

New Course

Proposal Reference : 3728
 Number
 PRN Alias : 11-12#684
 Version No : 8
 Submitted By : Ms Kathryn Lynn Livick
 Edited By : Ms Josie D'Amico

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New Data							
Program Affected?	Y						
Program Change Form Submitted?	N (Simple Change) - U0 Program: Course should be added to the "List of approved U0 courses".						
Subject/Course/Term	MATH 134 <ul style="list-style-type: none"> • 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>A - Lecture</td> <td>3</td> </tr> <tr> <td>T - Tutorial</td> <td>1</td> </tr> </tbody> </table>	Schedule Type	Hours per week	A - Lecture	3	T - Tutorial	1
	Schedule Type	Hours per week					
	A - Lecture	3					
	T - Tutorial	1					
Total Hours per Week : 4							
Total Number of Weeks : 13							
Course Title	<table border="1"> <tr> <td>Official Course Title :</td> <td>Enriched Linear Alg & Geo</td> </tr> <tr> <td>Course Title in Calendar :</td> <td>Enriched Linear Algebra and Geometry</td> </tr> </table>	Official Course Title :	Enriched Linear Alg & Geo	Course Title in Calendar :	Enriched Linear Algebra and Geometry		
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Course Title in Calendar :	Enriched Linear Algebra and Geometry						
Rationale	MATH 133 Linear Algebra and Geometry's enrolment has grown substantially over the last couple of years to about 900 students; we decided a while ago to reduce the amount of material covered in MATH 133 since many students had trouble coping with it - to the detriment of students who need a strong background in linear algebra for their programs. MATH 134 is basically what MATH 133 used to be plus an introduction to complex numbers, and is intended for (future) students in mathematics and physical sciences. Either MATH 133 or MATH 134 will qualify students for a second level linear algebra course but students taking MATH 134 will know more sooner.						
Responsible Instructor							
Course Description	Complex numbers. Systems of linear equations, matrix algebra, determinants. Subspaces of euclidean space, linear dependence and independence, bases. Bilinear and quadratic forms. The Gram-Schmidt process. Eigenvalues and eigenvectors, diagonalization. Orthogonal diagonalization of symmetric matrices. This course is intended for students in mathematics and physical sciences.						
Teaching Dept.	0290 : Mathematics and Statistics						
	SC : Faculty of Science						

Administering Faculty/Unit	
Prerequisites	
Corequisites	
Restrictions	Not open to students who are taking or have taken MATH 133.
Supplementary Calendar Info	
Additional Course Charges	
Campus	Downtown
Projected Enrollment	175
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
8								Approved by Department Meeting Edited by: Josie D'Amico on: Feb 8 2012

7								Approved by Department Meeting Edited by: Josie D'Amico on: Feb 3 2012
6								Approved by Department Meeting Edited by: Josie D'Amico on: Feb 1 2012
5								Approved by Department Meeting Edited by: Josie D'Amico on: Feb 1 2012
4								Approved by Department Meeting Edited by: Josie D'Amico on: Feb 1 2012
3								Approved by Department Meeting Edited by: Axel W Hundemer on: Jan 17 2012
2		Approved Axel W Hundemer Meeting Date: Nov 28 2011 Approval Date: Jan 12 2012 View Comments						Approved by Department Meeting Edited by: Axel W Hundemer on: Jan 12 2012
1								Submitted to Departmental Curriculum Committee for approval Created on: Jan 12 2012

McGill University
Department of Mathematics and Statistics
MATH 134 Enriched Linear Algebra and Geometry
Fall 2012

Instructor: TBA

Textbook: David Poole, Linear Algebra: A Modern Introduction (3rd edition), Brooks Cole.

Syllabus: This course is intended for future students in mathematics and physical sciences. It will cover more material than MATH 133 and will be taught at a higher level.

1. Complex numbers
2. Systems of linear equations
3. Matrix algebra
4. Linear transformations
5. Subspaces of euclidean space
6. Linear dependence and independence, bases
7. Determinants
8. Bilinear and quadratic forms
9. The Gram-Schmidt process
10. Eigenvalues and eigenvectors
11. Diagonalization
12. Orthogonal diagonalization of symmetric matrices

Assessment: Your course grade will be determined by the following formula:

15% Assignments + 20% Midterm + 65% Final Exam or 15% Assignments + 85% Final Exam.

Note that there is no 100% Final Exam options.

Academic Integrity: McGill University values academic integrity. Therefore all students must understand the meaning and consequences of cheating, plagiarism and other academic offences under the Code of Student Conduct and Disciplinary Procedures (see <http://www.mcgill.ca/integrity/> for more information).

Language Policy: In accord with McGill University's Charter of Students' Rights, students in this course have the right to submit in English or in French any written work that is to be graded.

Extraordinary Circumstances: In the event of extraordinary circumstances beyond the University's control, the content and/or evaluation scheme in this course is subject to change.