

QUALIFYING COURSES FOR THE DEAN'S MULTIDISCIPLINARY UNDERGRADUATE RESEARCH LIST

Members of the Academic Committee are invited to consider the list of courses that qualify for the Dean's Multidisciplinary Undergraduate Research List:

- For your reference, please review the additions/deletions/revisions from the last year, as well as new courses which the Office for Undergraduate Research in Science intends to add to the list.
- Are there any other new research courses currently being created or pending final approval?
- Considering the main list below of currently approved courses, are there any that ought to be removed?

Background: What is the Dean's Multidisciplinary Undergraduate Research List

This following information is provided to students both on the Office for Undergraduate Research in Science website at <http://www.mcgill.ca/science/research/ours/dmurl> and also in the Calendar at http://www.mcgill.ca/study/2012-2013/university_regulations_and_resources/undergraduate/ug_qi_graduation_honours_faculty_of_science_deans_multidisc_ug_research_list

The Dean's Multidisciplinary Undergraduate Research List (DMURL) recognizes B.Sc. students who have participated in substantial and broad undergraduate research.

To be placed on the Dean's Multidisciplinary Undergraduate Research List at graduation time, a student must:

- complete at least 9 credits of research-based courses, taken for a letter grade,
- where qualifying courses are either specified in the list of approved research courses (<http://www.mcgill.ca/science/ours/researchcourses/>, and reproduced below),
- or are approved on a case-by-case basis by the Faculty of Science.

Furthermore:

- at least one qualifying course, worth at least 3 credits, must be from a different unit than the other research-based courses; and
- every qualifying course must have been completed with a grade of C or above; and
- the average GPA over all qualifying courses must be 3.0 or above.

If these requirements are met, the mention "Dean's Multidisciplinary Undergraduate Research List" will be recorded on the student's transcript at graduation time.

No application is necessary for students who have taken courses from the approved list; all B.Sc. graduating students' dossiers are considered by the Office for Undergraduate Research in Science.

However, if students have taken a research course not already on the approved list, and wish for this course to be counted toward the Dean's Multidisciplinary Undergraduate Research List, they must apply. Qualifying courses may be offered either within the Faculty of Science or outside. For information on how to apply, students should contact the Office for Undergraduate Research in Science at least 4 months prior to graduation (e.g., February 1, for June graduation; July 1, for November graduation; August 1, for February graduation).

What is the list of approved research-based courses? How was it created and revised?

In 2005, members of the academic committee were asked to propose courses from their units which should be on this list. All courses involve a significant research component and a final written report or thesis. Reading courses were excluded. The list was reviewed and approved at the Academic Committee meeting of December 13, 2005. Since 2005, courses have been added by OURS in consultation with the Associate Dean (Academic), reflecting new course offerings. The list was also reviewed with the Academic Committee in September 2009 and September 2011. The current list is given below.

Additions/deletions/revisions from 2011-2012; new courses to be added to the list.

Procedural changes:

- DMURL was created in 2005 with a specific list of courses that would qualify for the distinction. In September 2011, following discussion with the Academic Committee, an option was added for courses not already on the approved list; students can apply to the Office for Undergraduate Research in Science for special consideration of such courses. Such requests will be reviewed with the Associate Dean (Academic), and if necessary, the offering department. (Revised 2011-09)

Course changes:

- BIOC 462, Research Lab in Biochemistry, 6 cr: added 2011-09
- BIOL 451, Res. In Ecol&Develop in Africa, 3 cr: added 2011-09
- GEOG 451, Res. In Society & Dev in Africa, 3 cr: added 2011-09
- PSYT 400D1/D2, Research Project in Psychiatry, 6 cr: added 2012-04
- HGEN 396, Undergraduate Research Project, 3 cr, pending final approval: will be added if/when approved
- Are there any other courses that should be added to this list, as a result of courses created or modified? Or deletions?

About this list:

- In the event of *course name changes* since inception, this is noted in the comments field.
- *Some courses have been removed from this list* at the recommendation of the Associate Dean (Academic). They are listed in a separate table below. They have not been offered for several years, or they are currently offered as reading courses but have not been offered as research courses in several years.
- *Multi-semester courses* (suffix D1/D2, N1/N2) are denoted by “Span course” in the comments field.
- *Independent studies: research or reading?* There exist courses in which some students are given reading courses and other students are given research projects. When OURS reviews dossiers of candidates for graduation to determine their eligibility for DMURL, departmental validation is required to determine whether the course was taken as a reading project or a research project. *These courses are labeled with an asterisk (*) in the table below.*

Course	Title	Cr.	Comment	Research or reading?
AGRI 519	Sustainable Development Plans	6	Restricted to students in Barbados Field Study	

			Semester. Approved course for B.Sc. Environment majors.
ANAT 396	Undergraduate Research Project	3	
ANAT 432	Honours Research Project	9	
ATOC 396	Undergraduate Research Project	3	
ATOC 480	Honours Research Project	3	
BIOC 396	Undergraduate Research Project	3	
BIOC 462	Research Lab in Biochemistry	6	Added 2011-09
BIOC 491	Independent Research	6	
BIOL 396	Undergraduate Research Project	3	
BIOL 451	Res. In Ecol&Develop in Africa	3	Added 2011-09
BIOL 466	Independent Research Project 1	3	
BIOL 467	Independent Research Project 2	3	
BIOL 468	Independent Research Project 3	6	
BIOL 469	Independent Research Project 4	9	Was "Independent Studies 2"
BIOL 479	Honours Research Project 1	9	Span course
BIOL 480	Honours Research Project 2	12	Span course
CHEM 396	Undergraduate Research Project	3	
CHEM 470	Research Project 1	6	
CHEM 480	Research Project 2	3	
CHEM 490	Research Project 3	3	Span course
COGS 396	Undergraduate Research Project	3	
COGS 401	Research Cognitive Science 1	6	
COGS 402	Research Cognitive Science 2	6	
COMP 396	Undergraduate Research Project	3	
COMP 400	Technical Project & Report	3	
COMP 401	Project in Biol. & Comp. Sci.	3	
ENVR 396	Undergraduate Research Project	3	
ENVR 401	Environmental Research	3	
ENVR 451	Research in Panama	6	
ENVR 490	Independ. Study in Environment	3	
ENVR 495	Honours Research	3	Span course
EPSC 396	Undergraduate Research Project	3	
EPSC 480	Honours Research Project	3	Span course
EPSC 482	Independent Studies 1	3	*
GEOG 396	Undergraduate Research Project	3	
GEOG 451	Res. In Society & Dev in Africa	3	Added 2011-09
GEOG 490	Geography: Independent Studies	3	*
GEOG 491	Honours Research	3	Span course
GEOG 492	Joint Honours Research	3	Span course
MATH 396	Undergraduate Research Project	3	
MATH 410	Majors Project	3	
MATH 470	Honours Research Project	3	

MIMM 396	Ugrad Research Proj-Microbiol	3	Was "Undergraduate research project" (Split Microbiol. from Immunol.)
MIMM 397	Ugrad Research Proj - Immunol	3	(Split Microbiol. from Immunol.)
MIMM 501	Hons Research Proj - Immunol	12	Span course (Split Microbiol. from Immunol.)
MIMM 502	Hons Research Proj - Microbiol	12	Span course. Was "Honours Research Project" (Split Microbiol. from Immunol.)
NSCI 396	Undergraduate Research Project	3	
NSCI 410	Independent Research 1	6	
NSCI 420	Independent Research 2	9	Span course
PHAR 599	Pharmacology Research Project	6	
PHGY 396	Undergraduate Research Project	3	
PHGY 419	Project&Seminar in Immunology	9	Span course
PHGY 461	Experimental Physiology	9	Span course
PHYS 396	Undergraduate Research Project	3	
PHYS 449	Majors Research Project	3	
PHYS 459	Honours Research Thesis	3	Span course
PHYS 479	Honours Research Project	3	
PHYS 489	Special Project	3	
PSYC 380	Honours Research Project Sem	9	Span course
PSYC 395	Psychology Research Project 1	6	
PSYC 396	Undergraduate Research Project	3	
PSYC 450	Research Project & Seminar	9	Span course
PSYC 494	Psychology Research Project	9	Span course
PSYC 495	Psychology Research Project 2	6	
PSYC 496	Senior Honours Research 1	6	
PSYC 497	Senior Honours Research 2	6	
PSYC 498	Senior Honours Research	9	Span course
PSYT 400	Research Project in Psychiatry	6	Span course; added 2012-04
REDM 396	Undergraduate Research Project	3	

Courses removed from this list

Course	Credits	When removed	Why removed; Notes
BIOC 460 Advanced Lab in Biochemistry	6	2011-09	Course retired; last offered in academic year 2008/09. (However, see new course BIOC 462, included on the list above.)
BIOL 377 Independent Reading Project (Was "Independent Studies 1")	3	2011-09	Formerly, this course was offered as either a reading or research courses. BIOL 377 is now only a reading course. (There are many other Biology research courses; see list above.)
BIOL 471 Independent Studies 3	6	2011-09	BIOL 471/477/478 were last offered in academic year 2006/2007. They were offered as either reading or research courses. (There are many other Biology
BIOL 477 Independent	3		

Studies 4
BIOL 478 Independent
Studies 5

3

research course; see list above.)