

Course Consolidation for PHYS 225 (Retired Course) and PHYS 224 (Retained Course)

Proposal Reference Number : 1907
 PRN Alias : 09-10#860
 Version No : 2
 Submitted By : Dr Guy Moore

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Summary of Changes **Course Title, Course Description, Restrictions, Supplementary Calendar Info**

	Course to be Retired	Course to be Retained	New Data												
Program Affected?			Y												
Program Change Form Submitted?			N (Simple Change) - PHYS 225 will be removed from the List of Complementary Courses for the BSc Minor in Physics and the BA&Sc Major Concentration in Physics. There are three program changes (Minor in Musical Applications of Technology, Minor in Musical Science and Technology, Special Prerequisite Courses for M.Mus. in Sound Recording) in the Faculty of Music, which have been discussed extensively with that Faculty and will be addressed by them. Consultation reports from Music are attached.												
Subject/Course/Term	PHYS 225 <ul style="list-style-type: none"> one term 	PHYS 224 <ul style="list-style-type: none"> one term 	PHYS 224 <ul style="list-style-type: none"> one term 												
Credit Weight or CEU's	3 credits.	3 credits.	3 credits												
Course Activities	<ul style="list-style-type: none"> A - Lecture 	<ul style="list-style-type: none"> A - Lecture 	<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> </tbody> </table> Total Hours per Week : 3 Total Number of Weeks : 13	Schedule Type	Hours Per Week	A - Lecture	3								
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Course Title	<table border="1"> <tr> <td>Course Title on Transcript</td> <td>Musical Acoustics</td> </tr> <tr> <td>Course Title on Calendar</td> <td>Musical Acoustics.</td> </tr> </table>	Course Title on Transcript	Musical Acoustics	Course Title on Calendar	Musical Acoustics.	<table border="1"> <tr> <td>Course Title on Transcript</td> <td>Physics&Psychophysics of Music</td> </tr> <tr> <td>Course Title on Calendar</td> <td>Physics and Psychophysics of Music.</td> </tr> </table>	Course Title on Transcript	Physics&Psychophysics of Music	Course Title on Calendar	Physics and Psychophysics of Music.	<table border="1"> <tr> <td>Course Title on Transcript</td> <td>Physics of Music</td> </tr> <tr> <td>Course Title on Calendar</td> <td>Physics of Music.</td> </tr> </table>	Course Title on Transcript	Physics of Music	Course Title on Calendar	Physics of Music.
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Rationale			Currently PHYS 224 and 225 overlap in 1/3 to 1/2 of their course material, which is necessary because neither is a prerequisite for the other. However many students												

			(around half the enrollment of PHYS 225) take both courses, so this is a problem for them. Further, PHYS 224 currently contains much material on the anatomy and physiology of the ear and the physiology and psychology of hearing. This is somewhat outside the expertise of the Physics department, and Music has recently added a course, MUMT 250, which covers this material in greater depth. This material is also well covered in PSYC 501. By merging the courses we can eliminate this material and the duplication between the courses. Music students who previously took both courses can now cover the same ground with PHYS 224 and MUMT 250.		
Responsible Instructor					
Course Description	Physical acoustics with applications to music. Resonators and radiators, acoustic impedance. Acoustic properties of strings, bars, membranes, pipes and horns. Application to selected musical instruments. Direction characteristics of sound sources. Room acoustics.	An introduction to physics and psychophysics of music with demonstrations of the relevant phenomena and the theories explaining them. Pitch, loudness and timbre in the context of the physics properties of the human ear. The basic physics of music production including modes of oscillation of mechanical systems, resonance, feedback, transmission and reflection of sound. The human voice. Modern methods of sound production using electrical analogue devices and digital computers. Room reverberation and acoustics.	An introduction to the physics of music. Properties of sound and their perception as pitch, loudness, and timbre. Dissonance, consonance, and musical intervals and tuning. Physics of sound propagation and reflection. Resonance. Acoustic properties of pipes, strings, bars, and membranes, and sound production in wind, string, and percussion instruments. The human voice. Room reverberation and acoustics. Directional characteristics of sound sources.		
Teaching Dept.	0293 : Physics	0293 : Physics	0293 : Physics		
Administering Faculty/Unit	SC : Faculty of Science	SC : Faculty of Science	SC : Faculty of Science		
Prerequisites	Prerequisites: CEGEP Physics or PHYS 101 or PHYS 131 or both MATH 112 and PHYS 224.	Prerequisite: none	Prerequisite: none <table border="1" data-bbox="1138 1696 1511 1745"><tr><td>Web Registration Blocked? :</td><td>N</td></tr></table>	Web Registration Blocked? :	N
Web Registration Blocked? :	N				
Corequisites	Prerequisites: CEGEP Physics or PHYS 101 or PHYS 131 or both MATH 112 and PHYS 224.	Prerequisite: none			

Restrictions			Not open to students who have taken PHYS 225.
Supplementary Calendar Info	<ol style="list-style-type: none"> 1. Winter 2. 3 hours lectures 3. Designed for students in music who have interests in sound recording and reproduction and also suitable for students in science with an interest in music 	<ol style="list-style-type: none"> 1. Fall 2. 3 hours lectures 3. Designed for students in the Faculty of Music but suitable for students with an interest in music, and how it is perceived 	<ol style="list-style-type: none"> 1. Fall 2. 3 hours lectures 3. Designed for students in the Faculty of Music but suitable for students with an interest in music and its physical basis.
Additional Course Charges			
Campus			Downtown
Projected Enrollment			60
Requires Resources Not Currently Available			N
Explanation for Required Resources			
Consultation Reports Attached?			<p>Y</p> <ul style="list-style-type: none"> • Consult_ph224signed.doc View • Consult_ph224signed_2.doc View • Consult_ph224signed_3.pdf View
Effective Term of Implementation			201009
File Attachments			<ul style="list-style-type: none"> • phys224_proposal.pdf View
To be completed by the Faculty			
For Continuing Education 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

2								Approved by Departmental Chair Edited by: Josie D'Amico on: Apr 28 2010
1			Approved Charles Gale Meeting Date: Apr 21 2010 Approval Date: Apr 22 2010 View Comments					Approved by Departmental Chair Created on: Apr 21 2010