

Revision for COMP 564

Proposal Reference Number : 12827
PRN Alias : 17-18#306
Version No : 1
Submitted By : Prof Jérôme Waldispühl

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Summary of Changes **Course Title, Course Description, Corequisites**

	Current Data	New Data								
Program Affected?		N								
Program Change Form Submitted?										
Subject/Course/Term	COMP 564 <ul style="list-style-type: none"> one term 									
Credit Weight or CEU's	3 credits.									
Course Activities	<ul style="list-style-type: none"> A - Lecture 									
Course Title	<table border="1"> <tr> <td>Course Title on Transcript</td> <td>Computational Gene Regulation</td> </tr> <tr> <td>Course Title on Calendar</td> <td>Computational Gene Regulation.</td> </tr> </table>	Course Title on Transcript	Computational Gene Regulation	Course Title on Calendar	Computational Gene Regulation.	<table border="1"> <tr> <td>Course Title on Transcript</td> <td>Advanced Computational Biology</td> </tr> <tr> <td>Course Title on Calendar</td> <td>Advanced Computational Biology Methods & Research</td> </tr> </table>	Course Title on Transcript	Advanced Computational Biology	Course Title on Calendar	Advanced Computational Biology Methods & Research
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Rationale		<p>This course was last offered over ten years ago and the previous instructor has left McGill. In the past two years, another instructor (Jerome Waldispuehl) has offered a Topics course (COMP 598) which covers some of the same material. However this Topics course has a broader scope and is designed to better complement the current version of COMP 462/561 Computational Biology Methods (and Research) which is a core course in the CS-Bio undergraduate and Bioinformatics graduate programs. The instructor is now ready to turn this Topics course into a formal course with its own name and course number. Rather than retiring COMP 564 and creating a new course, we would like to simply change the course title and description.</p>								
Responsible Instructor		Jérôme Waldispühl								
Course Description	<p>This course examines computational problems related to gene regulation at the mRNA and protein levels. With respect to mRNA expression, topics include microarray analysis, SNP detection, and the inference of genetic networks. With respect to protein expression, topics include peptide sequencing, peptide identification, and the interpretation of interaction maps.</p>	<p>Fundamental concepts and techniques in computational structural biology, system biology. Techniques include dynamic programming algorithms for RNA structure analysis, molecular dynamics and machine learning techniques for protein structure prediction, and graphical models for gene regulatory and protein-protein interaction</p>								

		networks analysis. Practical sessions with state-of-the-art software.
Teaching Dept.	0155 : Computer Science	
Administering Faculty/Unit	SC : Faculty of Science	
Prerequisites	Prerequisite: COMP 462.	
Corequisites		COMP 462 or COMP 561 Web Registration Blocked? : <input type="checkbox"/> N
Restrictions		
Supplementary Calendar Info	1.3 hours	
Additional Course Charges		
Campus		
Projected Enrollment		
Requires Resources Not Currently Available		
Explanation for Required Resources		
Consultation Reports Attached?		
Effective Term of Implementation		201809
File Attachments		<ul style="list-style-type: none"> COMP598.pdf <input type="button" value="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
1								Saved by user Created on: Oct 12 2017

Subject: Re: consulta on for COMP 564

From: "Johanna Neslehova, Prof." <johanna.neslehova@mcgill.ca>

Date: 10/19/2017 2:32 PM

To: Michael Langer <langer@cim.mcgill.ca>

CC: "David Alan Stephens, Prof." <david.stephens@mcgill.ca>, "Axel Hundemer, Dr." <axel.hundemer@mcgill.ca>

Dear Mike,

I've consulted with our Chair, and there are no objections or comments on our side.

Good luck with the proposed changes, our students will certainly benefit from the new course.

Best wishes,

Johanna

On Oct 19, 2017, at 12:46 PM, Michael Langer <langer@cim.mcgill.ca> wrote:

Hello Michael, Johanna, Huy,

I am writing to let you know that the School of Computer Science is proposing a new 500 level course. We need to consult with your department(s) about it.

The course will be called "Advanced Computational Biology Methods and Research". We would like to reuse the course number COMP 564 which is currently for the course "Computational Gene Regulation". (We have not offered that course in ten years.)

For the consultation, please note the following:

- Department Biology: The new course is very relevant for the Joint Major and Honours CS/Bio programs. Those programs do not need to be changed to accommodate this new course, since the course would be Complementary and thus not explicitly listed in those programs. But we would like you to be aware of the new course for advising purposes, and to let us know if you have any comments or objections.
- Dept. of Anatomy and Cell Biology: COMP 564 Computational Gene Regulation is currently listed in your MSc program in Cell Biology.
- Dept. Mathematics and Statistics: COMP 564 Computational Gene Regulation is currently listed in your Majors and Honours Stats & CS programs.

In both the latter two cases, I believe you would not need to change your program, since the new course would have a different title and would be considered a different course. But eventually you may want to change the program to include the new course or drop the old one.

Could you please read the proposal form which I am attaching, and ***reply to this email to let me know if you have any comments or objections*** ? I have also included a syllabus if you are interested.

Thank you,

Mike Langer
School of Computer Science

| <COMP 564 Course Outline.pdf><COMP 564 proposal form.pdf> |

Subject: Re: consulta on for COMP 564
From: "Khanh Huy Bui, Dr." <huy.bui@mcgill.ca>
Date: 10/27/2017 2:42 PM
To: "Michael Hendricks, Dr." <michael.hendricks@mcgill.ca>, Michael Langer <langer@cim.mcgill.ca>

Dear Mike,
I thought I replied to you already. Sorry about that.

Our curriculum commi ee raised no issue with the course. I think it is a great complimentary course for our department and everybody in the curriculum commi ee agreed.

Best,
Huy

From: Michael Hendricks, Dr.
Sent: Friday, October 27, 2017 2:09:23 PM
To: Michael Langer; Khanh Huy Bui, Dr.
Subject: RE: consulta on for COMP 564

Hi Mike,

Our curriculum commi ee raised no issues with the course and no issues have arisen from faculty given a chance to consult. There will be a motion at our department assembly next week to accept it as a complementary course. I'll confirm after the meeting.

Best,
Michael

-----Original Message-----

From: Michael Langer [<mailto:langer@cim.mcgill.ca>]
Sent: October 27, 2017 2:06 PM
To: Michael Hendricks, Dr. <michael.hendricks@mcgill.ca>; Khanh Huy Bui, Dr. <huy.bui@mcgill.ca>
Subject: Re: consulta on for COMP 564

Hi Michael, Huy,

Just a friendly reminder ... Thanks.

Mike Langer

On 10/19/2017 12:46 PM, Michael Langer wrote:

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> Thank you,
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> Mike Langer
> School of Computer Science
>

Subject: RE: consulta on for COMP 564

From: "Michael Hendricks, Dr." <michael.hendricks@mcgill.ca>

Date: 10/27/2017 2:09 PM

To: Michael Langer <langer@cim.mcgill.ca>, "Khanh Huy Bui, Dr." <huy.bui@mcgill.ca>

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