	Project presentations