Quantitative skills are increasingly important in the conservation and management of populations. This 1 hour seminar course, led by participating students, will cover a wide range of quantitative topics allowing students to become more effective at quantitative methods in ecology. The course outline is to meet once a week (~1-1.5 hours) to discuss selected readings and try different exercises related to the topics in software such as R, BUGS (e.g., WinBUGS and OpenBUGS), JAGS, MLwiN, and Netica. Topics for the semester will be decided on by the participants at the beginning of the semester; however, the first three meetings will discuss readings on different statistical paradigms in the ecological literature (i.e., Null Hypothesis Testing, Information Theoretics, and Bayesian models) with particular reference to maximum likelihood estimation. Other possible topics include Markov Chain Monte Carlo, Hierarchical Models, Multilevel Models, Data Cloning, Bayesian Belief Networks, Integrated Population Models, Bayesian Multi-model Inference, General Simulation Models, and any other topic concerning quantitative ecology.

This is a great opportunity to increase “quantitative confidence” and stay up on new methods or figure out methods available to best handle your data for your project. By participating, we hope students become increasingly more capable and aware of mathematical applications to their own sub- disciplines, and develop a cohort with whom they can consult and collaborate with on quantitative issues.

Questions about the seminar should be directed to: Greg Anderson (gba@vt.edu), Pete Laver (plaver@vt.edu) or Dana Morin (danamorinsdsu@gmail.com).