

Biochemistry

This section presents the requirements for programs in:

- **M.Sc. Biology with Collaborative Specialization in Biochemistry**
- **M.Sc. Chemistry with Collaborative Specialization in Biochemistry**
- **Ph.D. Biology with Collaborative Specialization in Biochemistry**
- **Ph.D. Chemistry with Collaborative Specialization in Biochemistry**

M.Sc. Biology with Collaborative Specialization in Biochemistry (5.0 credits)

Requirements:

1. 1.0 credits in:	1.0
BIOL 5002 [0.5]	Seminar in Biochemistry I
BIOL 5004 [0.5]	Advances in Applied Biochemistry
4. 4.0 credits in:	4.0
BIOL 5909 [4.0]	M.Sc. Thesis (in the specialization, including successful oral defence)
Total Credits	5.0

M.Sc. Chemistry with Collaborative Specialization in Biochemistry (5.0 credits)

Requirements:

1. 1.0 credit in:	1.0
CHEM 5800 [0.5]	Seminar in Biochemistry I
CHEM 5806 [0.5]	Advances in Applied Biochemistry
2. 0.5 credit in:	0.5
CHEM 5810 [0.5]	Seminar I
3. 0.5 credit in:	0.5
CHEM 5804 [0.5]	Modern Scientific Communication
4. 3.0 credits in:	3.0
CHEM 5909 [3.0]	M.Sc. Thesis (in the Specialization)
Total Credits	5.0

Ph.D. Biology with Collaborative Specialization in Biochemistry (1.0 credit)

Requirements:

1. 0.5 credit in:	0.5
BIOL 6102 [0.5]	Seminar in Biochemistry II
2. 0.5 credit in:	0.5
BIOL 5004 [0.5]	Advances in Applied Biochemistry
or, for students who have already completed BIOL 5004, one from the following:	
BIOL 5105 [0.5]	Methods in Molecular Genetics
BIOL 5106 [0.5]	Laboratory Techniques in Molecular Genetics
BIOL 5502 [0.5]	Selected Topics in Biology
3. 0.0 credits in:	0.0

BIOL 6909 [0.0] Ph.D. Thesis (in the specialization, including successful oral defence)

Total Credits **1.0**

Ph.D. Chemistry with Collaborative Specialization in Biochemistry (3.0 credits)

Requirements:

1. 0.5 credit in:	0.5
CHEM 6800 [0.5]	Seminar in Biochemistry II
2. 0.5 credit in:	0.5
CHEM 5806 [0.5]	Advances in Applied Biochemistry
or, only for students who have already completed CHEM 5806, 0.5 credit from the following:	
CHEM 5001 [0.25]	Analytical Mass Spectrometry
CHEM 5109 [0.5]	Advanced Applications in Mass Spectrometry
CHEM 5111 [0.25]	Advanced Topics in Biomolecular Sciences
CHEM 5900 [0.5]	Directed Special Studies
3. 0.5 credit in:	0.5
CHEM 5810 [0.5]	Seminar I
4. 0.5 credit in:	0.5
CHEM 5804 [0.5]	Modern Scientific Communication
5. 1.0 credits in CHEM at the graduate level, which may include up to 0.5 credit in another discipline, with permission of the department.	1.0
6. Comprehensive examination, Part 1 (see Note below)	0.0
7. Comprehensive examination, Part 2 (see Note below)	
8. Public lecture, to precede the oral defence	
9. 0.0 credits in:	
CHEM 6909 [0.0]	Ph.D. Thesis (in the specialization)
Total Credits	3.0

Note

Comprehensive examination Part 1 examines the depth and breadth of knowledge in the student's own research area and is normally completed in the third term of registration.

Comprehensive examination Part 2 involves the submission of a research proposal that is both novel and of a sound scientific basis that may be loosely related to the thesis research of the student but not a topic that the student has investigated in any manner. The research proposal will be submitted to a committee for oral defense and is normally completed in the ninth term of registration.

Failure to pass either part of the comprehensive examination will result in deregistration from the graduate program.

Students are required to participate in Thesis Advisory Committee (TAC) meetings in terms 2, 5, 8, and 11. If students are unable to defend their dissertation by term 12, further TAC meetings with a plan for completion must occur in term 14 and, if required term 17. All program requirements must be completed within 18 terms (6 years).

Regulations

See the General Regulations section of this Calendar, and the regulations pertaining to the participating units offering this specialization.

Admission

Admission to the collaborative program in Biochemistry is available to students who are admitted in one of the participating programs. To apply to one of the participating programs, please visit the Faculty of Graduate and Postdoctoral Affairs Admissions page.