3 Units

HONOURS BSC BIOCHEMISTRY AND BASC CHEMICAL ENGINEERING (BIOTECHNOLOGY)

Biochemistry

Biochemistry is the chemistry of life. It provides the foundation for understanding all biological processes as well as the molecular basis and treatment of human disease.

The biochemistry bachelor's provides you with the education you need to play a leading role in new and exciting areas of medical research. You will be exposed to cutting-edge research and knowledge. Our program prepares you for graduate studies and for an academic or research career in the medical sciences. What's more, biochemistry provides an excellent foundation for further studies in medicine and other areas of health care.

You can choose an Honours BSc in Biochemistry, a major or a minor.

If you want to pursue a career in experimental biochemistry, choose the Honours program. If you prefer a basic biochemistry education, choose a major. And if you want to focus on another discipline but are interested in biochemistry, choose a minor.

If you have a particular interest in microorganisms and the role that the immune system plays in health and disease, you can also choose an Honours BSc in biochemistry with an option in microbiology and immunology. We also offer an integrated biotechnology program that lets you combine studies in biochemistry and chemical engineering and receive both a BSc in biochemistry and a BASc in chemical engineering in five years.

As for the language of instruction, compulsory courses and many optional course units are available in either English or French.

If you choose the Honours in Biochemistry, you have the opportunity to complete a full-year research project under the supervision of a professor from the departments of Chemistry and Biomolecular Sciences, Biology, Physics, or Biochemistry, Microbiology and Immunology, or under the supervision of an affiliated principle investigator from one of the many research institutes in the National Capital Region. Given the breadth of research expertise within our program, you can conduct research in many areas of modern biomedicine, including biochemistry, microbiology, immunology, chemical biology, molecular biology, cell biology, proteomics, genomics, systems biology and bioinformatics.

Chemical Engineering

Chemical engineering is at the intersection of many disciplines, linking knowledge of basic and applied sciences, economics, and health and safety. Chemical engineering graduates use a series of operations to sustainably process raw natural materials into finished products. They work in any number of industries, and during their careers, they may face a variety of challenges, including optimizing processes, monitoring pollution, converting renewable energy, processing foods and drugs, and manufacturing new materials.

This program is offered in English and in French.

Program Requirements

ENG 1112 Technical Report Writing

The minimum CGPA required to be on good academic standing is 6.0.

Co-operative education is available with this program.

The French immersion stream is available with this program.

Requirements for this program have been modified. Please consult the 2023-2024 calendars (https://catalogue.uottawa.ca/en/archives/) for the previous requirements.

Basic Skills

ENG 1112	rechnical Report Writing	3 Units
Compulsory I	First-Year Courses:	
BIO 1130	Introduction to Organismal Biology	3 Units
BIO 1140	Introduction to Cell and Molecular Biology	3 Units
CHG 1125	Chemical Engineering Fundamentals ¹	3 Units
CHG 1371	Numerical Methods and Engineering Computation in Chemical Engineering	3 Units
CHM 1311	Principles of Chemistry	3 Units
CHM 1321	Organic Chemistry I	3 Units
GNG 1103	Introduction to Engineering Design	3 Units
GNG 1105	Engineering Mechanics	3 Units
ITI 1120	Introduction to Computing I	3 Units
MAT 1320	Calculus I	3 Units
MAT 1322	Calculus II	3 Units
MAT 1341	Introduction to Linear Algebra	3 Units
PHY 1122	Fundamentals of Physics II	3 Units
Compulsory	Second-Year Courses:	
BCH 2333	Introduction to Biochemistry	3 Units
BIO 2133	Genetics	3 Units
CHM 2120	Organic Chemistry II	3 Units
CHM 2123	Laboratory of Organic Chemistry II	3 Units
CHM 2330	Physical Chemistry: Introduction to the Molecular Properties of Matter	3 Units
CHM 2354	Analytical Chemistry	3 Units
MAT 2384	Ordinary Differential Equations and Numerical Methods	3 Units
3 course unit	s from:	3 Units
ECO 1192	Engineering Economics	
GNG 2101	Introduction to Product Development for Engineers and Computer Scientists	
Compulsory 7	Third-Year Courses:	
BCH 3120	General Intermediary Metabolism	3 Units
BCH 3125	Protein Structure and Function	3 Units
BCH 3170	Molecular Biology	3 Units
BCH 3346	Biochemistry Laboratory II	3 Units
BCH 3356	Molecular Biology Laboratory	3 Units
BIO 3124	General Microbiology	3 Units
BIO 3153	Cell Biology	3 Units
CHG 2312	Fluid Flow	3 Units
CHG 2314	Heat Transfer Operations	3 Units
CHG 2317	Introduction to Chemical Process Analysis and Design	3 Units

3 course unit from: HIS 2129 Technology, Society and Environment Since 1850 PHI 2394 Scientific Thought and Social Values Compulsory Fourth-Year Courses: BCH 4172 Topics in Biotechnology 3 BCH 4932 Biochemistry Seminar 2 3 CHG 3111 Unit Operations 3 CHG 3112 Process Synthesis, Design and Economics 3 CHG 3121 Chemical Engineering Practice 3 CHG 3127 Chemical Reaction Engineering 3 CHG 3127 Chemical Reaction Engineering 3 CHG 3316 Transport Phenomena 3 CHG 3316 Transport Phenomena 3 CHG 3326 Principles of Phase Equilibria and Chemical Reaction Equilibria 3 CHG 3335 Process Control 3 One option from the following: 9 Option 1: Honours Project BCH 4040 Honours Research - Biochemistry 3 Option 2: Honours Project Substitution 9 9 course units among the 3000 or 4000 level courses in biochemistry (BCH), biology (BIO), biopharmaceutical sciences (BPS), cellular and molecular medicine (CMM), chemistry (CHM), pharmacology (PHA), physiology (PHS), microbiology and immunology (MIC) 6 course units from: 6 BCH 4101 Human Genome Structure and Function BCH 4116 Analytical Biochemistry BCH 4122 Structural Biology of Proteins 4 BCH 4122 Pathological Biochemistry BCH 4124 Carbohydrates and Glycobiology BCH 4125 Cellular Regulation and Control BCH 4126 Structural Biology of Membranes BCH 4188 Synthetic Biology of Membranes BCH 4188 Synthetic Biology of Membranes BCH 4189 Synthetic Biology of Membranes BCH 4189 Synthetic Biology of Membranes BCH 4180 Selected Topics in Biochemistry BPS 3101 Genomics BPS 4121 Biosynthesis and Natural Product Derived Medicines BPS 4122 Advanced Chemical Biology CHM 4139 Enzyme Chemistry and Biocatalysis Compulsory Fifth-Year Courses: CHG 3337 Data Collection and Interpretation 3 CHG 4136 Chemical Engineering Laboratory 3 CHG 4331 Computer-Aided Design in Chemical Engineering CHG 4343 Computer-Aided Design in Chemical Engineering CHG 4343 Computer-Aided Design in Chemical Engineering CHG 4343 Computer-Aided Design in Chemical Engineering CHG 4341 Biochemical Engineering CHG 4	CHG 2324	Fundamentals and Applications of Chemical Engineering Thermodynamics	3 Units
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PHI 2394 Scientific Thought and Social Values Compulsory Fourth-Year Courses: BCH 4172 Topics in Biotechnology 3 BCH 4932 Biochemistry Seminar 2 3 BCH 4932 Biochemistry Seminar 2 3 CHG 3111 Unit Operations 3 CHG 3112 Process Synthesis, Design and Economics 3 CHG 3112 Chemical Engineering Practice 3 CHG 3127 Chemical Reaction Engineering 3 CHG 3305 Advanced Materials in Chemical Engineering 3 CHG 3316 Transport Phenomena 3 CHG 3326 Principles of Phase Equilibria and Chemical Reaction Equilibria CHG 3335 Process Control 3 One option from the following: 9 Option 1: Honours Project BCH 4040 Honours Research - Biochemistry 3 Option 2: Honours Project Substitution 9 course units among the 3000 or 4000 level courses in biochemistry (BCH), biology (BIO), biopharmaceutical sciences (BPS), cellular and molecular medicine (CMM), chemistry (CHM), pharmacology (PHA), physiology (PHS), microbiology and immunology (MIC) 6 course units from: 6 BCH 4110 Human Genome Structure and Function BCH 4112 Structural Biology of Proteins 4 BCH 4122 Structural Biology of Proteins 4 BCH 4123 Pathological Biochemistry BCH 4124 Carbohydrates and Glycobiology BCH 4125 Cellular Regulation and Control BCH 4126 Structural Biology of Membranes BCH 4188 Synthetic Biology 4 BCH 4120 Selected Topics in Biochemistry BPS 3101 Genomics BPS 4121 Biosynthesis and Natural Product Derived Medicines BPS 4129 Advanced Chemical Biology CHM 4139 Enzyme Chemistry and Biocatalysis Compulsory Fifth-Year Courses: CHG 3337 Data Collection and Interpretation 3 CHG 4136 Chemical Engineering Laboratory 3 CHG 4330 Process Risk Management and Sustainability 3 CHG 4343 Computer-Aided Design in Chemical Engineering CHG 4381 Biochemical Engineerin	3 course unit	from:	3 Units
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Option 2: Honours Project Substitution 9 course units among the 3000 or 4000 level courses in biochemistry (BCH), biology (BIO), biopharmaceutical sciences (BPS), cellular and molecular medicine (CMM), chemistry (CHM), pharmacology (PHA), physiology (PHS), microbiology and immunology (MIC) 6 course units from: 6 BCH 4101 Human Genome Structure and Function BCH 4116 Analytical Biochemistry BCH 4122 Structural Biology of Proteins ⁴ BCH 4123 Pathological Biochemistry BCH 4124 Carbohydrates and Glycobiology BCH 4125 Cellular Regulation and Control BCH 4188 Synthetic Biology ⁴ BCH 4300 Selected Topics in Biochemistry BPS 3101 Genomics BPS 4121 Biosynthesis and Natural Product Derived Medicines BPS 4129 Advanced Chemical Biology CHM 4139 Enzyme Chemistry and Biocatalysis Compulsory Fifth-Year Courses: CHG 3337 Data Collection and Interpretation 3 CHG 4116 Chemical Engineering Laboratory 3 CHG 4250 Plant Design Project 9 CHG 4307 Process Risk Management and Sustainability 3 CHG 4343 Computer-Aided Design in Chemical Engineering CHG 4381 Biochemical Engineering CHG 4381 Biochemical Engineering CHG 4381 Biochemical Engineering CHG 4381 Biochemical Engineering CHG engineering Law 3 One option from the following: 6			
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biochemistry (BCH), biology (BIO), biopharmaceutical sciences (BPS), cellular and molecular medicine (CMM), chemistry (CHM), pharmacology (PHA), physiology (PHS), microbiology and immunology (MIC) 6 course units from: 6 BCH 4101 Human Genome Structure and Function BCH 4116 Analytical Biochemistry BCH 4122 Structural Biology of Proteins BCH 4123 Pathological Biochemistry BCH 4124 Carbohydrates and Glycobiology BCH 4125 Cellular Regulation and Control BCH 4188 Synthetic Biology of Membranes BCH 4188 Synthetic Biology BCH 4300 Selected Topics in Biochemistry BPS 3101 Genomics BPS 4121 Biosynthesis and Natural Product Derived Medicines BPS 4129 Advanced Chemical Biology CHM 4139 Enzyme Chemistry and Biocatalysis Compulsory Fifth-Year Courses: CHG 3337 Data Collection and Interpretation 3 CHG 4116 Chemical Engineering Laboratory 3 CHG 4250 Plant Design Project 9 CHG 4307 Process Risk Management and Sustainability 3 CHG 4343 Computer-Aided Design in Chemical Engineering CHG 4381 Biochemical Engineering 3 GNG 4170 Engineering Law 3 One option from the following: 6	Option 2: H	Ionours Project Substitution	
BCH 4101 Human Genome Structure and Function BCH 4116 Analytical Biochemistry BCH 4122 Structural Biology of Proteins ⁴ BCH 4123 Pathological Biochemistry BCH 4124 Carbohydrates and Glycobiology BCH 4125 Cellular Regulation and Control BCH 4126 Structural Biology of Membranes BCH 4188 Synthetic Biology ⁴ BCH 4300 Selected Topics in Biochemistry BPS 3101 Genomics BPS 4121 Biosynthesis and Natural Product Derived Medicines BPS 4129 Advanced Chemical Biology CHM 4139 Enzyme Chemistry and Biocatalysis Compulsory Fifth-Year Courses: CHG 3337 Data Collection and Interpretation 3 CHG 4116 Chemical Engineering Laboratory 3 CHG 4250 Plant Design Project 9 CHG 4307 Process Risk Management and Sustainability 3 CHG 4343 Computer-Aided Design in Chemical Engineering CHG 4381 Biochemical Engineering 3 GNG 4170 Engineering Law 3 One option from the following: 6	biochemis sciences (I chemistry	try (BCH), biology (BIO), biopharmaceutical BPS), cellular and molecular medicine (CMM), (CHM), pharmacology (PHA), physiology	
BCH 4116 Analytical Biochemistry BCH 4122 Structural Biology of Proteins ⁴ BCH 4123 Pathological Biochemistry BCH 4124 Carbohydrates and Glycobiology BCH 4125 Cellular Regulation and Control BCH 4126 Structural Biology of Membranes BCH 4188 Synthetic Biology ⁴ BCH 4300 Selected Topics in Biochemistry BPS 3101 Genomics BPS 4121 Biosynthesis and Natural Product Derived Medicines BPS 4129 Advanced Chemical Biology CHM 4139 Enzyme Chemistry and Biocatalysis Compulsory Fifth-Year Courses: CHG 3337 Data Collection and Interpretation 3 CHG 4116 Chemical Engineering Laboratory 3 CHG 4250 Plant Design Project 9 CHG 4307 Process Risk Management and Sustainability 3 CHG 4343 Computer-Aided Design in Chemical Engineering CHG 4381 Biochemical Engineering 3 GNG 4170 Engineering Law 3 One option from the following: 6	6 course unit	s from:	6 Units
BCH 4122 Structural Biology of Proteins BCH 4123 Pathological Biochemistry BCH 4124 Carbohydrates and Glycobiology BCH 4125 Cellular Regulation and Control BCH 4126 Structural Biology of Membranes BCH 4188 Synthetic Biology BCH 4300 Selected Topics in Biochemistry BPS 3101 Genomics BPS 4121 Biosynthesis and Natural Product Derived Medicines BPS 4129 Advanced Chemical Biology CHM 4139 Enzyme Chemistry and Biocatalysis Compulsory Fifth-Year Courses: CHG 3337 Data Collection and Interpretation 3 CHG 4116 Chemical Engineering Laboratory 3 CHG 4250 Plant Design Project 9 CHG 4307 Process Risk Management and Sustainability 3 CHG 4343 Computer-Aided Design in Chemical Engineering CHG 4381 Biochemical Engineering 3 GNG 4170 Engineering Law 3 One option from the following: 6	BCH 4101	Human Genome Structure and Function	
BCH 4123 Pathological Biochemistry BCH 4124 Carbohydrates and Glycobiology BCH 4125 Cellular Regulation and Control BCH 4126 Structural Biology of Membranes BCH 4188 Synthetic Biology ⁴ BCH 4300 Selected Topics in Biochemistry BPS 3101 Genomics BPS 4121 Biosynthesis and Natural Product Derived Medicines BPS 4129 Advanced Chemical Biology CHM 4139 Enzyme Chemistry and Biocatalysis Compulsory Fifth-Year Courses: CHG 3337 Data Collection and Interpretation 3 CHG 4116 Chemical Engineering Laboratory 3 CHG 4250 Plant Design Project 9 CHG 4307 Process Risk Management and Sustainability 3 CHG 4343 Computer-Aided Design in Chemical Engineering CHG 4381 Biochemical Engineering 3 GNG 4170 Engineering Law 3 One option from the following: 6	BCH 4116	Analytical Biochemistry	
BCH 4124 Carbohydrates and Glycobiology BCH 4125 Cellular Regulation and Control BCH 4126 Structural Biology of Membranes BCH 4188 Synthetic Biology ⁴ BCH 4300 Selected Topics in Biochemistry BPS 3101 Genomics BPS 4121 Biosynthesis and Natural Product Derived Medicines BPS 4129 Advanced Chemical Biology CHM 4139 Enzyme Chemistry and Biocatalysis Compulsory Fifth-Year Courses: CHG 3337 Data Collection and Interpretation 3 CHG 4116 Chemical Engineering Laboratory 3 CHG 4250 Plant Design Project 9 CHG 4307 Process Risk Management and Sustainability 3 CHG 4343 Computer-Aided Design in Chemical Engineering CHG 4381 Biochemical Engineering 3 GNG 4170 Engineering Law 3 One option from the following: 6	BCH 4122	Structural Biology of Proteins ⁴	
BCH 4125 Cellular Regulation and Control BCH 4126 Structural Biology of Membranes BCH 4188 Synthetic Biology ⁴ BCH 4300 Selected Topics in Biochemistry BPS 3101 Genomics BPS 4121 Biosynthesis and Natural Product Derived Medicines BPS 4129 Advanced Chemical Biology CHM 4139 Enzyme Chemistry and Biocatalysis Compulsory Fifth-Year Courses: CHG 3337 Data Collection and Interpretation 3 CHG 4116 Chemical Engineering Laboratory 3 CHG 4250 Plant Design Project 9 CHG 4307 Process Risk Management and Sustainability 3 CHG 4343 Computer-Aided Design in Chemical Engineering CHG 4381 Biochemical Engineering 3 GNG 4170 Engineering Law 3 One option from the following: 6	BCH 4123	Pathological Biochemistry	
BCH 4126 Structural Biology of Membranes BCH 4188 Synthetic Biology ⁴ BCH 4300 Selected Topics in Biochemistry BPS 3101 Genomics BPS 4121 Biosynthesis and Natural Product Derived Medicines BPS 4129 Advanced Chemical Biology CHM 4139 Enzyme Chemistry and Biocatalysis Compulsory Fifth-Year Courses: CHG 3337 Data Collection and Interpretation 3 CHG 4116 Chemical Engineering Laboratory 3 CHG 4250 Plant Design Project 9 CHG 4307 Process Risk Management and Sustainability 3 CHG 4343 Computer-Aided Design in Chemical Engineering CHG 4381 Biochemical Engineering 3 GNG 4170 Engineering Law 3 One option from the following: 6	BCH 4124	Carbohydrates and Glycobiology	
BCH 4188 Synthetic Biology ⁴ BCH 4300 Selected Topics in Biochemistry BPS 3101 Genomics BPS 4121 Biosynthesis and Natural Product Derived Medicines BPS 4129 Advanced Chemical Biology CHM 4139 Enzyme Chemistry and Biocatalysis Compulsory Fifth-Year Courses: CHG 3337 Data Collection and Interpretation 3 CHG 4116 Chemical Engineering Laboratory 3 CHG 4250 Plant Design Project 9 CHG 4307 Process Risk Management and Sustainability 3 CHG 4343 Computer-Aided Design in Chemical Engineering CHG 4381 Biochemical Engineering 3 GNG 4170 Engineering Law 3 One option from the following: 6	BCH 4125	Cellular Regulation and Control	
BCH 4300 Selected Topics in Biochemistry BPS 3101 Genomics BPS 4121 Biosynthesis and Natural Product Derived Medicines BPS 4129 Advanced Chemical Biology CHM 4139 Enzyme Chemistry and Biocatalysis Compulsory Fifth-Year Courses: CHG 3337 Data Collection and Interpretation 3 CHG 4116 Chemical Engineering Laboratory 3 CHG 4250 Plant Design Project 9 CHG 4307 Process Risk Management and Sustainability 3 CHG 4343 Computer-Aided Design in Chemical Engineering CHG 4381 Biochemical Engineering 3 GNG 4170 Engineering Law 3 One option from the following: 6	BCH 4126	Structural Biology of Membranes	
BPS 3101 Genomics BPS 4121 Biosynthesis and Natural Product Derived Medicines BPS 4129 Advanced Chemical Biology CHM 4139 Enzyme Chemistry and Biocatalysis Compulsory Fifth-Year Courses: CHG 3337 Data Collection and Interpretation 3 CHG 4116 Chemical Engineering Laboratory 3 CHG 4250 Plant Design Project 9 CHG 4307 Process Risk Management and Sustainability 3 CHG 4343 Computer-Aided Design in Chemical 3 Engineering CHG 4381 Biochemical Engineering 3 GNG 4170 Engineering Law 3 One option from the following: 6	BCH 4188	Synthetic Biology ⁴	
BPS 4121 Biosynthesis and Natural Product Derived Medicines BPS 4129 Advanced Chemical Biology CHM 4139 Enzyme Chemistry and Biocatalysis Compulsory Fifth-Year Courses: CHG 3337 Data Collection and Interpretation 3 CHG 4116 Chemical Engineering Laboratory 3 CHG 4250 Plant Design Project 9 CHG 4307 Process Risk Management and Sustainability 3 CHG 4343 Computer-Aided Design in Chemical 3 Engineering CHG 4381 Biochemical Engineering 3 GNG 4170 Engineering Law 3 One option from the following: 6	BCH 4300	Selected Topics in Biochemistry	
Medicines BPS 4129 Advanced Chemical Biology CHM 4139 Enzyme Chemistry and Biocatalysis Compulsory Fifth-Year Courses: CHG 3337 Data Collection and Interpretation 3 CHG 4116 Chemical Engineering Laboratory 3 CHG 4250 Plant Design Project 9 CHG 4307 Process Risk Management and Sustainability 3 CHG 4343 Computer-Aided Design in Chemical Engineering CHG 4381 Biochemical Engineering 3 GNG 4170 Engineering Law 3 One option from the following: 6	BPS 3101	Genomics	
CHM 4139 Enzyme Chemistry and Biocatalysis Compulsory Fifth-Year Courses: CHG 3337 Data Collection and Interpretation 3 CHG 4116 Chemical Engineering Laboratory 3 CHG 4250 Plant Design Project 9 CHG 4307 Process Risk Management and Sustainability 3 CHG 4343 Computer-Aided Design in Chemical Engineering CHG 4381 Biochemical Engineering 3 GNG 4170 Engineering Law 3 One option from the following: 6	BPS 4121	•	
Compulsory Fifth-Year Courses: CHG 3337 Data Collection and Interpretation 3 CHG 4116 Chemical Engineering Laboratory 3 CHG 4250 Plant Design Project 9 CHG 4307 Process Risk Management and Sustainability 3 CHG 4343 Computer-Aided Design in Chemical Engineering CHG 4381 Biochemical Engineering 3 GNG 4170 Engineering Law 3 One option from the following: 6	BPS 4129	Advanced Chemical Biology	
CHG 3337 Data Collection and Interpretation 3 CHG 4116 Chemical Engineering Laboratory 3 CHG 4250 Plant Design Project 9 CHG 4307 Process Risk Management and Sustainability 3 CHG 4343 Computer-Aided Design in Chemical Engineering CHG 4381 Biochemical Engineering 3 GNG 4170 Engineering Law 3 One option from the following: 6	CHM 4139	Enzyme Chemistry and Biocatalysis	
CHG 4116 Chemical Engineering Laboratory 3 CHG 4250 Plant Design Project 9 CHG 4307 Process Risk Management and Sustainability 3 CHG 4343 Computer-Aided Design in Chemical Engineering CHG 4381 Biochemical Engineering 3 GNG 4170 Engineering Law 3 One option from the following: 6	Compulsory F	-ifth-Year Courses:	
CHG 4250 Plant Design Project 9 CHG 4307 Process Risk Management and Sustainability 3 CHG 4343 Computer-Aided Design in Chemical Engineering CHG 4381 Biochemical Engineering 3 GNG 4170 Engineering Law 3 One option from the following: 6	CHG 3337	Data Collection and Interpretation	3 Units
CHG 4307 Process Risk Management and Sustainability 3 CHG 4343 Computer-Aided Design in Chemical Engineering CHG 4381 Biochemical Engineering 3 GNG 4170 Engineering Law 3 One option from the following: 6	CHG 4116	Chemical Engineering Laboratory	3 Units
CHG 4343 Computer-Aided Design in Chemical Engineering CHG 4381 Biochemical Engineering 3 GNG 4170 Engineering Law 3 One option from the following: 6	CHG 4250	Plant Design Project	9 Units
Engineering CHG 4381 Biochemical Engineering 3 GNG 4170 Engineering Law 3 One option from the following: 6	CHG 4307	Process Risk Management and Sustainability	3 Units
GNG 4170 Engineering Law 3 One option from the following: 6	CHG 4343		3 Units
One option from the following: 6	CHG 4381	Biochemical Engineering	3 Units
-	GNG 4170		3 Units
-	One option fro	om the following:	6 Units
-p	Option 1:		

CHG 4901	Thesis and seminars I
CHG 4902	2 Thesis and seminars II
Option 2:	
CHG 4901	Thesis and seminars I
3 course i	units of technical electives ⁵

Option 3:

6 course units of technical electives ⁵

Electives

6 complementary electives course units at the	6 Units
undergraduate level ⁶	

Total: 189 Units

Note(s)

1

CHG 1125 must be taken during the first two years; it is recommended that this course be taken the first year.

2

This course runs from September to April.

3

The research project is highly recommended for students who intend to pursue a career in research, but a CGPA of 6.5 or greater or with a GPA of 6.5 or greater calculated from the two most recent years of full-time study in the Honours in Biochemistry program (minimum of 54 units including all compulsory 3000 level courses). This course runs from September to April.

4

This course may not be available every year.

5

Consult the list of technical electives in the regular Chemical Engineering program.

6

Complementary elective courses at the undergraduate level includes GNG 2101, GNG 4170, and GNG 4120, but excludes all courses offered by the Faculty of Science and the Faculty of Engineering as well as all courses that have a science, mathematics or engineering content. For a complete list of courses please refer to the list of complementary elective courses (https://www2.uottawa.ca/faculty-engineering/undergraduate-studies/courses-and-course-sequences/complementary-electives/) on the Faculty of Engineering website.