

New Course

Proposal Reference : 4018
 Number
 PRN Alias : 11-12#974
 Version No : 5
 Submitted By : Ms Nancy Nelson
 Edited By : Ms Josie
 D'Amico

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New Data					
Program Affected?	Y				
Program Change Form Submitted?	N (Simple Change) - Please add to the "Other Suggested Courses" list in the Biology Concentrations, under the "Molecular Genetics and Development Concentration." Additionally, please add this course to the Complementary Courses list for Major in Anatomy & Cell Biology, under "12 credits of biologically oriented courses (BOC) selected from," to the Honours in Anatomy & Cell Biology, under "3 credits of biologically oriented courses (BOC) selected from," and to the Major in Physiology, under "Upper Level Science (ULS) Courses."				
Subject/Course/Term	BIOL 546 one term				
Credit Weight or CEU's	3 credits				
Course Activities	<table border="1"> <thead> <tr> <th>Schedule Type</th> <th>Hours per week</th> </tr> </thead> <tbody> <tr> <td>MW - Seminar</td> <td>3</td> </tr> </tbody> </table>	Schedule Type	Hours per week	MW - Seminar	3
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MW - Seminar	3				
Total Hours per Week : 3 Total Number of Weeks : 13					
Course Title	<table border="1"> <tbody> <tr> <td>Official Course Title :</td> <td>Genetics of Model Systems</td> </tr> <tr> <td>Course Title in Calendar :</td> <td>Genetics of Model Systems</td> </tr> </tbody> </table>	Official Course Title :	Genetics of Model Systems	Course Title in Calendar :	Genetics of Model Systems
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Course Title in Calendar :	Genetics of Model Systems				
Rationale	The genetics and molecular genetics of model systems is one of the principal approaches used worldwide by researchers in the life sciences and is the main specialty of the researchers in the Cell and Molecular group of the Biology Department. However, owing to the number of different systems and the increasing complexity and sophistication of the methods and concepts used in molecular genetics, this subject is insufficiently covered in lower level courses such as 202, 300, and 303. The new course will fill this gap. It also will help to broaden the horizon of graduate students that are already engaged in studies that take advantage of one particular model system.				
Responsible Instructor	Siegfried Hekimi				
Course Description	Topics in the genetics and molecular genetics of unicellular, plant, invertebrate and vertebrate models systems.				

Teaching Dept.	0286 : Biology
Administering Faculty/Unit	SC : Faculty of Science
Prerequisites	BIOL 202 and BIOL 300; BIOL 303 recommended Web Registration Blocked? : N
Corequisites	
Restrictions	
Supplementary Calendar Info	1. Fall course given every second year, alternating with BIOL 544; enrollment limited to 15 students
Additional Course Charges	
Campus	Downtown
Projected Enrollment	12
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	201209
File Attachments	No attachments have been saved yet.
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

								D'Amico on: Mar 7 2012
4								Approved by Department Meeting Edited by: Nancy Nelson on: Mar 6 2012
3								Approved by Department Meeting Edited by: Josie D'Amico on: Mar 2 2012
2		Approved Nancy Nelson Meeting Date: Feb 28 2012 Approval Date: Feb 29 2012 View Comments						Approved by Department Meeting Edited by: Nancy Nelson on: Feb 29 2012
1	Approved Frederic Guichard Meeting Date: Feb 28 2012 Approval Date: Feb 28 2012 View Comments							Approved by Departmental Curriculum Committee Created on: Feb 28 2012

Course description BIOL 546 proposed Feb 27/12

Instructor:

S. Hekimi W5/29 (514) 398 6440 siegfried.hekimi@mcgill.ca

Workload:

3 credits

Prerequisites:

BIOL 202, 300 or permission; BIOL 303 recommended

Content:

The course will provide an introduction to the genetics and molecular genetics of unicellular, plant, invertebrate and vertebrate model systems, including, among others, *E. coli*, yeast, *Arabidopsis*, *Caenorhabditis*, *Drosophila*, Zebrafish, and mice. We will examine the characteristics of each system, how the systems have been most successfully used (their advantages and disadvantages) and, using chosen topics, how findings with these systems are shaping our understanding of basic principles in the life sciences.

Readings:

Recent research articles and reviews. No textbook will be used.

Method:

Each new topic will be introduced by a lecture by the instructor or an invited lecturer specialized in the use of the particular model system or topic. The following classes will be devoted to student seminars and critical discussions of recent research articles.

Evaluation:

One long