



Student Name: \_\_\_\_\_ Banner Number \_\_\_\_\_

## Certificate in Genetics Checklist

Application for the Certificate in Genetics should be undertaken by graduating students in their **final year** of studies. The Certificate will be handed out at graduation and shown on a student's transcript.

**Note:** It is the responsibility of students to complete the required courses, and to provide the departmental Certificate Coordinator with confirmation (using this checklist) that the necessary courses have been taken usually before the last day of classes in their final year of study.

### Certificate Coordinators

Melanie Dobson (Biochemistry and Molecular Biology) dobson@dal.ca 494-7182, Tupper 10J

Elizabeth Welsh (Biology) ewelsh@dal.ca 494-7110, LSC 3130

### Certificate requirements:

1. A minimum grade of a **B-** is required in **four** mandatory courses:

- BIOL 2020.03: Cell Biology \_\_\_\_\_
- BIOL 2030.03: Genetics and Molecular Biology \_\_\_\_\_
- BIOC 2300.03: Introduction to Biochemistry \_\_\_\_\_
- BIOC 3400.03: Nucleic Acid Biochemistry and Molecular Biology \_\_\_\_\_

2. A minimum grade of **B-** in **12 credit hours** chosen from the following list of courses. At least 6 credit hours must be at the 4000 level.

#### 2000 level

- BIOL 2040.03: Evolution \_\_\_\_\_

#### 3000 level

- BIOL 3036.03: Transgenic Organisms \_\_\_\_\_
- BIOL/MARI 3042.03: Molecular Ecology \_\_\_\_\_
- BIOL 3044.03: Ecological Genetics \_\_\_\_\_
- BIOL 3046.03: Molecular Evolution \_\_\_\_\_
- BIOL 3102.03: Microbial Eukaryotes: Biodiversity and Evolution \_\_\_\_\_
- MICI 3114.03: Virology \_\_\_\_\_
- NESC 3670.03/PSYO 3670.03: Genes, Brain and Behaviour \_\_\_\_\_

**4000 level** At least 6 credit hours must be at the 4000 level.

- BIOC 4010.03: Bioinformatics \_\_\_\_\_
- BIOC 4027.03/MICI 4027.03: Molecular Mechanisms of Cancer \_\_\_\_\_
- BIOC 4403.03: Genes and Genomes \_\_\_\_\_
- BIOC 4404.03: Gene Expression \_\_\_\_\_
- BIOC 4501.03: Medical Biotechnology \_\_\_\_\_
- BIOC 4835.03/BIOL 4035.03: Human Genetics \_\_\_\_\_
- MICI 4114.03: Advanced Topics in Molecular and Medical Virology \_\_\_\_\_
- MICI 4033.03: Advanced Microbial Genetics \_\_\_\_\_

3. Other required courses

- CHEM 2441.03, **or** CHEM 2401.03 and CHEM 2402.03 \_\_\_\_\_

4. A minimum grade of **B-** in **3 credit hours** or more of independent research on a topic involving molecular genetics, transmission genetics or population genetics. Students should confirm with the department's Certificate Coordinator that the research topic qualifies for the Certificate prior to the start of the research course.

- BIOC 4001.03 Special Topics \_\_\_\_\_
- BIOC 4604.03 and BIOC 4605.03 Research project I and II \_\_\_\_\_
- BIOL 4900.06 Honours Research and Thesis \_\_\_\_\_
- BIOL 4901.03 and BIOL 4902.03 Honours Research and Thesis I and II \_\_\_\_\_
- BIOL/MARI 4806.03 Special Topics \_\_\_\_\_
- BIOL/MARI 4807.03 Special Topics \_\_\_\_\_

5. Title of research project. \_\_\_\_\_

Supervisor's Name and Department \_\_\_\_\_

Provide a brief summary (maximum of 250 words) of your genetics research project in the box below.

6. Approved by \_\_\_\_\_  
*Signature of Genetics Certificate Coordinator*

Date \_\_\_\_\_