M.Sc. Assistantship in Modelling Response to Silvicultural Treatments

The Forest Growth & Yield Lab is seeking a graduate student at the M.Sc. level for an exciting project in forest simulation modelling. The goal of this project is to evaluate competing models that are parameterized for the boreal forests of western Canada and their ability to simulate partial disturbances at the tree and stand level. This exciting, contemporary project involves collaboration with other faculty within the University, scientists within the Governments of Alberta and Canada, and applied research centers in Alberta and elsewhere. Funding sources include the forest industry and the Forest Resource Improvement Association of Alberta.

Within forest science there is a long history of development and application of measurement, analysis, and modelling techniques to answer fundamental questions about forest ecosystem development in response to disturbances as well as in application in forest management to meet professional obligations and government regulations for sustainable forest management. This research project will use long-term data sets from experiments in forest thinning and regenerated forest stand response to silviculture treatment to evaluate and improve tree and forest models. The selected student also can be involved in other projects, including the collection and analysis of terrestrial and aerial remote sensing data to characterize individual-tree and stand structure to assess ecosystem values, including an array of ecosystem services.

The successful applicants will have strong written communication and computational skills. Prior experience participating in field research, experience with R and LiDAR data sets, is a plus. A related prior degree(s) and/or work experience in a related field would be an advantage. Assistantships come with a competitive, renewable 12-month stipend and support for research activity, including office, computing, field expenses, and conference travel. Foreign graduate students residing in Canada are eligible for public health insurance at no cost.

The Alberta School of Forest Science and Management (https://bit.ly/3mJwsrQ) recently celebrated the 50th Anniversary of forestry Program. Located within the Faculty of Agriculture, Life, and Environmental Sciences, the School emphasizes integration of ecological, economic, and social forestry research, education, and knowledge delivery. The University of Alberta is an internationally recognized research university, with over 40,000 students from 156 countries, and is a leader in education, and innovation. Located in Edmonton, along the North Saskatchewan River valley and just a few hours from the Rocky Mountains, the University offers a friendly and affordable environment with diverse social and outdoor recreation opportunities.

Please contact Dr. Robert Froese (refroese@ualberta) if you are interested or would like to know more. To apply, please email Dr. Froese your CV, GPA, GRE scores (if available) with a cover letter that includes a description your research interests and previous research experience. Applications will be reviewed immediately, and we will continue to accept applications until the positions are filled.