

Student Name _____ Banner Number _____

Certificate in Genetics Checklist

(revised Oct 2018)

Enrolment in the Certificate in Genetics program

- 1) Undertaken by students in their third year of studies and is a 2-step process..
- 2) Students must meet with the Genetics Certificate Coordinator for their Degree Program to obtain preliminary approval for the proposed research component.
- 3) Students must declare online their intent to graduate with the Certificate. This declaration must be made on or before the deadline set for declaring the intention to graduate in the final year of studies.

Completion of the Certificate in Genetics

- 1) Requires final approval of the completed research component by the Genetics Certificate Coordinator. (**Note:** students may receive an email from the Registrar's Office in December asking them to contact the Certificate Coordinator to confirm that the research component has been approved. There is no need to do so provided you have received the preliminary approval).
- 2) For final approval, the completed checklist (including a summary of the completed research) must be submitted to the Genetics Certificate Coordinator for the student's Degree Program on or before the last day of classes prior to graduation.
- 3) The Certificate will be awarded to students upon graduation from their undergraduate degree program and completion will be indicated on a student's transcript.

Note: It is the responsibility of students in the Certificate Program to complete the required courses, and to provide the Certificate Coordinator for their Degree Program with their completed checklist (including a summary of the completed research) on or before the last day of classes in their final term of study.

Certificate Coordinators

Biochemistry & Molecular Biology - Melanie Dobson (dobson@dal.ca) 494-7182, Tupper Rm 10-J2

Biology - Debra Grantham (grantham@dal.ca) 494-2464, LSC Rm 6089

Medical Sciences - Ian Weaver (ian.weaver@dal.ca) 494-1133, LSC Rm 3340

Microbiology & Immunology - Lois Murray (lois.murray@dal.ca) 494-6933, Tupper Rm 10-L2

Psychology & Neuroscience - Ian Weaver (ian.weaver@dal.ca) 494-1133, LSC Rm 3340

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.

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 3037.03: Life Rewritten: Applications and Implications of Gene Editing and Synthetic Biology
- 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
- MICI 3119.03: Physiology of the Prokaryotic Cell
- NESC/PSYO 3670.03: Genes, Brain and Behaviour

4000 level

- BIOC 4010.03: Bioinformatics
- BIOC/MICI 4027.03: Molecular Mechanisms of Cancer
- MICI 4033.03: Advanced Microbial Genetics
- MICI 4114.03: Advanced Topics in Molecular and Medical Virology
- BIOC 4403.03: Genes and Genomes
- BIOC 4404.03: Gene Expression
- BIOC 4501.03: Medical Biotechnology
- BIOC 4835.03/BIOL 4035.03: Human Genetics
- NESC 4670.03: Behavioral Neuro(epi)genetics and Genomics

3. Other required courses (either of these are prerequisites for BIOC 3400.03)

- CHEM 2441.03 Foundations of Organic and Biological Chemistry **or**
- CHEM 2401.03 Introductory Organic Chemistry: Structure, Concepts of Mechanisms and Spectroscopy **and** CHEM 2402.03 Introductory Organic Chemistry: Reactivity of Functional Groups

4. A minimum grade of B- in 3 credit hours or more of independent research on a topic involving microbial genetics, molecular genetics, transmission genetics or population genetics. Co-op Work Terms are not applicable. The research topic must be pre-approved by the Certificate Coordinator for your Degree Program prior to the start of the research course by submitting your research proposal to the Certificate Coordinator. If you change research topics or approaches these changes must be approved by the Coordinator to ensure eligibility for the Certificate. **Grki kdrng'tgugctej "eqwtugu'ctg'hkugf "dgrny 0**

- BIOC 4001.03 Special Topics in Biochemistry
- BIOC 4604.03 Research Project I
- BIOC 4605.03 Research Project II
- BIOL/MARI 4806.03 Independent Research I in Biology or Marine Biology
- BIOL/MARI 4807.03 Independent Research II in Biology or Marine Biology
- BIOL/MARI 4809.03 Independent Research III in Biology or Marine Biology
- BIOL/MARI 4811.03 Special Topics in Biology or Marine Biology
- BIOL/MARI 4900.06 Honours Research and Thesis
- BIOL/MARI 4901.03 Honours Research and Thesis I
- BIOL/MARI 4902.03 Honours Research and Thesis II
- MICI 4700X/Y.06 Directed Research Project
- MICI 4701.03 Advanced Topics in Microbiology and Immunology
- MICI 4702.03 Advanced Topics in Microbiology and Immunology
- MICI 4900X/Y.06 Honours Research and Thesis
- MICI 4901.03 Honours Research and Thesis
- MICI 4902.03 Honours Research and Thesis
- NESC/PSYO 4501.03 and 4502.03 Honours Thesis (formerly 4500X/Y.06)
- SCIE 4101.03 and SCIE 4102.03 Directed Project in Medical Sciences (formerly SCIE 4100X/Y.06)
- SCIE 4901.03 and SCIE 4902.03 Honours Research and Thesis (formerly SCIE 4900X/Y.06)

Title of Research Project: _____

„Supervisor's Name and Department: _____

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6. Provide a brief summary of the research you completed or attach the abstract for your final report.