

**Dalhousie University
Faculty of Agriculture
Graduate Module Course**

Aquaculture Genomics

Instructor: Dr. Sarah Stewart-Clark

Office: Haley 100-12

E-mail: sarah.stewart-clark@dal.ca

Phone: 902 893 8072

Schedule: August 11th- August 26

Time: 5 days from 10-4 (a mixture of lectures, discussions, readings and short assignments, dates to be decided)

Location: Haley 116

Module Description

This module will consist of lectures and group discussions on current biotechnology used in the aquaculture sectors. The theory behind sample preservation, extraction, amplification, sequencing, genotyping, cloning and GMO technology will be presented so that students will have a sound understand of the theoretical basis for the genetic techniques that are being used in the aquaculture industry.

Requirements

Graduate students with interests in genomics and aquaculture will be given a priority.

Module Content

The module will include 5 weeks of one hour lectures and one hour discussion periods. The content will focus on the molecular structures and biochemistry of RNA, DNA and proteins. This module will focus on how we have created the techniques that we use in molecular biology by manipulating the molecular structures of RNA, DNA and protein. The lecture will convey background information and the discussion group will focus on discussing the use of these techniques in the aquaculture sector. The students will choose one technique to create a review paper on for the class.

Participation (20%), Review Paper (50%) Discussion Question Answers (30%)

Participation is evaluated on the basis of contributions to discussions in meetings.