Forestry Field Studies FOR 420 (3cr.) Spring 2009

Meeting times: TH: 12:40-2:30 pm, during spring semester. Field Practicum May 4-18.

Pre-requisites: 404 (Forest & Agr. Ecology); Co-requisites: 306 (Forest Biometry), 406 (Silviculture) which have prerequisites BOT, CHM, CSS, MTH, PHY; and FOR 201 and 204. Course is for Juniors or Seniors in Forestry / CANR.

Instructor(s): Dr. Mike Walters, Dr. David MacFarlane

Description: Course discusses a multi-criterion approach for field-based forest resource assessment, integrating ecology, silviculture, soils, biometry, harvesting, and natural lands protection. Ecological and silvicultural assessments and planning for multiple-use management of forest lands are strongly emphasized, culminating in an off-campus practicum part of which is after the semester ends.

Field exercises will be centered on a land base in the Pigeon River State Forest and various forested sites within Michigan, but also typically includes regional field experiences in other areas. Field exercises emphasize evaluating stands and ecosystems, and defining silvicultural alternatives. Selection of alternative treatments and management regimes are directed toward multiple use goals (timber, range, recreation, game), stewardship and conservation (soil, water and biotic diversity) objectives without benefit of detailed socio-economic analysis. Economic feasibility and choice of alternative treatments/regimes will be by reasonable assumption and follow common practices.

Student equipment requirements for field practicum: approved safety hat, hard-soled boots (steel toes not required), pencils, field notebook, field tablet/clipboard, ruler, calculator, text and reference books, raincoat and suitable field clothing for variable weather conditions, water bottle or substitute, insect repellent, field pack

Grading Policy: Grades are based on proportion of possible points earned standardized to 100%. Grade points are earned from classroom and field work during the semester, and field work after the semester ends. This is a hands-on class that involves mostly team work and emphasizes, real-life or near real-life scenarios, so effort, attitude and professionalism will be heavily considered during the grading process. On time attendance is required and unjustified tardiness and/or absences may result in large point penalties. Items submitted late will be reduced in grade by 10% for each class day late.

A major part of the course grade will be a compartment report that will include maps, general compartment description (including map overlays), overview of management plan for the compartment (including prioritization of stand entries), landscape management considerations, general stand prescriptions for all stands in the compartment, intensive prescriptions (with two options) for 2 stands, appendices that include raw data, supporting data from other sources, growth and yield projections, etc.. For the intensive prescriptions two well-developed options a for desired future conditions including treatment specifications and justification, growth and volume extraction predictions, and expected broad range impacts of management on ecosystem attributes are expected.

Course Schedule / Outline

Date	Topic	Location
	Unit I. Forest valuation concepts and mapping methods	
1/15	Introduction: Forest Resource Assessment: a multi-criterion approach	NR 225
1/22	Forest Land Survey and Mapping Concepts	NR 225
1/29	Landowners and Forest Values (McDonough)	NR 225
2/5	Land navigation I: Compass & pacing	Baker Woodlot
2/12	Land navigation II: GPS-training	Baker Woodlot
2/19	Forest Resource Assessment: working with Maps	Olds Hall 12
2/26	Forest Land Survey and Mapping: Closed Traverse	Baker Woodlot
3/5	Forest Land Survey and Mapping: Map-Making	Olds Hall 12
3/12	Spring Break	
	Unit II. Tree & stand valuation and forest & site potential	
3/19	Tree valuation and log grading	
3/26*	Marking, timber sale semester-long lab	
4/2	Assessing Forest Site Potential, Site Index Lab	
4/9*	Marking, timber sale semester-long lab	
4/16*	Marking, timber sale semester-long lab	
4/23*	Marking, timber sale semester-long lab	
	III. Field camp Preparation	
4/30	Preliminary site mapping with GIS and Air-photo interpretation	Olds Hall 12
5/6	**Final Exam**	Olds Hall 12
	IV. Field Camp	
5/10	Depart from MSU Campus; Move into Pigeon River Staff House	
5/11	Pigeon River Values- Landowners and Forest Values assessments: interviews, discussion groups	
5/12	Logistics and preliminary reconnaissance & stand measurements in Team Management areas. Stand Prioritization for more detailed measurements.	
5/13	Detailed compartment measurements, analysis, plan drafts	
5/14	Detailed compartment measurements, analysis, plan drafts	
5/16	Detailed compartment measurements, analysis, plan drafts	
5/17	Plan final writing, Present Management Plans in evening	
5/18-5/23	Travel to sites throughout Michigan, Regional tour of forest ecosystems, silviculture and operations. completion of Marking, timber sale semester-long lab	
5/24	Break Camp- return to MSU campus	

*exact time and date of Marking, timber sale semester-long lab will depend on setting times when both students and participants are available and will be determined. Extra out of class time for this will be deducted from the "after the semester" portion of the class.