University of Northern British Columbia

NATURAL RESOURCES PLANNING (NREM 400) – Winter 2015

Course Syllabus

Instructor:	**Dr. Chris Johnson**	Teaching Assistant:	**Kristy Rasmus**
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Class Meeting Rooms and Timing
Lecture room: 5-168
Lecture time: Wednesday & Friday 2:30-3:50
Lab room: 8-127
Lab time: Thursday 8:15-10:50

Course Description
Planning for the long-term use and conservation of the environment is a major component of natural resources management. Given the wide range of resources, values, and potential conflicts that apply to natural resources planning, the practice, profession, and study of this field is inherently interdisciplinary and draws on a broad range of knowledge and techniques from both the social and natural sciences. This is a one-semester course, thus, we cannot fully consider all of the elements of resource planning. We will, however, work together to expose many of the fundamental concepts, ideas, and skills you will require when entering the planning arena as a resource management professional. Although I expect participants to be aware of the contemporary planning initiatives, legislation, and techniques we discuss in class, the take-home message should be an appreciation for the underlying ideas. Inevitably, legislation will change; where the details and specifics are lost, the fundamental elements of resource planning will continue to serve as the framework for future planning initiatives.

Students come to this course primarily with majors in Forest Ecology and Management, Wildlife and Fisheries, Outdoor Recreation and Conservation, and Natural Resources Planning. Recognising these diverse interests and backgrounds, we will consider a full range of values and planning processes from a BC, national, and international perspective. The course is lecture based with a lab more focussed on participatory learning. However, I strongly encourage discussion and interaction within all components of the course. Through group work in the labs and discussion during lecture we will have an opportunity to learn from each other the techniques and foci inherent to our individual disciplinary training. Also, I encourage students to take a cross-disciplinary perspective when uncovering and confronting the major challenges to natural resources management, conservation, and planning.

Much of planning is about working together productively to achieve shared objectives. This often requires an appreciation or respect for alternative world views and values, some of which you might not share. Consistent with the profession, this course will force you into group situations where productive and respectful working relationships with fellow students will be the key to success.

The course is structured into a series of topics that will be approached through lecture and accompanying lab work. Where possible, labs will reinforce lecture topics and provide students an opportunity for "hands-on" problem-based learning. On a number of occasions, guest lecturers will join us in the classroom to speak about their experiences as natural resource planners and professionals.

The learning objectives for the course are:

- understanding of the generic components of the planning process;
- appreciation for a range of resource values from various cultural and socioeconomic perspectives;
- familiarity with some BC and Canadian policy and legislation that influences natural resource planning;
- working knowledge of the intent, strengths, and weaknesses of some planning approaches; and
- ability to prepare, write, and defend a strategic plan focused on the sustainable use of a number of natural resources.

Evaluation

This course has a final exam and a midterm. Assignments are progressive leading to the written submission and oral presentation of a natural resources plan. Much of the work will be conducted in groups. To facilitate a mixing of disciplines and ideas I will randomly generate group placements.

Assignment	Grade	Distribution	Due Date
GIS lab #1 – Learning spatial data	2	Individual	Jan 22
GIS lab #2 – Joining and querying data	2	Individual	Jan 29
GIS lab #3 – Spatial buffers and cartography	2	Individual	Feb 12
GIS lab #4 – HSI and corridors	3.5	Individual	Apr 9
Representing aboriginal values in plans	4	Individual	Mar 26
Timber planning	4	Individual	Mar 19
Participation: ask one intelligent question of a guest lecturer	0.15	Individual	Guest lectures/ presentations
Critique of planning process/concept	3	Individual	Apr 2
Midterm Exam	18	Individual	Feb 13
Final Exam	33	Individual	TBA
Outline of your planning process, goals, and objectives	1.35	Group	Mar 19
Written submission of resource plan	21	Group	Apr 17
'Poster' presentation of plan	3	Group	Apr 17
Presentation and defence of plan	3	Group	Apr 17

Expectations
For this class to succeed, we must all cooperate. I will provide the structure, atmosphere, and learning material that will stimulate and challenge you to grow intellectually within the confines of the course objectives and hopefully beyond. However, each student must come prepared to learn. A great way to learn is to attend lecture and lab regularly and review your notes periodically. Also, you must honour your obligations to other group members when working collaboratively on the strategic plan or other lab assignments. Peer review will serve as one component of your grade, so please attend group meetings and work hard to fulfill your commitments.

I expect all assignments to be turned in by the end of the lab on the day the assignment is due. Late assignments will be penalized 10%/day up to a maximum of 50%, after which a grade of 0 will be assigned. I will have your assignments marked within 1 week unless I am confronted by unexpected circumstances. You may face situations that will prevent timely completion of assignments. I will attempt to accommodate extensions, but out of fairness to others in the class the argument and evidence should be compelling. Acceptable reasons for late assignments might include illness for you or a direct member of your family, etc. Conflicts with other class work, sporting or entertainment events, and computer/media crashes are normally insufficient. Regardless of the argument, granting of extensions is at my discretion.

Dishonesty and Professional Conduct
Purposeful dishonesty and plagiarism is a series offence both in the classroom and the work place. Ignorance is not a valid excuse. Please consult the Calendar (2014-2015, P.43) for definitions of ***Plagiarism*** or ***Cheating*** and potential consequences. Following graduation, many of you will apply for admission to a professional association. Members of the BC College of Applied Biology (https://www.cab-bc.org/ethics-requirement-information) and the BC Association of Forestry Professionals (http://www.abcfp.ca/regulating_the_profession/bylaws/code_of_ethics.asp) are guided by standards of professional practice and codes of ethics. Those guidelines provide a solid measure of conduct, applicable to both the professional activities and private life of the member, which I urge you to adopt for this class.

Other Details
- The schedule of topics and assignments, as currently outlined in the syllabus, are subject to change with notification.
- Persons with disabilities requiring special learning approaches should contact the instructor and the Access Resource Centre early in the semester (http://www.unbc.ca/access-resource-centre).

Schedule of Course Topics and Labs

Date	Topic	Lecture/Lab
Jan 7	Introduction to course and planning	Lec – 1
Jan 9	Sustainability: the foundation of natural resources planning	Lec – 2
Jan 14	General themes in policy and planning theory	Lec – 3
Jan 15 *Lab*	GIS lab #1 – Learning spatial data	**Lab – 1**
Jan 16	Formalising the planning process: Criteria & Indicators (C&I)	Lec – 4
Jan 21	Values and world views – their role in the planning process	Lec – 5
Jan 22 *Lab*	GIS lab #2 – Joining and querying data	**Lab – 2**
Jan 23	Strategic and operational planning – historical & contemporary perspective	Lec – 6
Jan 28	Large-scale land-use zoning	Lec – 7
Jan 29 *Lab*	Introduction to planning project	**Lab – 3**
Jan 30	Strategic planning and federal legislation: SARA	Lec – 8
Feb 4	Application of SARA – exploring recovery of woodland caribou	Lec – 9: *Dale Seip*, MoE
Feb 5 *Lab*	GIS lab #3 – Spatial buffers and cartography	**Lab – 4**
Feb 6	Public involvement, consultation, and conflict	Lec – 10:
Feb 11	Aboriginal consultation and resource management – a provincial perspective	Lec – 11: *Wayne Giles*, MFLNRO
Feb 12 *Lab*	GIS lab #4 – HSI and corridors	**Lab – 5**
Feb 13	***Mid-Term Exam***	Lec – 12
Feb 16-27	**Mid-semester break – get some sleep!**	
Mar 4	Decision support tools for planning – state of the art	Lec – 13
Mar 5 *Lab*	Overview of writing goals, objectives, and strategies; work on plans	**Lab – 6**
Mar 6	Park planning, management, and conservation area design	Lec – 14
Mar 11	Timber Supply Review – measuring values and making tradeoffs to set the province's AAC	Lec – 15: *Doug Beckett*, *John Pousette*, MFLNRO
Mar 12 *Lab*	Hands-on experience conducting a timber supply review	**Lab – 7:** *Doug B.*, *John P.*, MFLNRO
Mar 13	Park planning – a provincial perspective	Lec – 16: *Scott Back*, MoE
Mar 18	Planning for oil and gas exploration and development	Lec – 17
Mar 19 *Lab*	Representing aboriginal values in plans	**Lab – 8**
Mar 20	Forest Stewardship Plans: The Forest and Range Practices Act	Lec – 18
Mar 25	Fitting wildlife and biodiversity into FRPA	Lec – 19
Mar 26 *Lab*	Working on resource plans	**Lab – 9**
Mar 27	Strategic planning for biodiversity – past and present	Lec – 20
Apr 1	Non-legislative approaches: certification	Lec – 21
Apr 2 *Lab*	Working on resource plans –cont.	**Lab – 10**
Apr 3	**Good Friday – holiday/no class**	
Apr 8	The challenge of cumulative impacts	Lec – 22
Apr 9 *Lab*	Working on resource plans –cont.	**Lab – 11**
Apr 10	*Class discussion*: criticising and improving natural resources planning	Lec – 23
Apr 15	*Group work*: finalising plan presentations	Lec – 24
Apr 16 *Lab*	Presentation of plans	**Lab – 12**
Apr 17	Course review for final exam	Lec – 25

Supplemental Readings

Date	Lec. No.	Reading
Jan 16	Lec – 4	Karjala et al 2004. Criteria and indicators for sustainable forest planning: a framework for recording Aboriginal resource and social values. Forest Policy and Economics 6:95-110.
Jan 21	Lec – 5	Sherry & Meyers 2002. Traditional environmental knowledge in practice. Society and Natural Resources 15:345-358.
Jan 23	Lec – 6	Mascarenhas & Scarce 2004. "The intention was good": Legitimacy, consensus-based decision making, and the case of forest planning in British Columbia, Canada. Society and Natural Resources 17:17-38.
Jan 28	Lec – 7	Sherry & Johnson 1999. The forgotten forest: revisiting the forestland allocation strategy. Forestry Chronicle 75:919-927.
Jan 30	Lec – 8	Sierra Legal Defence Fund. A guide to Canada's Species at Risk Act.
Mar 4	Lec – 13	Schneider et al. 2003. Managing the cumulative impacts of land uses in the Western Canadian Sedimentary Basin: A modelling approach. Conservation Ecology 7:8.
Mar 6	Lec – 14	Craighead & Cross 2004. A conservation area design (CAD) for the inland temperate rainforests of Canada.
Mar 20	Lec – 18	Forest Practices Board 2014 A decade in review: Observations on regulation of forest and range practices in British Columbia.
Apr 1	Lec – 21	Araujo et al. 2009. Why Brazilian companies are certifying their forests? Forest Policy and Economics 11:579-585.
Apr 8	Lec – 22	Johnson 2011. Regulating and planning for cumulative effects: The Canadian experience. *In* P. Kraussman & L. Harris eds. Cumulative Effects in Wildlife Management: Impact Mitigation. Taylor & Francis.
Feb 12	Lab – 5	Pullinger & Johnson 2010. Maintaining or restoring connectivity of modified landscapes: evaluating the least cost path model with multiple sources of ecological information. Landscape Ecology 25:1547-1560.
Mar 19	Lab – 8	Sherry et al. 2005. Aboriginal Forest Planning Guidebook. http://researchforest.unbc.ca/afpp/Aboriginal_Forest_Planning_Process_Final.pdf