

FORS 595: Seminar on Forest Growth Modeling

Spring 2016

Instructor: David Affleck, CHCB 430, 406-243-4186

Credits: 1 for seminar participation; 2 if you would like to undertake a project

Schedule: 1.5 hrs/week in February & March (Wednesdays 11 am – 12:30 pm in Clapp 452)

Course Objectives:

By the end of this course you will:

- 1) Understand the fundamentals of forest growth and yield modeling
- 2) Appreciate the strengths and limitations of alternative forest growth modeling strategies
- 3) Be able to evaluate the utility of tree and stand growth models for diverse applications
- 4) Be familiar with the directions in which current research in forest growth modeling is extending
- *5) Know how to run the Forest Vegetation Simulator

Format:

Discussion of assigned readings from the literature. Readings will be drawn from primary and secondary literature, and from current and historical sources. Initially I will assign the readings; as the course progresses, your fellow students will select readings, and lead discussions.

Schedule:

Week	Topics
Feb 1	Forest growth models: empirical, statistical, process-based, stand-level, tree-level.
Feb 8	Factors influencing growth 1: competition
Feb 15	Factors influencing growth 2: site
Feb 22	Components of growth models, data requirements, growth functions
Feb 20	Stand-level growth modeling (DFSIM or PTAEDA)
Mar 7	Distance-independent growth modeling (FVS)
Mar 14	Distance-dependent growth modeling (TASS)
Mar 21	Applications 1: carbon, biomass, timber yield projection
Mar 28	Applications 2: silvicultural planning and assessment (for wildlife, fire hazard reduction)