

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

---

**Molecular Techniques Used in Aquaculture**

---

**Instructor: Dr. Sarah Stewart-Clark**  
**Office: Haley 100-12**  
**E-mail: sarah.stewart-clark@dal.ca**  
**Phone: 902 893 8072**  
**Schedule: October-November**  
**Time: one 4 hour lab a week plus 1 hour discussion of results**  
**Location: Haley 218**

**Module Description**

This module will consist of hands on laboratory activities of current biotechnology used in the aquaculture sectors. The techniques included will be DNA, RNA and protein extractions, amplification with PCR and qPCR, cDNA synthesis, agarose gel electrophoresis, sequencing and any technique that students need to know for their MSc research.

**Requirements**

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

**Module Content**

The module will include 5 weeks of Four hour labs per week and one hour discussion periods. The content will focus on the application of molecular techniques with a variety of samples. This module will focus on bringing students up to date on the latest techniques and equipment used in molecular biology research. A final lab report will be written up following each lab. Students are encouraged to use their own samples if possible. If not we will provide samples for them to complete each technique.

Participation (20%), Lab reports (80%)

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