Executive Summary
Specialization in Biochemistry

1. Program/Major Modification Overview

The proposal is for the introduction of a Collaborative Specialization in Biochemistry. Carleton University currently has very successful undergraduate programs in Biochemistry (BSc Biochemistry and BSc Computational Biochemistry), but a need for a graduate program in Biochemistry was identified. The identified need came from two sources: 1) surveys of undergraduate students (both from Carleton and from other universities) who stated that they would have preferred to do graduate studies at Carleton in Biochemistry, but the university lacked the graduate programs, and 2) the cyclic review of the undergraduate programs in Biochemistry which found that, for further growth of the Institute of Biochemistry at Carleton University, a graduate initiative in Biochemistry was recommended.

The initial participating programs in the Collaborative Specialization in Biochemistry are:

- MSc in Biology
- PhD in Biology
- MSc in Chemistry
- PhD in Chemistry

The Specialization will appear on student transcripts and diplomas. Graduate students in the Collaborative Specialization will gain specialized knowledge on topics related to Biochemistry through two required courses and their thesis research, which will be in the area of Biochemistry. Students participating in the Collaborative Specialization will carry out their thesis research under the supervision of a faculty member that is associated with the Institute of Biochemistry. Other programs at Carleton University may join the Collaborative Specialization in Biochemistry in the future, such as Biomedical Engineering and Health Sciences.

The goals of the Collaborative Specialization in Biochemistry are to:

a) Provide graduate students with a fundamental knowledge and appreciation of many of the key concepts, methodologies, current advances and theoretical approaches used in all major areas in Biochemistry including proteomics, genomics, genetics, molecular biology, cell biology and physiology. (Depth and Breadth of Knowledge)

b) Allow graduate students to develop the ability to a) design, carry out and gather results (data) from experiments, b) interpret the results and their meaning, c) analyze and test the significance of their results and d) present their results in both written and oral forms. (Depth and Breadth of Knowledge)

c) Provide graduate students with an understanding of current methods utilized in evaluating primary and secondary sources of information, experimental design and objective data collection and analysis. Students will be able to evaluate the appropriateness of different approaches to solving problems using well established methods and techniques. (Knowledge of Methodologies)

d) Allow graduate students to develop the basic fundamental laboratory skills necessary to investigate scientific questions, including the understanding of the use and application of biochemical and molecular instrumentation and procedures, as well as statistical methodologies. (Knowledge of Methodologies)

e) Allow graduate students to develop the ability to identify the appropriate methodology to arrive at answers to critical questions in their research. Graduate students will be able to assess each method for its reliability for yielding dependable results. Graduate students in the Collaborative
Program will develop the critical problem solving capabilities, enabling them to troubleshoot and optimize methods, based on previous experimental results. (Application of Knowledge)

f) Provide graduate students in Biochemistry with the transferable skills required for employment in academia, government or industry. This includes the methodologies and specialized skills required for real-world applications and challenges (health, environment, social). (Professional Capacity/Autonomy)

g) Allow graduate students in Biochemistry to develop initiative, personal responsibility and accountability during the course of their graduate studies and to approach all aspects of their work with intellectual independence and professionalism. (Professional Capacity/Autonomy)

h) Train graduate students in Biochemistry in ethical behavior consistent with academic integrity and the use of appropriate guidelines and procedures for responsible conduct of research. (Professional Capacity/Autonomy)

i) Allowing graduate students in Biochemistry to evaluate the broader implications of applying the knowledge that they gained to particular contexts outside of their fields of study (e.g. consideration of scientific, social, ethical and political implications associated with specific patentable biotechnologies). (Professional Capacity/Autonomy)

j) Develop communication skills in the graduate students in Biochemistry to accurately and reliably, in both oral and written works, convey their Science to a broad range of audiences at all levels of understanding. Students of the Biochemistry Specialization will be able to convey the rationale, scientific background, hypothesis, objectives, methodology, results and broader conclusions of a scientific study in a clear and concise manner. (Communication Skills)

k) Provide graduate students an understanding of the limits of knowledge in Biochemistry, and how this might influence their analyses and interpretations of their results. It is the realization of these limitations that fuels further scientific research. Students will become aware of a) what questions cannot be answered given our current technology, b) how different methodologies may lead to seemingly contradictory results, c) measures of uncertainty for any given result and d) the limits of detection that specific biomolecules can be accurately measured. (Awareness of Limits of Knowledge)

The structure of the Collaborative Specialization in Biochemistry would be as a Specialization within the graduate programs of Biology and Chemistry at Carleton University and would require:

a) That graduate students within the Specialization (M.Sc., Ph.D.) conduct their thesis research, in the area of Biochemistry, under the supervision of a faculty member, within either the Department of Biology or the Department of Chemistry and associated with the Institute of Biochemistry. This could include faculty, affiliated with the Institute of Biochemistry, who work in related fields such as Toxicology, Food Science, Environmental Science, Microbiology, Molecular Biology, Genetics, Health Science, Agriculture, Biotechnology and Biomedical Engineering. The Biochemistry Specialization committee will evaluate and approve the Biochemistry thesis topics. The members of this committee will be composed of members in the Institute of Biochemistry and will include the Director of Biochemistry (a faculty member from either the Department of Biology or the Department of Chemistry) and the Graduate Advisor (preferably in the opposite Department from the Director) in Biochemistry. The thesis will have to fulfill the requirements of the home discipline (Biology or Chemistry) as well as the requirements of the Specialization.

b) That graduate students take two required courses during their degree:
   Masters
   BIOL 5002/CHEM 5800 [0.5] Seminar in Biochemistry
   BIOL 5004/CHEM 5806 [0.5] Advances in Applied Biochemistry

   Doctoral
The Seminar courses (BIOL 5002/CHEM 5800 and BIOL 6102/CHEM 6800) will be run as the same course, with different requirements for Masters students compared to PhD students. The content will be divided into two parts: the first containing lectures provided by invited internal and external speakers and the second containing seminars presented by the graduate students enrolled. The BIOL 5004/CHEM 5806 Advances in Applied Biochemistry course would be a “hands-on” two-week in lab course utilizing a current methodology in Biochemistry.

For PhD students in the Specialization in either Biology or Chemistry, the BIOL 5004/CHEM 5806 Advances in Applied Biochemistry courses would not be required for students who have already completed this course (e.g., students who have completed the Specialization in Biochemistry in their master’s degree).

2. **Current International, Provincial, and/or Provincial Profile**

Graduate programs, similar to the Collaborative Specialization in Biochemistry being proposed here, exist at many universities. However, many are fully associated with Medicine (University of Toronto, University of Ottawa). The placement of the Institute between the Departments of Biology and Chemistry at Carleton allows it to draw on faculty expertise in diverse areas such as cell biology, molecular biology, genetics, biotechnology, health science, nanotechnology and food science without a strict focus on medicine (human biochemistry) or chemistry (compound or biomolecule synthesis). This uniqueness is both a strength (broad diversity of expertise) and a weakness (expertise not specifically based in Biochemistry, but with their home Departments). Many Biochemistry graduate programs, both in Canada and abroad, are linked to medical schools and have a more human focus. The discipline, however, is much broader and encompasses such fields as toxicology, food science, environmental science, microbiology, molecular biology, genetics, health science and biomedical engineering. The Specialization in Biochemistry at Carleton would be unique in that it would provide a more “holistic” approach to biochemistry, covering areas that Biochemistry graduate programs at other Canadian universities would lack (e.g. toxicology, food science, etc.). It would also cover cross-species comparisons outside of human biochemistry not found in the more focused and narrow Biochemistry programs at other Canadian universities.

Carleton’s location in the nation’s capital provides a unique opportunity for Biochemists as many government agencies, such as Health Canada, Agriculture and Agri-Food Canada, Environment Canada, the National Research Council of Canada, the Canadian Food Inspection Agency and the Royal Canadian Mounted Police hire Biochemists as government scientists. Other institutes that have advertised for and hired Biochemists include the Canadian Security Intelligence Service (CSIS) as well as local and international companies (DNA Genotek, Spartan Biosciences, Logen Corporation, Pfizer, Gamma-Dynacare, Genome Canada, Agrisoma, Nordion, BDR Technologies, VBI Vaccines, etc.). Thus, the demand for broadly trained personnel with Biochemistry graduate degrees is expected to increase in the future.

Laboratory facilities utilized by graduate students within the Specialization would include those of the students’ Supervisors in the Biology Department, the Chemistry Department, or off campus at Institutes like Health Canada, Environment Canada, Agri-foods and Agriculture Canada, Canadian Food Inspection Agency, the National Research Council of Canada, the Royal Canadian Mounted Police or in industry.

3. **Mission and Strategic Directions**
The graduate Specialization in Biochemistry would support Carleton’s strategic themes and associated goals, as outlined in its Strategic Integrated Plan (SIP), in the following ways:

**Theme 1:** Carleton University will be known nationally and internationally for its research and teaching in programs which respond to the needs of society today and which anticipate the needs of the future.

The development of a graduate Specialization in Biochemistry would complement the strong Biochemistry undergraduate programs in existence at Carleton. The large demand by Biochemistry undergraduates for a graduate program in Biochemistry at Carleton emphasizes the need for the development of such a Specialization. Initially, a graduate Collaborative Specialization in Biochemistry would strengthen the graduate programs of both Biology and Chemistry. It would attract students to the strong research programs of faculty in both Departments. Once developed, demonstration of success of the Collaborative Specialization would lead to the development of a stand-alone graduate program in Biochemistry.

Biochemistry, being one of the most long-standing interdisciplinary programs at Carleton, would also contribute to graduate research in Biomedical Engineering, Neuroscience, Food Science, Toxicology and Health Science. It would respond to the changing needs of society as research on cures for disease, effects of environmental contaminants on human health, cellular targets of manufactured pharmaceuticals, and insights into neurodegenerative diseases is performed at the cellular, molecular and biochemical levels.

**Theme 2:** Carleton University will be known as a university that promotes research excellence and connectedness. It will be recognized as a leader in research that focuses both on tangible outcomes and the development of knowledge with longer-term impacts.

The ability to attract highly qualified graduate students in Biochemistry will enhance Carleton’s research capacity in that these students will apply their knowledge to real-world problems in human health, environmental cleanliness, food safety and nutritional value, and biocompatibility of engineered medical devices. Carleton undergraduate Biochemistry students, in the past, have also gained industrial experience in local, national and international biotech companies and are sought after by such companies. Carleton Biochemistry students have also found placement (through its Co-operative program) in the government agencies listed above. Co-op assignments have also placed Carleton Biochemistry students in laboratories at academic institutions overseas. M.Sc. and Ph.D. graduates with a Specialization in Biochemistry from Carleton University would have access to higher positions in these agencies after graduating, thus strengthening Carleton’s research profile world-wide.

**Theme 3:** Carleton University will be nationally and internationally known for being student-centered, linking its academic endeavours and student supports to empower students as productive and engaged citizens in an increasingly diverse world.

The training that undergraduates in Biochemistry receive at Carleton is known nationally (amongst Canadian universities that take on Biochemistry undergraduates as graduate students) as being outstanding. For example, Dr. Reinheart Reithmeier, a graduate of the very first Biochemistry undergraduate cohort at Carleton University in 1972, went on to become the Chair of the Biochemistry Department at the University of Toronto for many years and has also recently been elected Fellow of the Canadian Academy of Health Sciences. The hands-on experience that they receive in undergraduate laboratories allows them to master cutting edge techniques that are utilized world-wide. Co-op and exchange experiences internationally also provide learning enrichment and engagement for Carleton Biochemistry undergraduates outside of the classroom. At the graduate level, it would be no different.
The training that graduate students in Biochemistry at Carleton would receive would be comparable to that which they would receive in similar Biochemistry graduate degrees internationally. The opportunity to work with world-class faculty in Biochemistry at Carleton University at the graduate level would not only retain undergraduates who trained at Carleton, but also recruit outstanding national and international students interested in obtaining a graduate degree with a holistic approach to Biochemistry. In an increasingly diverse world, M.Sc. and Ph.D. graduates with a specialization in Biochemistry at Carleton would have the opportunity to become international leaders in the discipline and all of its related fields.

The Strategic Mandate Agreement between Carleton University and the Ministry of Training, Colleges and Universities (2014-17) recognizes ‘Life and Health Sciences’ as both an area of institutional strength as well as ‘Health Sciences’ as an area of program growth. It is specifically noted that “…Health Sciences appear consistent with Carleton’s focus and priorities” (MTCU, 2014, 13). Biochemistry is a natural focus for Health Sciences as much of the research in this field has a biochemical, molecular or cell biology basis. Thus a Specialization in Biochemistry is aligned with Carleton’s Strategic Mandate Agreement recognizing the “Life and Health Sciences”.

Outside of Health Science, Carleton’s Biochemistry graduate Specialization would encompass other broad areas including toxicology, food science, environmental science, microbiology, molecular biology, genetics, and biomedical engineering.

4. Impact on Other Programs

a. Contributions to other programs at Carleton

It is expected that the proposed new Specialization in Biochemistry would increase the graduate student enrollments in the Departments of Biology and Chemistry. In the future, this will also increase the graduate student intake for faculty members hired directly into the Institute of Biochemistry. Currently, only a small fraction of students graduating with a B.Sc. in Biochemistry continues their graduate studies at Carleton. The number would increase with the introduction of the new Specialization in Biochemistry. At the undergraduate level, Carleton offers a BSc (Honours) Biochemistry (current enrolment 108), BSc (Major) Biochemistry (current enrolment 56) BSc (Honours) Biochemistry and Biotechnology (current enrolment 46) and Computational Biochemistry (current enrolment 4).

b. Contributions from other programs at Carleton

No additional contribution is expected from other academic programs beyond Biology and Chemistry. However, in the future, if other program (e.g., Health Sciences, Biomedical Engineering) wish to contribute to the Specialization, this would be welcomed. This could include the provision of Instructors for the core courses of the Specialization. Initially, the Specialization would require Instructors and lab space for the Practical Course (BIOL 5004/CHEM 5906 [0.5] Advances in Applied Biochemistry), which has already been delivered for the past 5 years (as BIOL 5004/CHEM 5900). If the program expands, faculty hired directly into the Institute of Biochemistry (and associated office and lab space), may be required.

5. Students

Currently, Carleton does not offer a Biochemistry program at the graduate level but it has strong, well-subscribed undergraduate programs. Many of the graduates from the undergraduate programs in
Biochemistry have all gone on to do graduate degrees in Biochemistry at other universities. Many have professed that they would have preferred to have done their graduate degree at Carleton, but had to leave to other universities because Carleton does not have a graduate program in Biochemistry (testimonials from past students can be provided). Those who have moved to other universities wanted “Biochemistry” to appear on their transcripts and diplomas as they felt that this is what their research specialized in. The introduction of a graduate level Specialization in Biochemistry will: a) increase the enrolment in the graduate programs of the Departments of Biology and Chemistry at Carleton University, and b) assist Carleton University with its retention and recruitment strategy. Assessment of the Specialization in Biochemistry, after two to three years from its creation, will determine the success of this recruitment and determine what it would require for future growth.

Many graduate students in the Biology and Chemistry Departments do their research projects within the field of Biochemistry with supervisors from the Institute of Biochemistry (Departments of Biology and Chemistry) and would like this designation to appear on their graduate transcripts and diplomas. The Specialization requires specific learning within the field of Biochemistry. Faculty within the Institute of Biochemistry also do research in the field of Biochemistry and have declared that they would prefer to take on Biochemistry students as graduate students as their research programs are in the fields of biochemistry, molecular biology, genetics and cell biology (all of which require Biochemistry).

The Specialization will target students with an interest in macromolecular (proteins, nucleic acids (DNA and RNA), lipids and carbohydrates) structure and function, their recognition of and interaction with small molecules (e.g. such as drugs) and their role in life history (growth, development, heredity), resistance to stressors (toxins, environmental changes) and disease (i.e. when macromolecules are defective). It will also draw interest from students who would like to utilize such macromolecules for the development of biotechnology (e.g. antibodies, aptamers, drug delivery). Given the numbers of students (both at domestic and at international institutions) who choose to do graduate work in Biochemistry, the demand for the Specialization would be high.

The degree designation is that of the admitting program (Biology or Chemistry), with Specialization in Biochemistry (which would appear on their graduate degrees and transcripts). The designation officially recognizes a more accurate representation of a student’s graduate expertise and would be of benefit to the student when seeking employment in the field of Biochemistry following graduation.

5 a) Projected enrolments

The projected enrolments for the Specialization in Biochemistry is based on the graduate enrolments in both the Departments of Biology and Chemistry. Given that a small proportion of the Faculty in each Department are associated with the undergraduate Biochemistry program and that a small proportion of the graduate students (assumed to be 20%) that they take on will have an interest in the Specialization in Biochemistry, the projected enrolments reflect these numbers. The numbers predicted are also based on the number of undergraduate students in the Biochemistry programs at Carleton and that a certain small percentage of them will be interested in continuing on into graduate studies in Biochemistry. The percentage is based on the number of students in an Honours program with the CGPA sufficient enough (9/12 or B+) to enroll in graduate studies. The numbers in Table 1 are projected new incoming student enrolments to the Specialization at Carleton. The first number is the projected number of Biology and Chemistry (combined) Masters students and the second number is the projected number of Biology and Chemistry (combined) Doctoral students (i.e. Masters/Doctoral). The numbers represent new additional students that would not have come to Carleton if were not for the Collaborative Specialization.
Table 1: Projected enrolments (enrol.)

<table>
<thead>
<tr>
<th>Year</th>
<th>Intake Domestic</th>
<th>Enrol.* Domestic</th>
<th>Intake International</th>
<th>Enrol.* International</th>
<th>Enrol. Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1 (2017)</td>
<td>11/4</td>
<td>11/4</td>
<td>2/0</td>
<td>2/0</td>
<td>15/4</td>
</tr>
<tr>
<td>Year 2 (2018)</td>
<td>12/5</td>
<td>23/9</td>
<td>2/0</td>
<td>4/0</td>
<td>31/9</td>
</tr>
<tr>
<td>Year 3 (2019)</td>
<td>14/6</td>
<td>37/15</td>
<td>3/0</td>
<td>7/0</td>
<td>51/15</td>
</tr>
<tr>
<td>Year 4 (2020)</td>
<td>15/7</td>
<td>52/22</td>
<td>3/0</td>
<td>10/0</td>
<td>72/22</td>
</tr>
<tr>
<td>Year 5 (2021)</td>
<td>17/8</td>
<td>58/26</td>
<td>3/1</td>
<td>11/1</td>
<td>80/28</td>
</tr>
<tr>
<td>Year 6 (2022)</td>
<td>18/9</td>
<td>64/30</td>
<td>3/1</td>
<td>12/2</td>
<td>88/34</td>
</tr>
</tbody>
</table>

*Assuming transfers from Masters to Doctoral studies and graduation of students from four years prior.

5 b) Student Funding (Graduate programs only)

Student funding, provided by the Dean of the Faculty of Graduate and Postdoctoral Affairs (FGPA), would be the standard financial package provided to the graduate students upon entering their degree program in either Biology or Chemistry. The Collaborative Specialization, does not change student funding, except that it may increase enrolments in these degree programs.

5 c) Career paths of graduates

Potential career paths of graduates from the Biochemistry Specialization could those found in Table 2.

Table 2: Potential career paths of graduates from the Biochemistry Specialization

<table>
<thead>
<tr>
<th>Educational Opportunities</th>
<th>Public Sector Employment Opportunities</th>
<th>Private Sector Employment Opportunities</th>
<th>Non-Profit Organizations</th>
</tr>
</thead>
<tbody>
<tr>
<td>High School Teacher (Biology, Chemistry)</td>
<td>Health Canada</td>
<td>Industry: includes biotechnology and pharmaceutical companies (e.g. AstraZeneca, Aventis, Bayer, Eli Lilly, Genpharm, Genzyme, GlaxoSmithKline, Hoffmann-La Roche, Merck Frosst, Pfizer)</td>
<td>Heart and Stroke Foundation of Canada</td>
</tr>
<tr>
<td>Graduate Programs</td>
<td>Environment Canada</td>
<td>Private health care: medicine, dentistry</td>
<td>Canadian Stem Cell Network</td>
</tr>
<tr>
<td>Postdoctoral Research</td>
<td>Agri-foods and Agriculture Canada</td>
<td>Veterinary medicine</td>
<td>Canadian Cancer Society</td>
</tr>
<tr>
<td>University Instructor</td>
<td>Canadian Food Inspection Agency</td>
<td>Consulting (toxicological, medical, genetic counselling, bioconsulting)</td>
<td>Canadian Blood Services</td>
</tr>
<tr>
<td>University Professor</td>
<td>National Research Council</td>
<td>Patent officer (biotechnology)</td>
<td></td>
</tr>
</tbody>
</table>
6. **Resources**

6 a) **Support and technical staff**

The only resource required by the Collaborative Specialization would be consistent Instructor(s), chosen from amongst the Faculty in the Institute of Biochemistry, to teach the Seminars in Biochemistry (BIOL 5002/CHEM 5800 and BIOL 6102/CHEM 6800, which be run as the same course, with different requirements for Masters-level version compared to PhD-level version) and Advances in Applied Biochemistry (BIOL 5004/CHEM 5806) courses. For the past five years, the Departments of Biology and Chemistry has offered Advances in Applied Biochemistry as BIOL 5004/CHEM 5900 Advances in Applied Biochemistry through the Departments of Biology and Chemistry. This course will be replaced with BIOL 5004/CHEM 5806 Advances in Applied Biochemistry upon approval of the Specialization (CHEM 5900 is a Directed Special Studies course).

Faculty associated with the Specialization who may be interested in teaching the two courses will be approached by the Executive Committee for the Specialization. An agreement between the Chair of Biology or the Chair of Chemistry and the Executive Committee for the Specialization would be required for the Faculty member to teach the courses required for the Collaborative Specialization in Biochemistry. If, in the event that no Faculty Instructor can be found for either Seminar in Biochemistry and Advances in Applied Biochemistry, the Executive Committee would have to hire a Contract Instructor to teach either or both the seminar and methodology course(s) in the Specialization, from the Biochemistry budget. The Departments of Biology and Chemistry are committed to ensuring that these compulsory courses are offered as part of their normal teaching assignments each year. Letters of support are attached from the Department of Biology, the Department of Chemistry, and the Dean of Science at Carleton.

New graduate students would be accommodated within the Departments of Biology or Chemistry and their respective graduate programs. The Methodology Course (BIOL 5004/CHEM 5806 Advances in Applied Biochemistry) is currently taught by four Faculty members between the Departments of Biology and Chemistry (the course is currently cross-listed as BIOL 5004/CHEM 5900 Advances in Applied Biochemistry). The new Seminar courses (BIOL 5002/CHEM 5800 and BIOL 6102/CHEM 6800), will be taught by current Faculty within the Institute of Biochemistry.

Many of the existing graduate courses in Biology and Chemistry can also be utilized by students in this Specialization. These include BIOL 5001 Topics in Biotechnology, BIOL 5003 Advanced Biochemistry, BIOL 5105 Methods in Molecular Genetics, BIOL 5106 Laboratory Techniques in Molecular Genetics, BIOL 5111 Biophysical Techniques, BIOL 5121 Advances in Protein Engineering, BIOL 6001 Advanced Molecular Biology, BIOL 6201 Advanced Cell Biology, BIOL 6202 Advanced Cell Biology II, CHEM 5109 Advanced Applications in Mass Spectrometry, CHEM 5208 Bio Macromolecular Nanotechnology, CHEM 5304 Free Radicals in Chemistry and Biology and CHEM 5904 Scientific Data Processing and Evaluation.

6 b) **Space**
No additional space is required. The new students would be accommodated within the Departments of Biology or Chemistry.

6 b) 1. Laboratory facilities (as applicable)

Laboratory facilities utilized by graduate students within the Specialization would include those of the student’s Supervisors in the Biology Department, the Chemistry Department, or off campus at Institutes like Health Canada, Environment Canada, Agri-foods and Agriculture Canada, Canadian Food Inspection Agency, the National Research Council of Canada, the Royal Canadian Mounted Police or in industry. The methodology course in the Biochemistry Specialization, BIOL 5004/CHEM 5806 Advances in Applied Biochemistry, would be run out of the undergraduate lab in Biochemistry (Tory Building, Room 132) during the Summer semester.

6 b) 2. Unit/program and affiliated research facilities (as applicable)

Graduate students within the Specialization in Biochemistry have a broad selection of researchers as supervisors within the Departments of Biology and Chemistry at Carleton University. Faculty within the Institute of Biochemistry research diverse subject areas such as nanotechnology, toxicology, health and disease, environmental issues, biotechnology, food and nutrition, genetics, bioinformatics and bioengineering. Faculty within the Institute of Biochemistry carry out multidisciplinary and interdisciplinary collaborations with groups within Carleton including Engineering (Biomedical and otherwise), Computer Science, Medical Physics, Neuroscience, and Health, amongst others. Outside of Carleton, Faculty within the Institute of Biochemistry collaborate with government labs within Ottawa, including Health Canada, Environment Canada, Agri-Foods and Agriculture Canada, the National Research Council of Canada, the Canadian Food Inspection Agency, and the Royal Canadian Mounted Police. Biochemistry Faculty also hold partnerships with companies in the Ottawa-Carleton region, as well as national and international industries. The graduate programs of both the Department of Biology (Ottawa-Carleton Institute of Biology) and the Department of Chemistry (Ottawa-Carleton Chemistry Institute) at Carleton are joint with the same Departments at the University of Ottawa; Institutes which benefit graduate students by: a) expanding the selection of graduate courses available to them, b) providing them with the use of shared resources and instrumentation, such as found in core facilities at both Universities, and c) enriching their graduate experience by having Graduate Committee Members from the same Department at both Universities. Graduate students within the Specialization in Biochemistry will not only have access to advanced instrumentation and laboratories within Ottawa, within Canada and abroad, but will also be provided the opportunity to network, collaborate and gain knowledge from scientists with diverse research interests in all regions. Note that Collaborative Specialization in Biochemistry will only be available to Carleton University students.

University and unit/program computer facilities and computing resources (as applicable)

Computer facilities and computer resources used by the graduate students in the Specialization will be provided by individual Supervisors of those students.

All Carleton graduate students are provided with email accounts and access to a variety of online services through the University’s main portal, “MyCarleton”, “cuLearn” and “Central”. Students also have access to a variety of computer facilities across campus, including the >150 computer terminals and workstations located in the common areas of the MacOdrum Library. The department of Computing and
Communications Services also maintains a Help Desk in the library to assist students and faculty with computing and networking issues.

6 c) Library Resources

An analysis of Carleton University Library’s information resources and services in support of the Specialization in Biochemistry demonstrates that the Library does not require any additional funds to support it.

The Library’s collection includes specific resources to support the Collaborative Specialization in Biochemistry. These include 18 of the top-ranked 20 journals in Journal Citation Reports, classified under the subject categories: Biochemistry Research Methods, and 20 of the top-ranked 20 journals, classified under the subject categories: Biochemistry and Molecular Biology. In addition, the Library’s collections of journals in related programs are also strong (BioLOGY and Chemistry).

During the 2014/2015 academic year, the Library’s spending for collections in all areas was almost $5.5 million. About $2 million was spent on general electronic resources which benefit all subject areas. In addition to that amount, the following table shows the amounts spent on electronic resources (databases, journals, ebooks, indexes), print journals, and monographs related to Chemistry and Biology:

<table>
<thead>
<tr>
<th>Library Collections Spending, 2014/2015:</th>
<th>Electronic Resources</th>
<th>Print Journals</th>
<th>Monographs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>$62,241.91</td>
<td>$4,125.60</td>
<td>$18,115.65</td>
</tr>
<tr>
<td>Chemistry</td>
<td>$152,991.72</td>
<td>$839.19</td>
<td>$8,195.66</td>
</tr>
<tr>
<td>General Science</td>
<td>$822,313.29</td>
<td>$58.74</td>
<td>$8,144.83</td>
</tr>
</tbody>
</table>

The Library’s spending on monographs in the subject areas in the past eight years has been as follows:

<table>
<thead>
<tr>
<th>Library Collections Spending, Monographs:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
</tr>
<tr>
<td>Chemistry</td>
</tr>
<tr>
<td>General Science</td>
</tr>
</tbody>
</table>

The policies for materials that the Library collects for Biology and Chemistry may be found at http://www.library.carleton.ca/about/policies/collection-development-subject-profiles.

Teaching, Learning, and Research

The information-literate student is one who is able to access information efficiently, critically assess it, assimilate and synthesize it effectively. The Library’s programs and services are grounded in Ontario’s Quality Assurance Framework, articulated in Ensuring the Value of University Degrees in Ontario, the Council of Ontario Universities’ guide to degree level expectations in the province.
The Librarians work collaboratively with faculty to address students’ information competencies through a number of methods, including the following.

**Learning Support – Provided Online**

The Library website (library.carleton.ca) is designed to support each step of the research process: identifying, accessing, borrowing, evaluating, and citing resources. Google Analytics recorded almost 1 million visits to the Library website during 2014/2015. Library users can now easily conduct a comprehensive search of the entire collection using the new Summon search interface.

Highlights of the Library website include:
- Biochemistry Subject Guide - [http://www.library.carleton.ca/research/subject-guides/biochemistry](http://www.library.carleton.ca/research/subject-guides/biochemistry)
- Biology Subject Guide - [http://www.library.carleton.ca/research/subject-guides/biology](http://www.library.carleton.ca/research/subject-guides/biology)
- Chemistry Subject Guide - [http://www.library.carleton.ca/research/subject-guides/chemistry](http://www.library.carleton.ca/research/subject-guides/chemistry)

**Services and Spaces**

**Individual Research Consultations**
Library staff provided 6721 individual research consultations in total in 2014/15 for all faculties. Consultations can be scheduled for quantitative and qualitative research, as well as for GIS support.

**Research Help Desks**
Onsite research help is also available at three service points: the main Research Help desk, the MADGIC (Maps, Data, and Government Information Centre), and the Archives help desks. The main and MADGIC desks are open seven days a week during the fall and winter terms, and are supplemented with phone, email, and chat reference services. These three service points had a total of 14,291 visits in 2014/15.

**General Information about the Library**

The Library underwent extensive renovations in 2012-13, including two additions (West and East), and extensive renovations to the interiors. The East addition consists of five stories of renovated space, totaling 28,500 square feet, punctuated by a large new reading room on the main floor, an Ottawa Community Resource Room, and an open-concept façade from top to bottom. The West addition consists of a two-story addition, Levels 4 and 5, totaling 45,700 square feet of new library space. The new design for the fourth and fifth floor addition located at the rear of the building includes expanded group study rooms, digital media study rooms, the Discovery Centre with three innovative learning labs, and a special collections study area. Throughout the existing portion of the library, approximately 34,700 square feet was renovated, creating many modernized departmental spaces, including Reference Services, MADGiC, ARC, Reserves, and Interlibrary Loans.

The Discovery Centre is a 9,500 square foot collaborative workspace for undergraduate research. This dynamic learning environment is outfitted with ergonomic, accessible and stylish furniture as well as state-of-the-art technology. Complete with three Library Laboratories (a gaming lab, a learning lab, and a multimedia lab), this multi-purpose space can be adapted to suit a wide range of needs.
The Library’s collection includes 1,084,374 printed monographs and 777,395 e-books, and licensed access to 68,033 electronic journals. In addition, the Library has substantial collections of government documents and other resources, maps, data, rare books and other special research collections, printed journals, archives, theses, multimedia resources (audio, DVD, streaming video), musical scores, computer games, as well as licensed access to a broad range of full text and indexing databases.

Subject specialists and liaison librarians, working with faculty members and coordinated by the Head of Collection Development and Acquisitions, build and maintain the Library’s collection by developing subject-specific collection policies which guide the systematic selection of materials. The Library also provides a request form on its website where a user may suggest a book or other item for purchase. Although the majority of monographs are collected in print format, the library is increasing its e-book collections. Students and faculty already have access to many e-books in a wide range of subjects and disciplines.

In order to enhance its purchasing power (particularly for electronic resources), the Library is an active member of two major cooperative partnerships: the Ontario Council of University Libraries (OCUL), a consortium of the 21 academic libraries in the province; and the Canadian Research Knowledge Network (CRKN), a consortium of 75 academic libraries across the country.

The Library’s annual acquisitions budget for the 2015/2016 fiscal year is $5.8 million, and its staffing and operating budget is $10.8 million.

The Library acquisitions budget is not protected from inflation, exchange rates, or cuts, which often challenges the Library’s ability to provide all the necessary resources in support of teaching, learning, and research at Carleton. Consideration of the funds necessary for the Library’s acquisitions budget is part of the academic planning and Quality Assurance processes for new programs. In relation to other Canadian academic libraries, Carleton’s acquisitions budget is small, and comparisons on specific metrics also generally place Carleton at the back. Carleton’s budget has increased by about 36% since 1999/2000 – slightly less than the increase in the national average of academic library budgets over the same period. But the main problem is that Carleton’s dollar amount is historically small in comparison to the national average, and since 1999/2000 it has not been catching up: it remains at about 56% (Carleton = about $5.5 million and the national average = about $9.9 million as of 2012/2013, the latest year for which comparative figures are available). The Library is dedicated to regular assessment of its resources and services. Staff use an assortment of qualitative and quantitative techniques to evaluate collections and services in order to make sound decisions within budget parameters.

The Library strongly supports the principles and practices of open access. The University’s institutional repository, CURVE, was established in 2011 and is maintained by the Library. It includes not only a growing archive of the broad intellectual output of the University, but also digitized versions of most of the theses accepted at Carleton since 1955 – and as of 2014 houses all new Carleton theses deposited electronically. The Library contributes to CURIE, the University’s program to provide funding for faculty and researchers who are publishing in open access journals, and also hosts 5 open access journals online.
STATEMENT OF SUPPORT FROM SISTER UNIT

RE: {Briefly describe proposal for which support is being sought}
Graduate Specialization in Biochemistry

[ ] I support this change unconditionally.

[ ] I do not support this change.

[X ] I support this change, with the following reservations:
The Director of Biochemistry will be responsible for ensuring that a faculty member will teach the required courses on an annual basis

Signature

Name: Iain Lambert

Title: Chair of the Department of Biology

Academic unit: Biology

Date: January 17, 2017

Notes:
STATEMENT OF SUPPORT FROM SISTER UNIT

RE: (Briefly describe proposal for which support is being sought)

M.S. AND PH.D IN CHEMISTRY WITH SPECIALIZATION IN BIOCHEMISTRY

[ ] I support this change unconditionally.

[ ] I do not support this change.

☑ I support this change, with the following reservations:

THE NEW BIOCHEMISTRY COURSES, CHEM 5800, 6800, AND 5806, WILL BE TAUGHT BY BIOCHEMISTRY FACULTY

Signature: Robert J. Cruickshank

Name: Robert J. Cruickshank

Title: Professor and Chair

Academic unit: Chemistry Department

Date: JAN 18, 2017

Notes:
New Program Proposal

Date Submitted: 10/20/16 8:52 am

Viewing: TBD-1306: M.Sc. Biology with Collaborative Specialization in Biochemistry

Last edit: 02/02/17 1:34 pm

Last modified by: lesliemacdonaldfhicks

Changes proposed by: laurathomas

In Workflow

1. BIOL ChairDir GR
2. SCI Dean
3. GRAD Dean
4. GRAD FCC
5. GRAD FBoard
6. CUCQA
7. PRE SCCASP
8. SCCASP
9. SAPC
10. Senate
11. CalEditor

Approval Path

1. 10/20/16 9:11 am
   Laura Thomas (laurathomas): Approved for BIOL ChairDir GR
2. 11/10/16 12:56 pm
   Malcolm Butler (malcolmbutler): Approved for SCI Dean
3. 11/10/16 1:10 pm
   Adrian Chan (adrianchan): Approved for GRAD Dean
4. 01/19/17 9:35 am
   Leslie Macdonald-Hicks (lesliemacdonaldhicks): Approved for GRAD FCC
5. 01/19/17 9:39 am
   Leslie Macdonald-Hicks (lesliemacdonaldhicks): Approved for GRAD FBoard
6. 02/02/17 10:17 am
   Christina Noja (christinanoja): Approved for CUCQA
7. 02/02/17 10:51 am
   Sandra Bauer (sandrabauer): Approved for PRE SCCASP

https://nextcalendar.carleton.ca/programadmin/
Program Requirements

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

Requirements:
1. 1.0 credits in:
   - BIOL 5002 [0.0] Seminar in Biochemistry I
   - BIOL 5004 [0.5] Advances in Applied Biochemistry
4. 4.0 credits in:

Total Credits 5.0

New Resources
No New Resources

Summary
Add new Collaborative Specialization in Biochemistry.

Rationale
The Institute of Biochemistry at Carleton University has maintained a strong undergraduate enrolment for the approximate 45 years that it has been in existence. Feedback from graduates of the undergraduate programs in Biochemistry have indicated that many students do their graduate work at universities other than Carleton University as the university does not have a graduate program in Biochemistry. A Collaborative Specialization in Biochemistry would initially increase enrolment in the graduate programs of the Department of Biology and the Department of Chemistry. Faculty within the Institute of Biochemistry are currently supervising graduate students in research focusing on Biochemistry and the addition of the Collaborative Specialization would require no new resources. A Collaborative Specialization in Biochemistry
communicates to prospective employers and potential graduate supervisors that a graduate student has chosen to focus their research in this particular field of their discipline, whether it be Biology or Chemistry.

<table>
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<tr>
<th>Transition/Implementation</th>
<th>none</th>
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| Program reviewer comments | sandrabauer (02/02/17 10:51 am): Added "in the specialization" following thesis requirement, per discussion at SAPC 2/2/2017  
sandrabauer (02/02/17 1:34 pm): added "in the specialization" to thesis. per SAPC 2/2/2017 |

Key: 1306
New Program Proposal

Date Submitted: 10/20/16 8:51 am

Viewing: TBD-1307 : P.h.D. Biology with Collaborative Specialization in Biochemistry

Last edit: 02/02/17 10:56 am

Last modified by: lesliemacdonaldhicks

Changes proposed by: laurathomas

In Workflow

1. BIOL ChairDir GR
2. SCI Dean
3. GRAD Dean
4. GRAD FCC
5. GRAD FBoard
6. CUCQA
7. PRE SCCASP
8. SCCASP
9. SAPC
10. Senate
11. CalEditor

Approval Path

1. 10/20/16 9:11 am
   Laura Thomas
   (laurathomas): Approved for BIOL ChairDir GR
2. 11/10/16 12:56 pm
   Malcolm Butler
   (malcolmbutler): Approved for SCI Dean
3. 11/10/16 1:09 pm
   Adrian Chan
   (adrianchan): Approved for GRAD Dean
4. 01/19/17 9:35 am
   Leslie Macdonald-Hicks
   (lesliemacdonaldhicks): Approved for GRAD FCC
5. 01/19/17 9:39 am
   Leslie Macdonald-Hicks
   (lesliemacdonaldhicks): Approved for GRAD FBoard
6. 02/02/17 10:17 am
   Christina Noja
   (christinanoja): Approved for CUCQA
7. 02/02/17 10:56 am
   Sandra Bauer
   (sandrabauer): Approved for PRE SCCASP
Program Requirements

Ph.D. Biology with Collaborative Specialization in Biochemistry (10.0 credits)

Requirements:

1. 1.0 credit in:
   - BIOL 6102 [0.0] Seminar in Biochemistry II
   - BIOL 5004 [0.5] Advances in Applied Biochemistry

3. 9.0 credits in:
   - BIOL 6909 [9.0] Ph.D. Thesis (in the specialization)

Total Credits 10.0

New Resources

No New Resources

Summary

Add new Collaborative Specialization in Biochemistry.

Rationale

The Institute of Biochemistry at Carleton University has maintained a strong undergraduate enrolment for the approximate 45 years that it has been in existence. Feedback from graduates of the undergraduate programs in Biochemistry have indicated that many students do their graduate work at universities other than Carleton University as the university does not have a graduate program in Biochemistry. A Collaborative Specialization in Biochemistry would initially increase enrolment in the graduate programs of the Department of Biology and the Department of Chemistry. Faculty within the Institute of Biochemistry are currently supervising graduate students in research focusing on Biochemistry and the addition of the Collaborative Specialization would require no new resources. A Collaborative Specialization in Biochemistry communicates to prospective employers and potential graduate supervisors that a graduate student has chosen to focus their research in this particular field of their discipline, whether it be Biology or Chemistry.
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<td><strong>sandrabauer (02/02/17 10:56 am)</strong>: Added &quot;in the specialization&quot; following thesis requirement, per discussion at SAPC 2/2/2017</td>
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Key: 1307
New Program Proposal

Date Submitted: 08/31/16 3:41 pm

Viewing: TBD-1313 : M.Sc. Chemistry with Collaborative Specialization in Biochemistry

Last edit: 02/02/17 10:53 am

Last modified by: lesliemacdonaldhicks

Changes proposed by: chantellegravelle

In Workflow

1. CHEM ChairDir GR
2. SCI Dean
3. GRAD Dean
4. GRAD FCC
5. GRAD FBoard
6. CUCQA
7. PRE SCCASP
8. SCCASP
9. SAPC
10. Senate
11. CalEditor

Approval Path

1. 08/31/16 3:55 pm
   Robert Crutchley (robertcrutchley): Approved for CHEM ChairDir GR
2. 09/20/16 12:56 pm
   Malcolm Butler (malcolmbutler): Approved for SCI Dean
3. 09/20/16 1:04 pm
   Adrian Chan (adrianchan): Approved for GRAD Dean
4. 01/16/17 3:40 pm
   Leslie Macdonald-Hicks (lesliemacdonaldhicks): Approved for GRAD FCC
5. 01/16/17 3:44 pm
   Leslie Macdonald-Hicks (lesliemacdonaldhicks): Approved for GRAD FBoard
6. 02/02/17 10:17 am
   Christina Noja (christinanoja): Approved for CUCQA
7. 02/02/17 10:53 am
   Sandra Bauer (sandrabauer): Approved for PRE SCCASP

https://nextcalendar.carleton.ca/programadmin/
Program Requirements

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

Requirements:
1. 1.0 credit in:
   - CHEM 5800 [0.0] Seminar in Biochemistry I
   - CHEM 5806 [0.0] Advances in Applied Biochemistry
2. 1.0 credit in:
   - CHEM 5801 [1.0] Seminar I
3. 3.0 credits in:

Total Credits 5.0

New Resources
No New Resources

Summary
Add new Collaborative Specialization in Biochemistry.

Rationale
The Institute of Biochemistry at Carleton University has maintained a strong undergraduate enrolment for the approximate 45 years that it has been in existence. Feedback from graduates of the undergraduate programs in Biochemistry have indicated that many students do their graduate work at universities other than Carleton University as the university does not have a graduate program in Biochemistry. A Collaborative Specialization in Biochemistry would initially increase enrolment in the graduate programs of the Department of Biology and the Department of Chemistry. Faculty within the Institute of Biochemistry are currently supervising graduate students in research focusing on Biochemistry and the addition of the Collaborative Specialization would require no new resources. A Collaborative Specialization in Biochemistry communicates to prospective employers and potential graduate supervisors that...
a graduate student has chosen to focus their research in this particular field of their discipline, whether it be Biology or Chemistry.

Transition/Implementation  None

Program reviewer comments
lesliemacdonaldhicks (07/25/16 2:28 pm): Rollback: To be reviewed by Director.
robertcrutchley (07/25/16 3:13 pm): Rollback: It's the old submission. I don't see the two new courses BIOL 5XXX/CHEM 5XXX [0.5] Seminar in Biochemistry BIOL 5XXX/CHEM 5XXX [0.5] I'll send you the voted-on document
sandrabor (02/02/17 10:53 am): Added "in the specialization" following thesis requirement, per discussion at SAPC 2/2/2017

Key: 1313
New Program Proposal

Date Submitted: 10/22/15 9:47 am

Viewing: TBD-1318 : Ph.D Chemistry with Collaborative Specialization in Biochemistry

Last edit: 02/02/17 10:58 am

Last modified by: lesliemacdonaldhicks

Changes proposed by: chantellegravele

Effective Date 2017-18
Program Requirements

Ph.D. Chemistry with Collaborative Specialization in Biochemistry (10.0 credits)

Requirements:

1. 1.0 credit in:
   - CHEM 5806 [0.0] Advances in Applied Biochemistry
   - CHEM 6800 [0.0] Seminar in Biochemistry II

2. 1.0 credit in graduate courses

3. 2.0 credits in:
   - CHEM 5801 [1.0] Seminar I
   - CHEM 5802 [1.0] Seminar II

4. A two-part comprehensive in Chemistry (see Note below).

5. At least three years of full-time study

6. 6.0 credits in:
   - CHEM 6909 [6.0] Ph.D. Thesis (in the specialization)

Total Credits 10.0

New Resources

No New Resources

Summary

Add new Collaborative Specialization in Biochemistry.

Rationale

The Institute of Biochemistry at Carleton University has maintained a strong undergraduate enrolment for the approximate 45 years that it has been in existence. Feedback from graduates of the undergraduate programs in Biochemistry have indicated that many students do their graduate work at universities other than Carleton University as the university does not have a graduate program in Biochemistry. A Collaborative Specialization in Biochemistry would initially increase enrolment in the graduate programs of the Department of Biology and the Department of Chemistry. Faculty within the Institute of Biochemistry are currently supervising graduate students in research...
focusing on Biochemistry and the addition of the Collaborative Specialization would require no new resources. A Collaborative Specialization in Biochemistry communicates to prospective employers and potential graduate supervisors that a graduate student has chosen to focus their research in this particular field of their discipline, whether it be Biology or Chemistry.

Transition/Implementation

None

Program reviewer comments

sandrabauer (11/09/15 5:51 pm): I have revised the entry so that it is in standard CourseLeaf table format. The paragraphs about Comprehensive Examinations, entry from MSc, Orientation Examinations, Thesis Advisory Committee, Admission Requirements and Academic Regulations already appear on the existing Calendar page and thus were removed. The "About the Program" has been discontinued per FGPA policy and so this text was also removed.

sandrabauer (02/02/17 10:58 am): added "in the specialization" to thesis per discussion at SAPC 2/2/2017
New Course Proposal

Date Submitted: 01/04/17 4:03 pm

Viewing: **BIOL 5002 : Seminar in Biochemistry I**

Last edit: 01/09/17 11:39 am

Changes proposed by: sandrabauer

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In Workflow

1. BIOL ChairDir GR
2. SCI Dean
3. GRAD Dean
4. GRAD FCC
5. GRAD FBoard
6. CUCQA
7. PRE SCCASP
8. SCCASP
9. SAPC
10. Senate
11. Banner

---

Approval Path

1. 01/04/17 4:07 pm
   Sandra Bauer
   (sandrabauer): Approved for BIOL ChairDir GR
2. 01/04/17 4:08 pm
   Sandra Bauer
   (sandrabauer): Approved for SCI Dean
3. 01/04/17 4:09 pm
   Sandra Bauer
   (sandrabauer): Approved for GRAD Dean
4. 01/04/17 4:11 pm
   Sandra Bauer
   (sandrabauer): Approved for GRAD FCC
5. 01/04/17 4:13 pm
   Sandra Bauer
   (sandrabauer): Rollback to GRAD FCC for GRAD FBoard
6. 01/04/17 5:43 pm
   Sandra Bauer
   (sandrabauer): Approved for GRAD FCC
7. 01/04/17 5:44 pm
   Sandra Bauer
   (sandrabauer): Approved for GRAD FBoard

---

https://nextcalendar.carleton.ca/courseadmin/
**Calendar Pages referencing this course**

- Biology
- Biology (BIOL)
- Chemistry
- Chemistry (CHEM)

**Programs referencing this course**

- M.Sc. Biology with Collaborative Specialization in Biochemistry

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<td>Sandra Bauer (sandrabauer): Rollback to GRAD FBoard for CUCQA</td>
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<tr>
<td>9. 01/16/17</td>
<td>3:44 pm</td>
<td>Leslie Macdonald-Hicks (lesliemacdonaldhicks): Approved for GRAD FBoard</td>
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<tr>
<td>10. 02/02/17</td>
<td>10:17 am</td>
<td>Christina Noja (christinanoja): Approved for CUCQA</td>
</tr>
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<td>11. 02/02/17</td>
<td>10:49 am</td>
<td>Sandra Bauer (sandrabauer): Approved for PRE SCCASP</td>
</tr>
<tr>
<td>12. 02/07/17</td>
<td>10:12 am</td>
<td>Dan Begin (danbegin): Approved for SCCASP</td>
</tr>
<tr>
<td>13. 02/07/17</td>
<td>11:44 am</td>
<td>Christina Noja (christinanoja): Approved for SAPC</td>
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**Effective Date**

2017-18

**Workflow**

majormod

**New Resources**

No New Resources

**Level**

Graduate

**Course Code**

BIOL

**Course Number**

5002

**Title**

Seminar in Biochemistry I

**Title (short)**

Seminar in Biochemistry I

**Faculty**

Faculty of Science

**Academic Unit**

Department of Biology

**Credit Value**

0.50

**Course Description**

A graduate seminar on current topics in the field of Biochemistry. This course introduces the seminar format and involves student, faculty and invited seminar speakers. The student will present a seminar and submit a report on a current topic in Biochemistry.
<table>
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<tr>
<th><strong>Prerequisite(s)</strong></th>
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<table>
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<th><strong>Summary</strong></th>
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<tbody>
<tr>
<td>Add a new course BIOL 5002 and CHEM 5800 to the graduate degrees of Biology and Chemistry respectively.</td>
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<table>
<thead>
<tr>
<th><strong>Rationale for new course</strong></th>
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<tbody>
<tr>
<td>Required for the new Specialization in Biochemistry to be offered in the Graduate Programs (M.Sc.) of the Departments of Biology and Chemistry.</td>
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<table>
<thead>
<tr>
<th><strong>Course reviewer comments</strong></th>
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<tr>
<td>sandrabauer (12/13/16 2:14 pm): Corrected year to 17-18</td>
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<tr>
<td>sandrabauer (01/04/17 4:02 pm): Rollback: to change workflow to major.</td>
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<tr>
<td>sandrabauer (01/04/17 4:13 pm): Rollback: Back to FCC step where it was before change to major</td>
</tr>
<tr>
<td>sandrabauer (01/09/17 10:54 am): Rollback: As requested</td>
</tr>
</tbody>
</table>
In Workflow

1. BIOL ChairDir GR
2. SCI Dean
3. GRAD Dean
4. GRAD FCC
5. GRAD FBoard
6. CUCQA
7. PRE SCCASP
8. SCCASP
9. SAPC
10. Senate
11. Banner

Approval Path

1. 01/04/17 4:07 pm
   Sandra Bauer
   (sandrabauer): Approved for BIOL ChairDir GR
2. 01/04/17 4:08 pm
   Sandra Bauer
   (sandrabauer): Approved for SCI Dean
3. 01/04/17 4:09 pm
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   (sandrabauer): Approved for GRAD Dean
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   Sandra Bauer
   (sandrabauer): Approved for GRAD FCC
5. 01/04/17 4:13 pm
   Sandra Bauer
   (sandrabauer): Rollback to GRAD FCC for GRAD FBoard
6. 01/04/17 5:43 pm
   Sandra Bauer
   (sandrabauer): Approved for GRAD FCC
7. 01/04/17 5:44 pm
   Sandra Bauer
   (sandrabauer): Approved for GRAD FBoard

Date Submitted: 01/04/17 4:05 pm

Viewing: **BIOL 5004 : Advances in Applied Biochemistry**

Last edit: 01/09/17 11:39 am

Changes proposed by: sandrabauer

https://nextcalendar.carleton.ca/courseadmin/
### Calendar Pages referencing this course

- Biology
- Biology (BIOL)
- Chemistry
- Chemistry (CHEM)

### Programs referencing this course

- M.Sc. Biology with Collaborative Specialization in Biochemistry
- P.h.D. Biology with Collaborative Specialization in Biochemistry

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<th>Time</th>
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<th>Message</th>
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<td>Rollback to GRAD FBoard for CUCQA</td>
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<td>01/16/17</td>
<td>3:44 pm</td>
<td>Leslie Macdonald-Hicks (lesliemacdonaldhicks)</td>
<td>Approved for GRAD FBoard</td>
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<td>Approved for PRE SCCASP</td>
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<td>10:12 am</td>
<td>Dan Begin (danbegin)</td>
<td>Approved for SCCASP</td>
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<tr>
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<td>11:44 am</td>
<td>Christina Noja (christinanoja)</td>
<td>Approved for SAPC</td>
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</tbody>
</table>

### Course Details

- **Effective Date**: 2017-18
- **Workflow**: majormod
- **Level**: Graduate
- **Course Code**: BIOL
- **Course Number**: 5004
- **Title**: Advances in Applied Biochemistry
- **Title (short)**: Advances Applied Biochemistry
- **Faculty**: Faculty of Science
- **Academic Unit**: Department of Biology
- **Credit Value**: 0.50

**Course Description**: A practical hands-on course in the field of Biochemistry. This course is run in a laboratory and will train students in highly specialized technique(s) in Biochemistry. The students will run experiments, gather data, assess and analyze the results and present the findings as a seminar. Contemporary methods in recombinant DNA technology and protein characterization, including advanced techniques in proteomics.
<table>
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<tr>
<td>Schedule Type</td>
<td>Seminar</td>
</tr>
<tr>
<td>Summary</td>
<td>Add a new course BIOL 5004 and CHEM 5806 to the graduate degrees of Biology and Chemistry respectively.</td>
</tr>
<tr>
<td>Rationale for change</td>
<td>Required for the new Specialization in Biochemistry to be offered in the Graduate Programs (M.Sc. and Ph.D.) of the Departments of Biology and Chemistry.</td>
</tr>
<tr>
<td>Course reviewer comments</td>
<td>sandrabauer (01/09/17 10:55 am): Rollback: As requested</td>
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</table>

https://nextcalendar.carleton.ca/courseadmin/
New Course Proposal

Date Submitted: 01/19/17 4:23 pm

Viewing: **BIOL 6102 : Seminar in Biochemistry II**

Last edit: 01/19/17 4:23 pm

Changes proposed by: laurathomas

In Workflow

1. BIOL ChairDir GR
2. SCI Dean
3. GRAD Dean
4. GRAD FCC
5. GRAD FBoard
6. CUCQA
7. PRE SCCASP
8. SCCASP
9. SAPC
10. Senate
11. Banner

Approval Path

1. 01/19/17 4:26 pm
   Laura Thomas (laurathomas): Approved for BIOL ChairDir GR
2. 01/20/17 8:54 am
   Malcolm Butler (malcolmbutler): Approved for SCI Dean
3. 01/20/17 8:57 am
   Adrian Chan (adrianchan): Approved for GRAD Dean
4. 01/20/17 9:20 am
   Leslie Macdonald-Hicks (lesliemacdonaldhicks): Approved for GRAD FCC
5. 01/20/17 9:22 am
   Leslie Macdonald-Hicks (lesliemacdonaldhicks): Approved for GRAD FBoard
6. 02/02/17 10:17 am
   Christina Noja (christinanoja): Approved for CUCQA
7. 02/02/17 10:50 am
   Sandra Bauer (sandrabauer): Approved for PRE SCCASP

https://nextcalendar.carleton.ca/courseadmin/
Programs referencing this course: **P.h.D. Biology with Collaborative Specialization in Biochemistry**

<table>
<thead>
<tr>
<th>Programs referencing this course</th>
<th>8. 02/07/17 10:12 am Dan Begin (danbegin): Approved for SCCASP</th>
</tr>
</thead>
<tbody>
<tr>
<td>9. 02/07/17 11:44 am Christina Noja (christinanoja): Approved for SAPC</td>
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<table>
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<th>Effective Date</th>
<th>2017-18</th>
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<tbody>
<tr>
<td>Workflow</td>
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</tr>
<tr>
<td>New Resources</td>
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<tr>
<td>Level</td>
<td>Graduate</td>
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<td>Course Code</td>
<td>BIOL</td>
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<tr>
<td>Course Number</td>
<td>6102</td>
</tr>
<tr>
<td>Title</td>
<td>Seminar in Biochemistry II</td>
</tr>
<tr>
<td>Title (short)</td>
<td>Seminar in Biochemistry II</td>
</tr>
<tr>
<td>Faculty</td>
<td>Faculty of Science</td>
</tr>
<tr>
<td>Academic Unit</td>
<td>Department of Biology</td>
</tr>
<tr>
<td>Credit Value</td>
<td>0.50</td>
</tr>
<tr>
<td>Course Description</td>
<td>A graduate seminar on current topics in the field of Biochemistry. This course introduces the seminar format and involves student, faculty and invited seminar speakers. The student will present a seminar and submit a report on a current topic in Biochemistry.</td>
</tr>
<tr>
<td>Prerequisite(s)</td>
<td></td>
</tr>
<tr>
<td>Class Format</td>
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</tr>
<tr>
<td>Precluded Courses</td>
<td></td>
</tr>
<tr>
<td>Also listed as</td>
<td>CHEM 6800</td>
</tr>
<tr>
<td>Piggybacked Courses</td>
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<td>U Ottawa Code</td>
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<tr>
<td><strong>Summary</strong></td>
<td>Add a new course, BIOL 6102 and CHEM 6800 to the graduate degrees of Biology and Chemistry respectively. This course can be delivered simultaneously with BIOL 5002/CHEM 5800 Seminar in Biochemistry I with additional requirements for Doctoral students.</td>
</tr>
<tr>
<td>-------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
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<tr>
<td><strong>Rationale for new course</strong></td>
<td>Required for the new PhD Specialization in Biochemistry to be offered in the Graduate Programs (Ph.D.) of the Departments of Biology and Chemistry.</td>
</tr>
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<td><strong>Course reviewer comments</strong></td>
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Key: 9170
New Course Proposal

Date Submitted: 01/04/17 4:06 pm

Viewing: CHEM 5800 : Seminar in Biochemistry I

Last edit: 01/09/17 11:39 am

Changes proposed by: sandrabauer

In Workflow

1. CHEM ChairDir GR
2. SCI Dean
3. GRAD Dean
4. GRAD FCC
5. GRAD FBoard
6. CUCQA
7. PRE SCCASP
8. SCCASP
9. SAPC
10. Senate
11. Banner

Approval Path

1. 01/04/17 4:07 pm
   Sandra Bauer (sandrabauer): Approved for CHEM ChairDir GR
2. 01/04/17 4:08 pm
   Sandra Bauer (sandrabauer): Approved for SCI Dean
3. 01/04/17 4:09 pm
   Sandra Bauer (sandrabauer): Approved for GRAD Dean
4. 01/04/17 4:11 pm
   Sandra Bauer (sandrabauer): Approved for GRAD FCC
5. 01/04/17 4:13 pm
   Sandra Bauer (sandrabauer): Rollback to GRAD FCC for GRAD FBoard
6. 01/04/17 5:43 pm
   Sandra Bauer (sandrabauer): Approved for GRAD FCC
7. 01/04/17 5:45 pm
   Sandra Bauer (sandrabauer): Approved for GRAD FBoard

https://nextcalendar.carleton.ca/courseadmin/
### Calendar Pages referencing this course

- Biology
- Biology (BIOL)
- Chemistry
- Chemistry (CHEM)

### Programs referencing this course

- M.Sc. Chemistry with Collaborative Specialization in Biochemistry

### Course Details

<table>
<thead>
<tr>
<th>Effective Date</th>
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<tbody>
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<td>Workflow</td>
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<tr>
<td>New Resources</td>
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<td>Level</td>
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<td>Course Code</td>
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<td>Course Number</td>
<td>5800</td>
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<tr>
<td>Title</td>
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<td>Title (short)</td>
<td>Seminar in Biochemistry I</td>
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<tr>
<td>Faculty</td>
<td>Faculty of Science</td>
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<tr>
<td>Academic Unit</td>
<td>Department of Chemistry</td>
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<td>Credit Value</td>
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<td>Course Description</td>
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</table>

A graduate seminar on current topics in the field of Biochemistry. This course introduces the seminar format and involves student, faculty and invited seminar speakers. The student will present a seminar and submit a report on a current topic in Biochemistry.

---

8. 01/09/17 10:55 am
   Sandra Bauer (sandrabauer): Rollback to GRAD FBoard for CUCQA

9. 01/16/17 3:44 pm
   Leslie Macdonald-Hicks (lesliemacdonaldhicks):
   Approved for GRAD FBoard

10. 02/02/17 10:17 am
    Christina Noja (christinanoja): Approved for CUCQA

11. 02/02/17 10:50 am
    Sandra Bauer (sandrabauer): Approved for PRE SCCASP

12. 02/07/17 10:13 am
    Dan Begin (danbegin):
    Approved for SCCASP

13. 02/07/17 11:44 am
    Christina Noja (christinanoja): Approved for SAPC
<table>
<thead>
<tr>
<th>Prerequisite(s)</th>
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<td>Also listed as</td>
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<tr>
<td>Piggybacked Courses</td>
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<tr>
<td>Grade Mode</td>
<td>Standard Letter Grade</td>
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<tr>
<td>Schedule Type</td>
<td>Seminar</td>
</tr>
<tr>
<td>Summary</td>
<td>Add a new course BIOL 5002 and CHEM 5800 to the graduate degrees of Biology and Chemistry respectively.</td>
</tr>
<tr>
<td>Rationale for new course</td>
<td>Required for the new Specialization in Biochemistry to be offered in the Graduate Programs (M.Sc.) of the Departments of Biology and Chemistry.</td>
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</table>
| Course reviewer comments | sandrabauer (01/04/17 4:04 pm): Rollback: to change workflow to major.  
sandrabauer (01/04/17 4:13 pm): Rollback: Back to FCC step where it was before change to major  
sandrabauer (01/09/17 10:55 am): Rollback: As requested |
New Course Proposal

Date Submitted: 01/04/17 4:29 pm

Viewing: CHEM 5806 : Advances in Applied Biochemistry

Last edit: 01/09/17 11:40 am

Changes proposed by: sandrabauer

In Workflow

1. CHEM ChairDir GR
2. SCI Dean
3. GRAD Dean
4. GRAD FCC
5. GRAD FBoard
6. CUCQA
7. PRE SCCASP
8. SCCASP
9. SAPC
10. Senate
11. Banner

Approval Path

1. 01/04/17 4:30 pm
   Sandra Bauer
   (sandrabauer): Approved for CHEM ChairDir GR
2. 01/04/17 4:30 pm
   Sandra Bauer
   (sandrabauer): Approved for SCI Dean
3. 01/04/17 4:31 pm
   Sandra Bauer
   (sandrabauer): Approved for GRAD Dean
4. 01/04/17 5:43 pm
   Sandra Bauer
   (sandrabauer): Approved for GRAD FCC
5. 01/04/17 5:45 pm
   Sandra Bauer
   (sandrabauer): Approved for GRAD FBoard
6. 01/09/17 10:55 am
   Sandra Bauer
   (sandrabauer): Rollback to GRAD FBoard for CUCQA
7. 01/16/17 3:44 pm
   Leslie Macdonald-Hicks
   (lesliemacdonaldhicks): Approved for GRAD FBoard
| Calendar Pages referencing this course | Chemistry  
Chemistry (CHEM) |
|---------------------------------------|-------------------|
| Programs referencing this course      | M.Sc. Chemistry with Collaborative Specialization in Biochemistry  
Ph.D Chemistry with Collaborative Specialization in Biochemistry |
| Effective Date                        | 2017-18 |
| Workflow                              | majormod  
No New Resources |
| Level                                 | Graduate  
Graduate |
| Course Code                           | CHEM  
CHEM |
| Course Number                         | 5806  
5806 |
| Title                                 | Advances in Applied Biochemistry  
Advances Applied Biochemistry |
| Faculty                               | Faculty of Science  
Faculty of Science |
| Academic Unit                         | Department of Chemistry  
Department of Chemistry |
| Credit Value                          | 0.50  
0.50 |
| Course Description                    | A practical hands-on course in the field of Biochemistry. This course is run in a laboratory and will train students in highly specialized technique(s) in Biochemistry. The students will run experiments, gather data, assess and analyze the results and present the findings as a seminar.  
A practical hands-on course in the field of Biochemistry. This course is run in a laboratory and will train students in highly specialized technique(s) in Biochemistry. The students will run experiments, gather data, assess and analyze the results and present the findings as a seminar. |
| Prerequisite(s)                       |  
Also listed as  
Piggybacked Courses |
| Class Format                          | BIOL 5004  
BIOL 5004 |
| Precluded Courses                     |  
Electric Vehicle Technologies  
Elec. Vehicle Tech.  
Biochemistry  
Biochemistry  
Biomedical Basis of Biochemistry  
Biochemistry |
| Also listed as                         |  
Also listed as  
Piggybacked Courses |
| Piggybacked Courses                   |  
Also listed as  
Piggybacked Courses |

https://nextcalendar.carleton.ca/courseadmin/
## U Ottawa Code

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<tr>
<td>Summary</td>
<td>Add a new course BIOL 5004 and CHEM 5806 to the graduate degrees of Biology and Chemistry respectively.</td>
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<tr>
<td>Rationale for new course</td>
<td>Required for the new Specialization in Biochemistry to be offered in the Graduate Programs (M.Sc. and Ph.D.) of the Departments of Biology and Chemistry.</td>
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### Course reviewer comments

- **sandrabauer (01/04/17 4:05 pm):** Rollback: to change workflow to major.
- **sandrabauer (01/04/17 4:07 pm):** Rollback: change workflow to major
- **sandrabauer (01/09/17 10:55 am):** Rollback: As requested
New Course Proposal

Date Submitted: 01/16/17 9:11 am

Viewing: CHEM 6800 : Seminar in Biochemistry II

Last edit: 01/16/17 9:11 am

Changes proposed by: chantellegravelle

Approval Path

1. 01/16/17 12:24 pm
   Robert Crutchley (robercrutchley):
   Approved for CHEM ChairDir GR
2. 01/16/17 1:10 pm
   Malcolm Butler (malcolmbutler):
   Approved for SCI Dean
3. 01/16/17 2:40 pm
   Adrian Chan (adrianchan): Approved for GRAD Dean
4. 01/16/17 3:39 pm
   Leslie Macdonald-Hicks (lesiemacdonaldhicks):
   Approved for GRAD FCC
5. 01/16/17 3:44 pm
   Leslie Macdonald-Hicks (lesiemacdonaldhicks):
   Approved for GRAD FBoard
6. 02/02/17 10:17 am
   Christina Noja (christinanoja): Approved for CUCQA
7. 02/02/17 10:50 am
   Sandra Bauer (sandrabauer): Approved for PRE SCCASP
Programs referencing this course:

Ph.D Chemistry with Collaborative Specialization in Biochemistry

Effective Date: 2017-18

Workflow: majormod

New Resources: No New Resources

Level: Graduate

Course Code: CHEM

Course Number: 6800

Title: Seminar in Biochemistry II

Title (short): Seminar in Biochemistry II

Faculty: Faculty of Science

Academic Unit: Department of Chemistry

Credit Value: 0.50

Course Description:
A graduate seminar on current topics in the field of Biochemistry. This course introduces the seminar format and involves student, faculty and invited seminar speakers. The student will present a seminar and submit a report on a current topic in Biochemistry.

Prerequisite(s):

Class Format: Lecture three hours a week.

Precluded Courses:

Also listed as:

BIOL 6102

Piggybacked Courses:

U Ottawa Code:

Grade Mode: Standard Letter Grade

Schedule Type: Seminar

https://nextcalendar.carleton.ca/courseadmin/
| Summary | Add a new course BIOL 6102 and CHEM 6800 to the graduate degrees of Biology and Chemistry respectively. This course can be delivered simultaneously with BIOL 5002/CHEM 5800 Seminar in Biochemistry I with additional requirements for Doctoral students. |
| Rationale for new course | Required for the new Specialization in Biochemistry to be offered in the Graduate Programs (Ph.D.) of the Departments of Biology and Chemistry. |
| Course reviewer comments | |
Date Submitted: 01/16/17 1:06 pm

Viewing: **TBD-1522 : R-General General**
Prerequisite for Journalism (BJ, BJHum)

Last approved: 11/10/16 10:18 am

Last edit: 02/07/17 10:35 am

Last modified by: carolecraswell

Changes proposed by: sandrabauer

In Workflow

1. HUMM ChairDir UG
2. JOUR ChairDir UG
3. PA FCC
4. AS FCC
5. AS FBoard
6. PA FBoard
7. PRE SCCASP
8. SCCASP
9. Senate
10. CalEditor

Approval Path

1. 01/16/17 4:00 pm Shane Hawkins (shanehawkins):
   Approved for HUMM ChairDir UG
2. 01/16/17 4:03 pm Carole Craswell (carolecraswell):
   Approved for JOUR ChairDir UG
3. 01/24/17 10:36 am Hugh Shewell (hughshewell):
   Approved for PA FCC
4. 01/31/17 1:46 pm Richard Mann (richardmann):
   Approved for AS FCC
5. 01/31/17 2:13 pm Richard Mann (richardmann):
   Approved for AS FBoard
6. 02/02/17 10:31 am Hugh Shewell (hughshewell):
   Approved for PA FBoard
7. 02/02/17 10:59 am Sandra Bauer (sandrabauer):
   Approved for PRE SCCASP
8. 02/07/17 11:08 am Dan Begin (danbegin):
   Approved for SCCASP
Calendar Pages Using this Program

Journalism
Bachelor of Journalism and Humanities

Effective Date
2017-18

Workflow
majormod

Program Code
TBD-1522

Level
Undergraduate

Faculty
Faculty of Public Affairs
Faculty of Arts and Social Sciences

Academic Unit
School of Journalism and Communication (JOUR)
College of the Humanities

Degree
Title
R-General General Prerequisite for Journalism (BJ, BJHum)

Program Requirements

General Prerequisite

1. General Prerequisite: Students may not continue into 3000-level Journalism production or higher level JOUR courses JOUR 3207, JOUR 3208, JOUR 3225, JOUR 3235 if they attain a unless the following two minimum grade of C in each of the following: JOUR 2201, JOUR 2202 and JOUR 2501. requirements are met:

2. Students may continue into the 4000-level Journalism production courses JOUR 4204, JOUR 4205, JOUR 4206, JOUR 4207 and JOUR 4208 if they attain a minimum grade of C in each of the following: JOUR 3207, JOUR 3208, JOUR 3225, JOUR 3235.

at least C standing in JOUR 2201 A GPA of at least 6.50 over the courses JOUR 1001, JOUR 1002, JOUR 2201 [1.0], JOUR 2205 and JOUR 2501.

New Resources

No New Resources

Summary
Clarifying the general prerequisites for the JOUR part of the degree.

Rationale for change
In keeping with changes made to the BJ degree general prerequisites. The updates are made to keep all changes consistent within the affected programs.

Transition/Implementation
This will be effective for students admitted for Fall 2017 and will roll out beginning that term.
sandrabauer (01/16/17 1:05 pm): Rollback: to add faculties to workflow
Viewing: **TBD-1518 : R-UG BJHum Graduation Requirements**

Last approved: 10/24/16 4:02 pm

Last edit: 01/16/17 12:45 pm

Last modified by: carolecraswell

Changes proposed by: sandrabauer

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**In Workflow**

1. HUMM ChairDir UG
2. JOUR ChairDir UG
3. PA FCC
4. AS FCC
5. PA FBoard
6. AS FBoard
7. PRE SCCASP
8. SCCASP
9. Senate
10. CalEditor

---

**Approval Path**

1. 01/16/17 4:00 pm
   Shane Hawkins
   (shanehawkins): Approved for HUMM ChairDir UG
2. 01/16/17 4:03 pm
   Carole Craswell
   (carolecraswell): Approved for JOUR ChairDir UG
3. 01/19/17 11:44 am
   Hugh Shewell
   (hughshewell): Approved for PA FCC
4. 01/31/17 1:47 pm
   Richard Mann
   (richardmann): Approved for AS FCC
5. 02/02/17 10:31 am
   Hugh Shewell
   (hughshewell): Approved for PA FBoard
6. 02/02/17 11:07 am
   Richard Mann
   (richardmann): Approved for AS FBoard
7. 02/02/17 11:14 am
   Sandra Bauer
   (sandrabauer): Approved for PRE SCCASP
8. 02/07/17 11:08 am
   Dan Begin (danbegin): Approved for SCCASP
Effective Date 2017-18
Workflow majormod
Program Code TBD-1518
Level Undergraduate
Faculty Faculty of Arts and Social Sciences
Faculty of Public Affairs
Academic Unit School of Journalism and Communication (JOUR)
College of the Humanities
Degree
Title R-UG BJHum Graduation Requirements

Program Requirements

Graduation Requirements

In addition to the requirements listed below, students must satisfy:

1. The University regulations, including the process of Academic Performance Evaluation (see the Academic Regulations of the University section of this Calendar).
2. For B.J. Hum. students, the common regulations applying to all B.J. Hum. including those relating to Academic Performance Evaluation for the B.J.Hum as described in Section 7.5 of the Academic Regulations of the University section of this Calendar.
3. In addition to the graduation requirements of the University, a candidate for the degree of Bachelor of Journalism and Humanities with Honours must present:
   1. a Core Humanities Major CGPA of at least 7.00,
   2. a minimum grade of C or higher in each of the 2000-level and above JOUR courses presented for the degree; Reporting course,
   3. a grade of C- or higher in each other Journalism course, an overall CGPA of 7.00 or higher.

New Resources

No New Resources

Summary

Updating the graduation requirements to correspond to those in the BJ degree and BHUM degree.

Rationale for change

With the modification of the graduation requirements in the BJ it was necessary to make these consistent in the BIHUM. These updates were made in consultation with representatives from the Registrar’s Office and the College of Humanities.
<table>
<thead>
<tr>
<th>Transition/Implementation</th>
<th>This will be effective for students admitted for Fall 2017 and will roll out beginning that term.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program reviewer comments</td>
<td><strong>sandrabauer (01/16/17 12:44 pm)</strong>: Rollback: to add faculties to workflow.</td>
</tr>
</tbody>
</table>
Viewing: R-UG-7.5 : R-UG-7.5 Academic Regulations for Bachelor of Journalism

Last approved: 05/26/16 12:46 pm

Last edit: 02/07/17 10:58 am

Last modified by: carolecraswell

Changes proposed by: sandrabauer

In Workflow
1. JOUR ChairDir UG
2. PA FCC
3. PA FBoard
4. PRE SCCASP
5. SCCASP
6. Senate
7. CalEditor

Approval Path
1. 01/16/17 1:29 pm
   Carole Craswell (carolecraswell): Approved for JOUR ChairDir UG
2. 01/19/17 11:44 am
   Hugh Shewell (hughshewell): Approved for PA FCC
3. 02/02/17 10:31 am
   Hugh Shewell (hughshewell): Approved for PA FBoard
4. 02/02/17 10:59 am
   Sandra Bauer (sandrabauer): Approved for PRE SCCASP
5. 02/07/17 11:09 am
   Dan Begin (danbegin): Approved for SCCASP

History
1. Aug 27, 2015 by Sandra Bauer (sandrabauer)
2. Apr 4, 2016 by Sandra Bauer (sandrabauer)
3. May 26, 2016 by Sandra Bauer (sandrabauer)
Effective Date | 2017-18
---|---
Workflow | majormod-minormod
Program Code | R-UG-7.5
Level | Undergraduate
Faculty | Faculty of Public Affairs Not Applicable
Academic Unit | School of Journalism and Communication (JOUR) Regulations: RO
Degree | 
Title | R-UG-7.5 Academic Regulations for Bachelor of Journalism

Program Requirements

**Bachelor** Continuation in Good Standing at subsequent Academic Performance Evaluations requires the standard minimum Major CGPA of Journalism

Students in the Bachelor 6.50 and Overall CGPA of Journalism are subject to the standard Academic Performance Evaluation (APE) process with the following additions and amendments: at least 5.00.

1. Promotion into the second year of the Journalism program requires the successful completion of 4.0 credits, including JOUR 1001 and JOUR 1002, by the end of the winter session of the student’s first year.

   a) Students are Continuation to Second Year Continuation in Good Standing at after the first APE if they have Academic Performance Evaluation will be guaranteed only to first year Journalism students taking JOUR 1001 and JOUR 1002, who achieve at least a Major B in one of the courses and at least a B+ in the other, as well as an Overall CGPA of at least 7.0 and an Overall CGPA of at least 7.0. 8.00 in first year on a minimum of 5.0 full credits.

   b) Students who do not achieve Good Standing but who have a Major CGPA of at least 6.0 and an Overall CGPA of at least 6.0 are on Academic Warning. Those on Academic Warning must complete Bachelor of Journalism A student who is not in Good Standing in the following 2.0 credits of Journalism courses by Bachelor of Journalism degree must leave the end of program with the winter session of status Continue in Alternate (CA) or the student’s second year, with a minimum final grade of C in each: status Dismissed from Program (DP). JOUR 2201, JOUR 2202, JOUR 2501. Students who do not meet this requirement must leave the program with the status Continue in Alternate (CA) or the status Dismissed from Program (DP).

   c) Students who do not achieve Good Standing and who have a Major CGPA of less than 6.0 or an Overall CGPA of less than 6.0 are required to leave the program with the status Continue in Alternate (CA) or the status Dismissed from Program (DP).

2. Students are in Good Standing at any subsequent APE if they have a Major CGPA of at least 6.5 and an Overall CGPA of at least 6.5.

3. Students who do not receive Good Standing at any subsequent Academic Performance Evaluation will be required to withdraw from the program with the status Continue in Alternate (CA) or the status Dismissed from Program (DP).

Transfer into second year of B.J.
Continuation to Second Year Continuation in Good Standing after the first Academic Performance Evaluation will be guaranteed only to first year Journalism students taking JOUR 1001 and JOUR 1002, who achieve at least a B in one of the courses and at least a B+ in the other, as well as an Overall CGPA of at least 8.00 in first year on a minimum of 5.0 full credits. The School also maintains a number of places in second year for students who wish to transfer from Carleton or elsewhere. Normally, offers are made to students with an overall CGPA equivalent to 10.00 (A-) or better. Continuation in Good Standing at subsequent Academic Performance Evaluations requires a Major CGPA of 6.50 and an Overall CGPA of at least 6.5. better.

Continuation in Good Standing at subsequent Academic Performance Evaluations requires the standard minimum Major CGPA of 6.50 and Overall CGPA of at least 5.00. Transfer from B.J. to B.J. Hum.

A student who has completed the first year of the B.J. in Good Standing may apply to transfer into the second year of the B.J. Hum. and will be accepted at the discretion of the School of Journalism and the College of Humanities, and must normally have an overall CGPA of 10.00 (A-) or higher. Transfers into higher years will not be considered.

General Prerequisites

1. General Prerequisite Students may not continue into 3000-level Journalism production or higher courses JOUR 3207, JOUR 3208, JOUR 3225, JOUR 3235 if they attain a unless the following three minimum grade of C in each of the following: requirements are met: JOUR 2201, JOUR 2202 and JOUR 2501.

2. Students may continue into the 4000-level Journalism production courses JOUR 4204, JOUR 4205, JOUR 4206, JOUR 4207 and JOUR 4208 if they attain a minimum grade of C in each of the following: JOUR 3207, JOUR 3208, JOUR 3225, JOUR 3235.

at least C standing in JOUR 2201; a CGPA of at least 6.50 over the courses JOUR 1001, JOUR 1002, JOUR 2201, JOUR 2202 and JOUR 2501; an Overall CGPA of at least 5.00.

<table>
<thead>
<tr>
<th>New Resources</th>
<th>No New Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summary</td>
<td>Changing the APE standards to 7.0 in the major/7.0 overall to advance to second year. Incorporating Academic Warning from first to second year. Specifying Good Standing to be a major CGPA of 6.5 and an overall CGPA of 6.5 at the second APE, subsequent APE and at graduation. JOUR courses in the major will need to be C or higher at graduation. Identified JOUR courses will be checked for C or higher by prerequisite checking for continuation into senior level.</td>
</tr>
</tbody>
</table>

| Rationale for change           | As requested by the university, the program is changing its admissions practice of admitting more students in the first year than can be accommodated in the upper years. Fewer students will be admitted into the program and promotion standards will be in line with programs such as the Bachelor of Public Affairs and Policy Management (BPAPM). |

| Transition/Implementation      | This will be effective for students admitted for Fall 2017 and will roll out beginning that term. |

| Program reviewer comments      | anshulsingh (10/21/16 1:57 pm): Rollback: As per request from Carol Craswell anshulsingh (10/31/16 11:04 am): Rollback: As per request from Carol Craswell sandrabauer (01/16/17 12:19 pm): Rollback: to add faculty steps to workflow |

Key: 1272
In Workflow

1. HUMM ChairDir UG
2. JOUR ChairDir UG
3. PA FCC
4. AS FCC
5. AS FBoard
6. PA FBoard
7. PRE SCCASP
8. SCCASP
9. Senate
10. CalEditor

Approval Path

1. 01/16/17 4:06 pm
   Shane Hawkins
   (shanehawkins): Approved for HUMM ChairDir UG
2. 01/17/17 8:09 am
   Carole Craswell
   (carolecraswell): Approved for JOUR ChairDir UG
3. 01/24/17 10:36 am
   Hugh Shewell
   (hughshewell): Approved for PA FCC
4. 01/31/17 1:47 pm
   Richard Mann
   (richardmann): Approved for AS FCC
5. 01/31/17 2:13 pm
   Richard Mann
   (richardmann): Approved for AS FBoard
6. 02/02/17 10:31 am
   Hugh Shewell
   (hughshewell): Approved for PA FBoard
7. 02/02/17 10:59 am
   Sandra Bauer
   (sandrabauer): Approved for PRE SCCASP
8. 02/07/17 11:10 am
   Dan Begin (danbegin): Approved for SCCASP

Date Submitted: 01/16/17 12:49 pm

Viewing: TBD-1390: R-UG-7.5 Bachelor of Journalism and Humanities

Last approved: 05/26/16 12:57 pm

Last edit: 02/07/17 11:03 am

Last modified by: carolecraswell

Changes proposed by: sandrabauer
Calendar Pages Using this Program

**Academic Performance Evaluation**

**Effective Date**

2017-18

**Workflow**

majormod-minormod

**Program Code**

TBD-1390

**Level**

Undergraduate

**Faculty**

Faculty of Public Affairs
Faculty of Arts and Social Sciences

**Academic Unit**

School of Journalism and Communication (JOUR). Regulations: RO
College of the Humanities

**Degree**

R-UG-7.5 Bachelor of Journalism and Humanities

**Program Requirements**

**Bachelor of Journalism and Humanities**

The Bachelor of Journalism and Humanities degree distinguishes between a student's Overall CGPA and their Core Humanities CGPA.

The Core Humanities CGPA is calculated on the basis of the following four courses: HUMS 1000, HUMS 2000, HUMS 3000, HUMS 4000.

**Continuation Regulations**

1. HUMS 1000, HUMS 2000, HUMS 3000, HUMS 4000. Promotion into Continuation Regulations Continuation in Good Standing after the second first Academic Performance Evaluation will be guaranteed only to first year of Bachelor of of Journalism and Humanities program requires the successful completion of 4.0 credits, including JOUR 1001 and JOUR 1002, by the end of the winter session of the student’s first year. students who:
a) Students are Continuation in Good Standing at subsequent Academic Performance Evaluations requires the first APE if they have completion of a minimum of 4.0 additional credits towards their degree, an Overall CGPA of at least 7.0 7.00 or higher and a Core Humanities CGPA of 7.00. 7.00 or higher.

b) Students After their first Academic Performance Evaluation, a student who do is not achieve in Good Standing but who have has an Overall CGPA of at least 6.0 6.00 or higher and a Core Humanities CGPA of at least 6.00 are 6.00 or higher is on Academic Warning. Warning, achieve a B+ or higher in one of JOUR 1001 and JOUR 1002 and a B+ or higher in the other. Those and an Overall CGPA of 8.00 or higher in first year on Academic Warning 5.0 full credits, which must complete be completed within the following 2.0 credits of Journalism courses by the end of the winter first fall/winter session of the student’s second year, with a minimum final grade of C in each: of enrolment within the program, and JOUR 2201, JOUR 2202, JOUR 2501. achieve a CGPA of 7.00 or higher in their Humanities Core. Students who do not meet this requirement must A student is required to leave the program with the status Continue in Alternate (CA) or the status Dismissed from Program (DP). (DP) if he or she fails to continue in Good Standing.

c) Students who do not achieve Good Standing and who have an Overall CGPA or a Core Humanities CGPA of less than 6.0 are required to leave the program with the status Continue in Alternate (CA) or the status Dismissed from Program (DP).

2. Students are achieve a CGPA of 7.00 or higher in Good Standing at any subsequent Academic Performance Evaluation if they have an Overall CGPA of 7.00 or higher and a Core their Humanities CGPA of 7.00 or higher. Core. A student who is not achieve a B+ or higher in Good Standing but who has an Overall CGPA one of 6.00 or higher JOUR 1001 and Core Humanities CGPA of 6.00 JOUR 1002 and a B+ or higher is on Academic Warning. in the other;

3. A number of places in second year are available for students who wish to transfer from Carleton or elsewhere. Normally, offers are made to students with an overall CGPA equivalent to 10.0 (A-) or higher. Continuation in Good Standing at subsequent Academic Performance Evaluations requires the completion of a minimum of 4.0 additional credits towards their degree, an Overall CGPA of 7.00 or higher and a Core Humanities CGPA of 7.00 or higher. After their first Academic Performance Evaluation, a student who is not in Good Standing but has an Overall CGPA of 6.00 or higher and Core CGPA of 6.00 or higher is on Academic Warning. A student is required to leave the program with the status Continue in Alternate (CA) or the status Dismissed from Program (DP) if:

a) the student was on Academic Warning and does not achieve Good Standing at the next Academic Performance Evaluation, OR

OR

b) the student has an Overall CGPA of less than 6.00 or 6.00 or a Humanities Core Humanities CGPA of less than 6.00 at any Academic Performance Evaluation.

Transfer into second year of the B.J.Hum.

The School maintains a A number of places in second year are available for students who wish to transfer from Carleton or elsewhere. Normally, offers are made to students with an overall CGPA equivalent to 10.00 10.0 (A-) or better. Higher. In exceptional circumstances (usually financial need or sickness), the School of Journalism and the College of the Humanities may also permit students to take a leave of absence for one year while remaining registered in the program. General Prerequisite Students may not continue into 3000-level or higher Journalism courses unless the following two minimum requirements are met: a grade of C or higher in JOUR 2201. Continuation in Good Standing a CGPA of at subsequent Academic Performance Evaluations requires an Overall CGPA of at least 7.0 6.50 over the courses JOUR 1001, JOUR 1002, JOUR 2201, JOUR 2205 and a Core Humanities CGPA of at least 7.0. JOUR 2501 Transferring from the B.J.Hum. An additional year may be necessary for transfer students to complete their degree requirements.

General Prerequisite
1. Students may continue into 3000-level in exceptional circumstances (usually financial need or sickness), the School of Journalism production courses JOUR 3207, JOUR 3208, JOUR 3225, JOUR 3235 if they attain and the College of the Humanities may also permit students to take a minum grade of C leave of absence for one year while remaining registered in each of the following: the program JOUR 2201, JOUR 2202 and JOUR 2501.

2. General Prerequisite Students may not continue into the 4000-level 3000-level or higher Journalism production courses JOUR 4204, JOUR 4205, JOUR 4206, JOUR 4207 and JOUR 4208 if they attain a minum grade of C in each of the following: unless the following two minimum requirements are met: JOUR 3207, JOUR 3208, JOUR 3225, JOUR 3235.

Transferring from the B.J.Hum. to the B.J. or B.Hum.

A student who wishes to transfer from the B.J.Hum. to the B.J. or the B.Hum. may apply through Admissions and will be accepted if, upon entry to the new program, they would be in Good Standing.

A student who fails any A.P.E. and who is consequently on Academic Warning or who must leave the program with Continue in Alternate (CA) may transfer into the B.J. or the B.Hum. only if they would be in Good Standing upon entry into their new degree.

New Resources

No New Resources

Summary

Changing the APE standards to 7.0 overall to advance to second year. Incorporating Academic Warning from first to second year. Specifying that Good Standing is an overall CGPA of 7.0 at the second APE, subsequent APEs and at graduation.

Identified JOUR courses will be checked for C or higher with prerequisite checking for continuation into senior level and for graduation.

Rationale for change

This is being done to improve program retention levels.

Transition/Implementation

This will be effective for students admitted for Fall 2017 and will roll out beginning that term.

Program reviewer comments

anshulsingh (10/21/16 1:57 pm): Rollback: As per request from Carol Craswell
anshulsingh (10/31/16 11:05 am): Rollback: As per request from Carol Craswell
sandrabauer (01/16/17 12:48 pm): Rollback: to add faculties to workflow
Co-operative Education Regulations
2017-18

B.A. Geography and Environmental Studies

1. Registered in the B.A. Honours Environmental Studies, Geography, Geography with a Concentration in Physical Geography, or Geomatics;
2. Obtained and maintained an overall minimum CGPA of 9.5 and a minimum major CGPA of 9.5;
3. Have obtained third-year standing;
4. Successfully completed, by the start-date of the first work term: term, PSVC-3000 and PSVC-3002
   1. the required second-year methods courses in their program (GEOG/ENST 2005; GEOG/ENST 2006)
   2. the required field course in their program (ENST 3900; GEOG 3000; GEOG 3010; GEOG 3030)
5. Obtained and maintained an overall minimum CGPA of 9.5 and a major CGPA of 9.5; Have obtained second-year standing; Be registered as a full-time student.

B.Sc. Geomatics and Physical Geography:

1. Registered in the Bachelor of Science (Honours) Programs in Physical Geography or Geomatics;
2. Obtained and maintained an overall minimum CGPA of 9.5 and a minimum major CGPA of 9.5;
3. Have obtained third-year second-year standing;
4. Successfully completed, by the start-date of the first work term:
   1. the required second-year methods courses in their program (GEOG/ENST 2005; GEOG/ENST 2006)
   2. the required field course in their program (ENST 3900; GEOG 3000; GEOG 3010; GEOG 3030)
5. Be registered as a full-time student.
## 2017-18 Curricular Change Proposals

<table>
<thead>
<tr>
<th>Ref</th>
<th>Code</th>
<th>Title</th>
<th>Status</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>HBA-11+</td>
<td>Canadian Studies B.A. Combined Honours</td>
<td>Edited</td>
<td>We are changing the CDNS program requirements to reflect new and deleted courses in INDG. We have removed the Practicum and Directed Studies courses from section 5. They will be put under the Electives within both CDNS and INDG.</td>
</tr>
<tr>
<td>2</td>
<td>HBA-11</td>
<td>Canadian Studies B.A. Honours</td>
<td>Edited</td>
<td>We are changing the CDNS program requirements to reflect new courses in INDG.</td>
</tr>
<tr>
<td></td>
<td>HBA-15+</td>
<td>English B.A. Combined Honours</td>
<td>Edited</td>
<td>Add ENGL 1009 and ENGL 1609 to requirement #1. Addendum: A request is being made for a late modification. That modification is the removal of ENGL 1609 (Introduction to Drama Studies) from the list of precluded first-year courses.</td>
</tr>
<tr>
<td>3</td>
<td>GBA-15</td>
<td>English B.A. General</td>
<td>Edited</td>
<td>Add ENGL 1009 and ENGL 1609 to requirement #1. Addendum: A request is being made for a late modification. That modification is the removal of ENGL 1609 (Introduction to Drama Studies) from the list of precluded first-year courses.</td>
</tr>
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## 2017-18 Curricular Change Proposals

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</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>HBA-15</td>
<td>English B.A. Honours</td>
<td>Edited</td>
<td>Add ENGL 1009 and 1609 to program requirement #1. Addendum: A request is being made for a late modification. That modification is the removal of ENGL 1609 (Introduction to Drama Studies) from the list of precluded first-year courses.</td>
</tr>
<tr>
<td>5</td>
<td>HBA-15A</td>
<td>English with Concentration in Creative Writing B.A. Honours</td>
<td>Edited</td>
<td>Add 1009 and 1609 to requirement #1. Also remove ENGL 3901 from program requirement #9. Addendum: A request is being made for a late modification. That modification is the removal of ENGL 1609 (Introduction to Drama Studies) from the list of precluded first-year courses.</td>
</tr>
<tr>
<td>6</td>
<td>HBA-15B</td>
<td>English with Concentration in Drama Studies B.A. Honours</td>
<td>Edited</td>
<td>(i) Add ENGL 1009 to requirement #1. (ii) Remove ENGL 2104, 2607, 3304, 3606, 3607 from Items 8, 9, and 10 respectively. Addendum: A request is being made for a late modification. That modification is the removal of ENGL 1609 (Introduction to Drama Studies) from the list of precluded first-year courses.</td>
</tr>
<tr>
<td>7</td>
<td>MA-28DH</td>
<td>M.A. Film Studies with Specialization in Digital Humanities</td>
<td>Edited</td>
<td>removed all mention of FILM 5000 (1.0 credit) and replaced with FILM 5010 (0.5 credit) and FILM 5020 (0.5 credit)</td>
</tr>
</tbody>
</table>
### 2017-18 Curricular Change Proposals

<table>
<thead>
<tr>
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<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>M5A</td>
<td>Minor in Drama Studies</td>
<td>Edited</td>
<td>(i) Add ENGL 1009 and ENGL 1609 to requirement #1.(ii) Delete ENGL 3304(iii) Add ENGL 3305 and 3306(iv) Remove ENGL 2607, 3606, 3607(v) Revise ENGL 2609, 3609, 4609Addendum: A request is being made for a late modification. That modification is the removal of ENGL 1609 (Introduction to Drama Studies) from the list of precluded first-year courses.</td>
</tr>
<tr>
<td>9</td>
<td>M5</td>
<td>Minor in English Language and Literature</td>
<td>Edited</td>
<td>Add ENGL 1009 and ENGL 1609 to requirement #1.Addendum: A request is being made for a late modification. That modification is the removal of ENGL 1609 (Introduction to Drama Studies) from the list of precluded first-year courses.</td>
</tr>
<tr>
<td>Code</td>
<td>Title</td>
<td>Status</td>
<td>Summary</td>
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<td>-------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>ENGL 1000</td>
<td>ENGL 1000: Literature, Genre, Context</td>
<td>Edited</td>
<td>Addendum: A request is being made for a late modification. That modification is the removal of ENGL 1609 (Introduction to Drama Studies) from the list of precluded first-year courses.</td>
<td></td>
</tr>
<tr>
<td>ENGL 1100</td>
<td>ENGL 1100: Literature, Law, and Criminality</td>
<td>Edited</td>
<td>Addendum: A request is being made for a late modification. That modification is the removal of ENGL 1609 (Introduction to Drama Studies) from the list of precluded first-year courses.</td>
<td></td>
</tr>
<tr>
<td>ENGL 1200</td>
<td>ENGL 1200: Literature, Science, and Technology</td>
<td>Edited</td>
<td>Addendum: A request is being made for a late modification. That modification is the removal of ENGL 1609 (Introduction to Drama Studies) from the list of precluded first-year courses.</td>
<td></td>
</tr>
<tr>
<td>ENGL 1300</td>
<td>ENGL 1300: Literature, Psychology, and the Mind</td>
<td>Edited</td>
<td>Addendum: A request is being made for a late modification. That modification is the removal of ENGL 1609 (Introduction to Drama Studies) from the list of precluded first-year courses.</td>
<td></td>
</tr>
<tr>
<td>ENGL 1400</td>
<td>ENGL 1400: Literature, Art, and Culture</td>
<td>Edited</td>
<td>Addendum: A request is being made for a late modification. That modification is the removal of ENGL 1609 (Introduction to Drama Studies) from the list of precluded first-year courses.</td>
<td></td>
</tr>
<tr>
<td>ENGL 1609</td>
<td>ENGL 1609: Introduction to Drama Studies</td>
<td>Edited</td>
<td>Add additional material to the course description. Addendum: A request is being made for a late modification. That modification is the removal of ENGL 1609 (Introduction to Drama Studies) from the list of precluded first-year courses.</td>
<td></td>
</tr>
<tr>
<td>FYSM 1004</td>
<td>FYSM 1004: Literature, Genre, Context</td>
<td>Edited</td>
<td>Addendum: A request is being made for a late modification. That modification is the removal of ENGL 1609 (Introduction to Drama Studies) from the list of precluded first-year courses.</td>
<td></td>
</tr>
</tbody>
</table>
Viewing: **MA-28DH : M.A. Film Studies with Specialization in Digital Humanities**

Last approved: 03/17/16 1:40 pm

Last edit: 01/20/17 4:00 pm

Last modified by: kringuth

Changes proposed by: kringuth

**In Workflow**
1. ARTC ChairDir GR
2. GRAD FCC
3. GRAD FBoard
4. PRE SCCASP
5. SCCASP
6. CalEditor

**Approval Path**
1. 01/20/17 4:37 pm  
   Kristin Guth (kringuth): Approved for ARTC ChairDir GR
2. 01/23/17 3:26 pm  
   Leslie Macdonald-Hicks (lesliemacdonaldhicks): Approved for GRAD FCC
3. 02/01/17 12:59 pm  
   Leslie Macdonald-Hicks (lesliemacdonaldhicks): Approved for GRAD FBoard
4. 02/01/17 2:40 pm  
   Sandra Bauer (sandrabauer): Approved for PRE SCCASP
5. 02/07/17 10:20 am  
   Dan Begin (danbegin): Approved for SCCASP

**History**
1. Mar 17, 2016 by lauriejaeger
Program Requirements

M.A. Film Studies with Specialization in Digital Humanities - Thesis stream (5.0 credits)

1. 1.0 credit in:

   FILM 5000 [0.0]  
   Course FILM 5000 Not Found
   FILM 5010 [0.5]  
   Film Theory, History, and Critical Methodologies I
   FILM 5020 [0.5]  
   Film Theory, History, and Critical Methodologies II

2. 1.5 additional credit

3. 1.5 credits in:

   FILM 5909 [1.5]  
   M.A. Thesis

4. 0.5 credit in:

   DIGH 5000 [0.5]  
   Issues in the Digital Humanities

5. 0.5 credit in DIGH (DIGH 5011, DIGH 5012, or annually-listed DIGH course)

6. 0.0 credit in DIGH 5800

Total Credits 5.0

M.A. Film Studies with Specialization in Digital Humanities - Research Essay stream (5.0 credits)

1. 1.0 credit in:

   FILM 5000 [0.0]  
   Course FILM 5000 Not Found
   FILM 5010 [0.5]  
   Film Theory, History, and Critical Methodologies I
   FILM 5020 [0.5]  
   Film Theory, History, and Critical Methodologies II

2. 2.0 credits in additional course work, 0.5 credit of which can include one of:

   FILM 5801 [0.5]  
   Graduate Internship (see note, below)

3. 1.0 credit in:

   FILM 5908 [1.0]  
   Research Essay

4. 0.5 credit in:

   DIGH 5000 [0.5]  
   Issues in the Digital Humanities

5. 0.5 credit in DIGH (DIGH 5011, DIGH 5012, or annually-listed DIGH course)

6. 0.0 credit in:

   DIGH 5800 [0.0]  
   Digital Humanities: Professional Development

Total Credits 5.0

Note: in choosing the two additional credits beyond the core seminars, students may take 0.5 credits of coursework outside the Film Studies program subject to the approval of the Graduate Supervisor.

M.A. Film Studies with Specialization in Digital Humanities - Coursework stream (5.0 credits)

1. 1.0 credit in:
2. **2.5 credits** in additional course work, 0.5 credit of which can include one of:
   - **FILM 5801 [0.5]** Graduate Internship

3. **0.5 credit** in:
   - **DIGH 5000 [0.5]** Issues in the Digital Humanities

4. **1.0 credit** in DIGH ([DIGH 5011, DIGH 5012](#), or annually listed DIGH course)

5. **0.0 credit** in:
   - **DIGH 5800 [0.0]** Digital Humanities: Professional Development

Total Credits: 5.0

**Note:** in choosing the 2.5 additional credits in additional course work, students may take a 0.5 credit Film Studies course at the 4000-level subject to the approval of the Graduate Supervisor.

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**New Resources**

No New Resources

**Summary**

removed all mention of FILM 5000 (1.0 credit) and replaced with FILM 5010 (0.5 credit) and FILM 5020 (0.5 credit)

The courses listed in the calendar as program requirements must be changed to match the course changes proposed for 2017-2018. The Film Studies program wishes to increase the flexibility of the program for students. The proposed change will allow a student who performs successfully in the fall term but who then must unexpectedly withdraw in the winter to receive credit for the successful fall-term performance in the new FILM 5010. It will also allow a student, in exceptional circumstances, to complete the fall term in the first year and then the winter term in the second year, or to begin the program in the winter term and then complete it in the subsequent fall.

**Transition/Implementation**

changes can be implemented in 17-18, no new resources required

**Program reviewer comments**

Key: 941