

New Course

Proposal Reference : 8608
 Number
 PRN Alias : 13-14#2021
 Version No : 3
 Submitted By : Ms Chantal Grignon
 Edited By : Ms Chantal Grignon

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	New Data					
Program Affected?	N					
Program Change Form Submitted?						
Subject/Course/Term	PHAR 396 • one term					
Credit Weight or CEU's	3 credits					
Course Activities	<table border="1"> <tr> <td>Schedule Type</td><td>Hours per week</td></tr> <tr> <td>PW - Project</td><td>9</td></tr> </table> <p> Total Hours per Week : 9 Total Number of Weeks : 13 </p>		Schedule Type	Hours per week	PW - Project	9
Schedule Type	Hours per week					
PW - Project	9					
Course Title	<table border="1"> <tr> <td>Official Course Title :</td><td>Pharmacology Research Project</td></tr> <tr> <td>Course Title in Calendar :</td><td>Pharmacology Research Project</td></tr> </table>		Official Course Title :	Pharmacology Research Project	Course Title in Calendar :	Pharmacology Research Project
Official Course Title :	Pharmacology Research Project					
Course Title in Calendar :	Pharmacology Research Project					
Rationale	<p> This new course coordinated by the Department of Pharmacology is an Undergraduate Research Project course. This course will avail students to research laboratories that focus on Pharmacology. It will expand the current options available to students and thus further enhance the interdisciplinary nature of the undergraduate program in the life sciences. This course will be added to the roster of 396 series of Undergraduate Research Project courses currently available to Science students (http://www.mcgill.ca/science/research/ours/396). </p>					
Responsible Instructor						
Course Description	Independent research project with a final written report and an oral presentation.					
Teaching Dept.	0253 : Pharmacology and Therapeutics					
Administering Faculty/Unit	SC : Faculty of Science					

Prerequisites	Completion of at least one undergraduate term with cGPA of 3.0. Web Registration Blocked? : Y Minimum Grade or Test Scores : C Prereq course or test taken at the same time? : N
Corequisites	
Restrictions	This course cannot be taken under the S/U option. Departmental permission required. Students cannot be supervised by the same instructor for two 396 Science courses. Open to students in programs offered by the Faculty of Science.
Supplementary Calendar Info	1. Note: Enrollment may be limited. Students are advised to start the application process well before the start of the term and to plan for an alternative course in the case that no suitable project is available. Individual projects may be suggested each term which may have project-specific prerequisites. Students may also approach professors to devise their own projects. Some projects may be accessible to students in other disciplines. See http://www.mcgill.ca/science/research/ours/396 for more information about available projects and application forms and procedures.
Additional Course Charges	
Campus	Downtown
Projected Enrollment	5
Requires Resources Not Currently Available	N
Explanation for Required Resources	
Required Text/Resources Sent To Library?	
Library Consulted About Availability of Resources?	
Consultation Reports Attached?	
Effective Term of Implementation	201409
File Attachments	<ul style="list-style-type: none"> 396-info.pdf View
To be completed by the Faculty	

For Continuing Studies Use

Approvals Summary

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Version No.	Departmental Curriculum Committee	Departmental Meeting	Departmental Chair	Other Faculty	Curric/Academic Committee	Faculty	SCTP	Version Status
3								Submitted to Curriculum/Academic Committee for approval Edited by: Chantal Grignon on: Apr 3 2014
2								Submitted to Curriculum/Academic Committee for approval Edited by: Chantal Grignon on: Apr 1 2014
1								Submitted to Curriculum/Academic Committee for approval Created on: Apr 1 2014

Information about “396” courses, which would apply to the proposed PHAR 396 course

The “396” courses offered by the Faculty of Science are described on the Science website at www.mcgill.ca/science/research/ours/396/, where students and professors can also find the web-based project proposal form.

These documents currently refer to the other 396 courses (ANAT 396, BIOC 396, HGEN 396, PHGY 396, etc.). PHAR 396 would be added once approved.

PDFs from the website are attached.

Description of 396 courses:

- pp. 2-3
- From <http://www.mcgill.ca/science/research/ours/396>

How 396 courses work:

- pp. 4-5
- From <http://www.mcgill.ca/science/research/ours/396/how>

Information for professors:

- pp. 6-7
- From <http://www.mcgill.ca/science/research/ours/396/profs>

Project proposal form:

- pp. 8-12
- From <http://www.mcgill.ca/science/research/ours/396/form>
- **Please note** that this is a **printout** of a **webform**. Online, some fields are drop-down menus. The form generates an email, which students or professors print, for collecting signatures and approval.

- Victor Chisholm, Undergraduate Research Officer, victor.chisholm@mcgill.ca, 2014-04-03

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396 undergraduate research project courses

If you are looking for the **project list** of current and past project offerings, [please go here \(https://www.mcgill.ca/science/research/ours/396/listing\)](https://www.mcgill.ca/science/research/ours/396/listing).

For **general information about 396 courses**, please continue reading this page.

On this page: [Purpose](#) | [What kind of courses are these? Who can take them?](#) | [General prerequisites](#) | [Participating departments, schools, or programs](#)

Purpose

These courses are designed to increase undergraduate research opportunities by

- **broadening the scope** of research courses,
- making them **available to more students**, and
- making the undergraduate research component **more interdisciplinary**.

What kind of courses are these? Who can take them?

396 courses:

- contain a significant research component that requires substantial independent work by students;
- feature a final report worth at least 50% of the final grade;
- are elective courses;
- can be taken outside your own department (i.e., by students whose major is outside the offering unit);
- count towards the requirements of the [Dean's Multidisciplinary Undergraduate Research List \(DMURL\)](https://www.mcgill.ca/science/research/ours/dmurl) (<https://www.mcgill.ca/science/research/ours/dmurl>);
- can be taken after one term of undergraduate studies; and
- are not available under the satisfactory/unsatisfactory option.

General prerequisites

- At least one term of undergraduate studies, a CGPA of at least 3.0, or permission of instructor to waive these requirements.
- Open to students in any program offered by the Faculty of Science.
- A project proposal form must be completed by the student and instructor and approved by the unit head or his/her delegate* before the start of the term. (* For NSCI 396 and COGS 396, it is the Neuroscience Program Director or the Cognitive Science Program Director, and the Interdisciplinary Programs Adviser.)
- Instructors will list project-specific prerequisites with the [project description listings \(https://www.mcgill.ca/science/research/ours/396/listing\)](https://www.mcgill.ca/science/research/ours/396/listing).
- A student may take more than one 396 course, but cannot be supervised by the same instructor for two 396 Science courses. Each 396 course must also be for a different project.

Participating departments, schools, or programs

The following departments, schools, or programs offer 396 courses. See our [list of projects \(https://www.mcgill.ca/science/research/ours/396/listing\)](https://www.mcgill.ca/science/research/ours/396/listing) currently offered.

Department, school, or program	Course number
Anatomy and Cell Biology	ANAT 396 Undergraduate Research Project
Atmospheric and Oceanic Sciences	ATOC 396 Undergraduate Research Project
Biochemistry	BIOC 396 Undergraduate Research Project
Biology	BIOL 396 Undergraduate Research Project
Chemistry	CHEM 396 Undergraduate Research Project
Cognitive Science	COGS 396 Undergraduate Research Project
Computer Science	COMP 396 Undergraduate Research Project
Earth and Planetary Sciences	EPSC 396 Undergraduate Research Project
Environment, McGill School of	ENVR 396 Undergraduate Research Project
Geography	GEOG 396 Undergraduate Research Project
Human Genetics (<i>NEW IN WINTER 2013</i>)	HGEN 396 Human Genetic Research Project
Mathematics and Statistics	MATH 396 Undergraduate Research Project
Microbiology and Immunology - MICROBIOLOGY	MIMM 396 Ugrad Research Proj-Microbiol
Microbiology and Immunology - IMMUNOLOGY	MIMM 397 Ugrad Research Proj - Immunol
Neuroscience	NSCI 396 Undergraduate Research Project
Physics	PHYS 396 Undergraduate Research Project
Physiology	PHGY 396 Undergraduate Research Project
Psychology	PSYC 396 Undergraduate Research Project
Redpath Museum	REDM 396 Undergraduate Research Project

Classified as 396 (</science/category/tags/396>) 396 courses (</science/category/tags/396-courses>)

Updated on Wed, 2013-08-14 12:36

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How does it all work?

Units (department, school, program, etc.) will determine the terms in which they will offer their 396 courses and arrange to open a section for each of those terms.

Instructors will prepare project descriptions and submit them electronically to the Office for Undergraduate Research in Science (OURS). The **forms** (<https://www.mcgill.ca/science/research/ours/396/form/>) are available on the OURS website.

OURS (the Office for Undergraduate Research in Science) will maintain a **page where students can view project descriptions** (<https://www.mcgill.ca/science/research/ours/396/listing/>).

Students interested in a potential project (that has already been submitted by a professors and **posted** (<https://www.mcgill.ca/science/research/ours/396/listing/>)) will communicate with the instructor proposing the project. Instructions on how to apply are indicated on each project description.

Students interested in a new project (that is not yet **posted** (<https://www.mcgill.ca/science/research/ours/396/listing/>)) may ask their proposed supervisors to fill out a new **form** (<https://www.mcgill.ca/science/research/ours/396/form/>).

When an **instructor and student** agree upon a project, they should print, complete, and sign the form, and then submit the form to the unit head (or his/her delegate).

NOTE: Subsequent aspects of approval and registration for the course are handled by the unit offering the course.

In most cases, "unit" means an academic department (Biology, Chemistry, etc.). For NSCI 396 and COGS 396, it is the Neuroscience Program Director or the Cognitive Science Program Director, and the Interdisciplinary Programs Adviser.

The **unit head** or his/her delegate approves (or does not approve) the proposal form.

The **unit** should notify students if their projects are approved or not. For successful applicants, the unit should give the student permission to register for the course on Minerva. The unit may need to open a section on Minerva.

The **unit** should also notify OURS as each project is filled or disapproved, so that **OURS** can change the project status on the website to indicate that the project is no longer available for applicants. The unit should send approved forms with signatures to OURS (either fax 514-398-8102, or internal mail to Dawson Hall 408-A, or PDF scan + email).

This application, selection, and registration process should be completed before the beginning of the project's term.

The **instructor and any appropriate researchers** advise students throughout the term.

Some **units or instructors** may want to give introductory lectures, meetings, or lab safety instruction to groups of students enrolled in the course.

The **student** must present his/her final report to the instructor in charge of the project before the last day of classes.

The **instructor** in charge of the project is responsible for assigning a letter grade to the project, and providing feedback about the report to the student.

Each **unit** offering a 396 course must have a person responsible for submitting the grades for the course, for each term the course is offered.

Selected final reports may be submitted to OURS for possible posting on the OURS website. **OURS** will provide an appropriate form documenting permission from both the student and instructor to post the report.

Updated on *Mon, 2012-12-10 16:18*

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For professors

On this page: [What are '396' courses? What are the prerequisites? Who offers them?](#) | [Forms](#) | [Why fill out this form?](#) | [What is next? How will students apply? What do I need to do?](#) | [Questions?](#)

What are '396' courses? What are the prerequisites? Which departments and programs offer them?

They are 3-credit, elective, undergraduate research project courses. They can be taken by students from other departments (e.g., a student majoring in Biology can take CHEM 396 with a Chemistry professor). They are not restricted to final-year students. For more details, please see the ['396' introduction page \(https://www.mcgill.ca/science/research/ours/396/\)](https://www.mcgill.ca/science/research/ours/396/).

Forms

This web-based [research project proposal form \(https://www.mcgill.ca/science/research/ours/396/form/\)](https://www.mcgill.ca/science/research/ours/396/form/) allows you (a McGill instructor) to offer a '396' undergraduate research project.

You may use this form to propose an "open" opportunity with a defined project, for students to apply to; or you may complete this form after having identified both the student and the project.

If you have any questions about this web-based form (or the former Word or LaTeX forms), please contact Victor Chisholm in the Office for Undergraduate Research in Science. See the bottom of this page for contact details.

Why fill out the '396' research project proposal form?

The signed research project proposal form will allow the student to seek departmental permission to register for the course.

The research project proposal form establishes what the student will work on, the grading scheme, and the project end date.

Even if you have already identified the student for this project, please fill it out and submit electronically; but take note to check off either "Already taken; no more positions available this term" or "Taken, but contact me for other possible projects this term".

Submitting the electronic form contributes to the Office for Undergraduate Research in Science's website's listing of past, present, and upcoming 396 research projects. Current students, potential applicants to McGill, and the public will see *summaries of undergraduate student research* in Science at McGill.

What is next? How will students apply? What do I need to do?

See our ["How does it all work? \(https://www.mcgill.ca/science/research/ours/396/how/\)"](https://www.mcgill.ca/science/research/ours/396/how/) page and then fill out the [form \(https://www.mcgill.ca/science/research/ours/396/form/\)](https://www.mcgill.ca/science/research/ours/396/form/).

Is funding available?

Up to and including Fall 2010-2011, the Dean of Science provides \$300.00 per project to defray the cost of extra resources such as laboratory supplies or specialized software. As many projects as possible will be funded from the budget available. These funds are transferred at the end of the semester, to the supervisor's department, for eligible projects, if the signed project approval forms have been received by the Office for Undergraduate Research

Effective 2010-2011, this funding is no longer available.

Questions?

Victor Chisholm [[Email \(mailto:victor.chisholm%40mcgill.ca\)](mailto:victor.chisholm%40mcgill.ca)]

Undergraduate Research Officer

Office for Undergraduate Research in Science

Dawson Hall, Room 408-A

Tel.: 514-398-5964

Fax: 514-398-8102

Updated on *Wed, 2011-07-27 20:00*

(<http://www.mcgill.ca>)

[Home \(/science/\)](#)

You have already submitted this form. [View your previous submissions \(/science/node/2087/submissions\)](#).

396 Form

* indicates required fields.

Please scan this form before starting to fill it out, to see what is required.

INSTRUCTIONS - PROFESSORS: Fill out Sections A & B then submit this form online. (You will receive an email copy of the form. The Office for Undergraduate Research in Science will also post the project online at www.mcgill.ca/science/research/ours/396/listing (<https://www.mcgill.ca/science/research/ours/396/listing>), indicating whether the project is open for students to apply or taken.)

INSTRUCTIONS - STUDENTS: You may receive this form by email, or you may download it from www.mcgill.ca/science/research/ours/396/listing (<https://www.mcgill.ca/science/research/ours/396/listing>) after it has been posted. Either way, print this form. Complete and sign Section C on the hardcopy. Ask your supervisor to sign Section D. Take it to the department* corresponding to the course number in Section A; this may or may not be your own department. (* EXCEPTIONS: For NSCI 396 and COGS 396, please bring it to the Interdisciplinary Programs Adviser in Dawson Hall.) Do not register for a '396' course on Minerva until you receive departmental permission. Have a discussion with your supervisor about time/work expectations, keeping in mind that this is a 3-credit course (roughly, 10 hours per week for 12 weeks). Remember that a '396' course is an elective.

INSTRUCTIONS - DEPARTMENTS: After the unit chair/director/designate approves (or not) this project, notify student. If approved, please give student permission to register on Minerva, and send a copy of this form (with signatures) to the Office for Undergraduate Research in Science (*either* fax 514-398-8102, *or* internal mail to Dawson Hall 408-A, *or* PDF scan + email).

QUESTIONS OR FEEDBACK? Contact Victor Chisholm by email, or phone 514-398-5964.

* indicates a required field

SECTION A: SUPERVISOR INFORMATION

Supervisor's Name: *

Supervisor's Email: *

After you press submit, a copy of this form will be sent to (1) this email address, (2) the student email address, if entered below, and (3) the Office for Undergraduate Research in Science.

Supervisor's Phone:

Supervisor's Website:

Supervisor's department: *

Supervisor's department (if none of the above):

Normally the supervisor's department should match the course number's department.

Course number: *

SECTION B: PROJECT INFORMATION

Term: *

Project start date: *

You may change the actual start and end dates on the hard copy later, when you and the student print and sign the form. (FALL classes begin Tuesday, September 3, 2013. WINTER classes begin Monday, January 6, 2014. SUMMER: dates vary, check with the department offering the course.)

Project end date: *

The student must present his/her final report EITHER: by the last day of classes; OR, subject to the following conditions, no later than the last day of the final exam period. Conditions to end the project during the exam period: that submissions can be reviewed and grades submitted by the appropriate deadline, and also that the workload required to complete the project not exceed that normally required to prepare for final examinations.

(FALL classes end Tuesday, December 3, 2013. WINTER classes end Friday, April 11, 2014. SUMMER: dates vary, check with the department offering the course.)

Project title: *

10 words or less suggested

Project description (50-100 words suggested): *

This should be appropriate for a 3-credit course; approximately 120 hours.

Prerequisite: *

The standard prerequisite for '396' courses is "1 term completed at McGill + CGPA of 3.0 or higher; or permission of instructor."

Grading scheme (The final report must be worth at least 50% of final grade): *

FOR HGEN 396 PLEASE USE: "Final grade shall be based on an evaluation of laboratory (or equivalent) performance (40%), a final written report (50%), and an oral presentation (10%) by the supervisor. Details of the evaluation scheme will be provided by HGEN to supervisors and applicants." FOR MIMM 396/397, PLEASE USE: "Final grade shall be based on laboratory performance as evaluated by the research supervisor (50%) and the final written research report (minimum 10 pages) graded by the supervisor and the course coordinator or the coordinator's delegate (50%)."

Other project information:

OPTIONAL. The professor may use this field to indicate additional information to the applicant. For example: "This project involves fieldwork at ..."; "Applicants should read book/paper/website before applying."; "The best way to reach me is..."; etc.

Project status: *

- ☐ This project is open to applicant.
- ☐ This project is taken. The professor has no more '396' projects this term.
- ☐ This project is taken; however students may contact the professor to discuss other possible '396' projects this term.

How students can apply / Next steps: *

- ☐ For BIOL: After all parts of this application form are completed, and the hard copy is signed by the professor and the student, bring this application form and your unofficial transcript to Susan Gabe (Stewart Biology W3/25B) or Nancy Nelson (W3/25) during office hours.
- ☐ For HGEN: After all of the parts of this application forms are completed and the hard copy is signed by the professor and the student, bring the application form and a copy of your unofficial transcript to the Department of Human Genetics (to the attention of Dr. Patricia N. Tonin, Stewart Biology Building N5.13) during office hours.
- ☐ For MIMM: After all parts of this application form are completed, and the hard copy is signed by the professor and the student, bring this application form and your unofficial transcript to Prof. Gregory Marczynski during office hours, who will review/approve as the course coordinator for MIMM 396 (Microbiology) or MIMM 397 (Immunology).
- ☐ Bring a printed copy of this application form and your advising transcript to me during office hours.
- ☐ N/A; this project is filled.
- ☐ Other

If this is for HGEN 396, BIOL 396, MIMM 396, or MIMM 397, please choose the department-specific instructions.

If other, please specify:

Ethics, safety, and training: Supervisors are responsible for the ethics and safety compliance of undergraduate students. This project involves: *

☐ Animal subjects

☐ Human subjects

☐ Biohazardous substances

☐ Radioactive materials

☐ Handling chemicals

☐ Using lasers

☐ None of the above (NEITHER animal subjects, nor human subjects, nor biohazardous substances, nor radioactive materials, nor handling chemicals, nor using lasers)

SECTION C: STUDENT INFORMATION

Do not complete this section unless/until the student is identified.

Student's Name:

All of Section C can be filled out later on the hardcopy.

Student's McGill ID:

Student's Email (first.last@mail.mcgill.ca):

After you press submit, a copy of this form will be sent to (1) the supervisor's email address entered above, (2) the student email address, if entered here, and (3) the Office for Undergraduate Research in Science.

Student's Phone:

Student's Program:

For example: B.Sc. Maj. Chem. Min. Biol.

Student's Level (U0 / U1 / U2 / U3):

Student's signature - I certify that this course is with a different supervisor and on a different topic than any previous '396' course I have taken. I have not applied for another '396' course in this term:

Sign on the printed hard-copy.

SECTION D: APPROVALS.

Do not complete this section unless/until the student is identified.

Supervisor's signature - I give my permission for the student identified above to register for this project under my

supervision:

Please DO NOT enter anything online in this signature field. Please DO SIGN on the hard copy you will print later.

Date:

Unit chair/director/designate:

Unit chair/director/designate's name:

Unit chair/director/designate's signature - I certify that this project conforms to departmental requirements for 396 courses:

Please DO NOT enter anything online in this signature field.

Date:

Submitted by:

Email of authenticated user. THIS FIELD IS NON-EDITABLE.

[Save Draft](#) [Submit form](#)