

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 reference only, you may review the changes from the last year.
- 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 www.mcgill.ca/science/research/ours/dmurl and also in the Calendar at http://www.mcgill.ca/study/2015-2016/university_regulations_and_resources/undergraduate/gi_graduation_honours#booknode-46682. It was revised in Spring/Summer 2013 when the DMURL was extended to B.A. & Sc. students

The Faculty of Science Dean's Multidisciplinary Undergraduate Research List recognizes Bachelor of Science (B.Sc.) and Bachelor of Arts and Science (B.A. & Sc.) students who have participated in substantial and broad undergraduate science research.

Eligibility

To be placed on the Faculty of Science 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 science research courses (<http://www.mcgill.ca/science/research/ours/researchcourses> and reproduced below),
- or are pre-approved by the Faculty of Science, for other undergraduate science research courses.

Furthermore, considering all qualifying science research-based courses on your transcript at graduation time:

- at least one 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.

Application

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

In exceptional circumstances, if students have taken a science 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. A qualifying course involves a science research project as its primary focus, culminating in a substantive written report. **Ineligible** courses include: reading courses; BASC 396 and BASC 449; and courses offered by the Faculty of Arts. 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 (including three such courses added in 2012-13). The list was also reviewed with the Academic Committee in September 2009, September 2011, September 2012, September 2013, and September 2014. The current list is given below.

Additions or modifications?

For consideration:

- Are there any other courses that should be added to this list, as a result of courses already created, or course changes in process, or courses recently modified?
- Or proposed deletions?

Changes from 2014/2015, for reference

- CHEM 490 Research Project 3: Removed (course was retired a few years ago)
 - GEOG 460, Research in Sustainability: Added (following request from a student)
 - MDPH 396 Undergraduate Research Project: Added (new course)
 - PHAR 396 Undergraduate Research Project: Added (new course)
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About this list:

- *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?* 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.* (EPSC 482 was reading-or-research, and is **now** research-only. (GEOG

490 was reading-or-research, and is **now** reading-only, but remains on the list for students who took it as research in prior years.)

Course	Title	Cr	Comment	Research or reading?
AGRI 519	Sustainable Development Plans	6	Added 2010/01/15. (Approved course for B.Sc. Envr.)	
ANAT 396	Undergraduate Research Project	3		
ANAT 432	Honours Research Project	9	Span course	
ATOC 396	Undergraduate Research Project	3		
ATOC 480	Honours Research Project	3		
BIOC 396	Undergraduate Research Project	3	(Not on very first list years ago)	
BIOC 462	Research Lab in Biochemistry	6	Added 2011/09	
BIOC 491	Independent Research	6		
BIOL 396	Undergraduate Research Project	3		
BIOL 451	Research in Ecology and Development 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		
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		
COGS 396	Undergraduate Research Project	3		
COGS 401	Research Cognitive Science 1	6		
COGS 402	Research Cognitive Science 2	6	Retired 2014/01	
COGS 444	Honours Research	6	Added 2013/07	
COMP 396	Undergraduate Research Project	3		
COMP 400	WAS: Technical Project & Report NOW: Honours Project in Comp Sci	3		
COMP 401	Project in Biol. & Comp. Sci.	3	(Not on very first list years ago)	
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 470	Undergraduate Thesis Research	3	Span course (Added 2014/01)	
EPSC 480	WAS: Honours Research Project NOW: Honours Research Thesis	3	Span course	

EPSC 482	WAS: Independent Studies 1 NOW: Res in Earth & Planetary Sci	3	*
ESYS 480	Honours Research Project	6	Span course. Added 2013/07.
GEOG 396	Undergraduate Research Project	3	
GEOG 451	Research in Society and Development in Africa	3	Added 2011/09
GEOG 460	Research in Sustainability	3	Added 2014/2015
GEOG 489	Independent Research in Geog	3	Added 2014/01
GEOG 490	WAS: Geography: Independent Studies. NOW: Independent readings in Geog	3	*
GEOG 491	Honours Research	3	Span course
GEOG 492	Joint Honours Research	3	Span course
HGEN 396	Human Genetic Research Project	3	Added 2013/01
MATH 396	Undergraduate Research Project	3	
MATH 410	Majors Project	3	
MATH 470	Honours Research Project	3	
MDPH 396	Undergraduate Research Project	3	Added 2015/01
MIMM 396	Ugrad Research Proj-Microbiol	3	
MIMM 397	Ugrad Research Proj - Immunol	3	(Not on very first list years ago)
MIMM 501	Hons Research Proj - Immunol	12	Span course. (Not on very first list years ago)
MIMM 502	Hons Research Proj - Microbiol	12	Span course
NSCI 396	Undergraduate Research Project	3	(Not on very first list years ago)
NSCI 410	Independent Research 1	6	(Not on very first list years ago)
NSCI 420	Independent Research 2	9	BOTH span course AND 1-term course. (Not on very first list years ago)
NSCI 430	Honours Research Project	9	Span course. Added 2013/07.
PHAR 396	Undergraduate Research Project	3	Added 2014/09
PHAR 598	Honours Pharmacology Research Project	6	Span course. Added 2014/01
PHAR 599	WAS: Res Projects in Pharmacology NOW: Pharmacology Research Project	6	BOTH span course AND one-term course. Added 2009/09.
PHGY 396	Undergraduate Research Project	3	
PHGY 419	WAS: Project&Seminar in Immunology NOW: Immunology Research Project	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	(Not on very first list years ago)
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 2013/01.
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. <i>(However, see new course BIOC 462, included on the list above.)</i>
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. <i>(There are many other Biology research courses; see list above.)</i>
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. <i>(There are many other Biology research course; see list above.)</i>
BIOL 477 Independent Studies 4	3		
BIOL 478 Independent Studies 5	3		
CHEM 490 Research Project 3	3	2015-01	Course retired; last offered in the 2012-2013 academic year.