Office of the Registrar
FORM 40 REV. 2/99

PURDUE UNIVERSITY
REQUEST FOR ADDITION, DELETION, OR REVISION OF A COURSE

SCHOOL DOCUMENT NO. 31-01
GRADUATE COUNCIL DOCUMENT NO. 05-2e

DEPARTMENT Biomedical Engineering DATE SUBMITTED 12/9/04 DATE EFFECTIVE ~~9/1/05~~ Spring 2006

INSTRUCTIONS: Please check the items below which describe the purpose of this request.

PURPOSE

	1. Deletion of a course		8. Change in semesters offered
✓	2. New course with supporting documents		9. Change in course credit/type
	3. Add existing course offered at another campus		10. Change in course attributes
	4. Change in course number at same level		11. Change in instructional hours
	5. Downgrading of course level		12. Change in prerequisites
	6. Upgrading of course level		13. Change in description of course content
	7. Change in course title		14. Transfer of course from one dept. to another

EXISTING:
Subject Abbreviation ~~BME~~
Course Number ~~658~~

PROPOSED:
Subject Abbreviation BME
Course Number ~~695~~ 658

Proposed Title Cell And Tissue Culture: Techniques And Application Module
Variable Title Yes ☐ No ✓

Abbreviated Title Cell Cult Tech App Mod
Abbreviated title will be entered by the Office of the Registrar if omitted. (22 CHARACTERS ONLY)

SEMESTERS OFFERED
Check All That Apply.

Summer	Fall	Ag Winter	Spring
☐	☐	☐	✓

CROSS LISTED COURSES
BMS 635

CREDIT TYPE
1. Fixed Credit: Cr. Hrs. 2.0
2. Variable Credit Range: Minimum Cr. Hrs (Check One) To ☐ Or ☐ Maximum Cr. Hrs.
3. Equivalent Credit: Yes ☐ No X
4. Thesis Credit: Yes ☐ No X

COURSE ATTRIBUTES: Check All That Apply.

1. Pass/Not Pass Only	
2. Repeatable for Credit	
3. Available for Credit by Examination	
4. Designator Required	
5. Special Fees	
6. Approval Required for Enrollment	✓
Department	
Instructor	✓

Instructional Type	Class Hours	FTE	Instructional Type	Class Hours	FTE	Instructional Type	Class Hours	FTE
Primary	~~2.0~~ 1		Auto-tutorial			Thesis		
Secondary			Ind. Study			Observation		
Laboratory	4		Clinic			Matls Based		
Lab. Prep.			Experiential					

CAMPUS(ES) INVOLVED

Calumet	
Fort Wayne	
Indianapolis	
North Central	
West Lafayette	✓
Off Campus	

COURSE DESCRIPTION (PREREQUISITES INCLUDED):

~~Prerequisite: Permission of the Instructor Required~~ Admission by consent of instructor.
This intensive laboratory module is designed to provide students from various disciplines (e.g., life science and engineering) with practical, hands-on experiences in the area of cell and tissue culture. Students are taught the principles of culturing cells and tissues in vitro and have the opportunity to apply state-of-the-art culturing techniques to both 2-dimensional and 3-dimensional culture systems. Specific methodologies focus on both qualitative and quantitative analysis of fundamental cell behavior, including proliferation, differentiation, migration, and adhesion.

Calumet Undergrad Curriculum Committee	Date	Calumet Department Head	Date	Calumet School Dean	Date
Fort Wayne Department Head	Date	Fort Wayne School Dean	Date	Fort Wayne Chancellor	Date
Indianapolis Department Head	Date	Indianapolis School Dean	Date	Robert E Montgomery Undergrad Curriculum Committee	12/13/04 Date
~~North Central~~ Department Head	12/21/04 Date	North Central Vice Chancellor	Date	APPROVED 2/17/05 Date Approved by Graduate Council	
West Lafayette Department Head	12/10/04 Date	West Lafayette School Dean	12/10/04 Date	Marilyn D. Heist Graduate Council Secretary	5/9/05 Date
Andrea J Allen Graduate Area Committee Convener	2/17/05 Date	John F. Oh Vice Graduate Dean	12/22/04 Date	~~West Lafayette~~ Registrar	Debra K. Sharts Date

OFFICE OF THE REGISTRAR

MAY 18 2005

Engineering Faculty Document #31-01
February 27, 2002

To: Faculty of the Schools of Engineering

From: Department of Biomedical Engineering

Subject: New Graduate Level Course

The Department of Biomedical Engineering has approved the following new course. Approval of the Faculty of the Schools of Engineering is requested.

BME 658/ BMS 635 Cell and Tissue Culture: Techniques and Application Module

A. Course Description

Sem. 2, Class 3, Lab 8, cr. 2 (5 wks)
Prerequisite: Permission of the Instructor Required

Principles and practices of culturing cells and tissues within 2D and 3D systems in vitro. Qualitative and quantitative analysis of fundamental cell behavior including proliferation, differentiation, migration, and adhesion.

B. Reason

This course has been offered three times on an experimental basis and has received a high level of student interest. This course provides students with the opportunity to learn the biophysics and engineering basis of state-of-the-art bioinstrumentation, such as flow cytometry, that is used for both qualitative and quantitative analyses of cellular and physiological systems. At the same time students gain an understanding of and practical experience with the fundamental cellular properties (phenotype and function) and how they can be exploited for such analyses in both clinical and research settings.

APPROVED FOR THE FACULTY
OF THE SCHOOLS OF ENGINEERING
BY THE COMMITTEE ON
FACULTY RELATIONS

CFR Minutes #962

Date 4/26/02

Chairman CFR C.D. Sutton

George R. Wodicka
Head and Professor
Department of Biomedical Engineering

EFD 51-01
BME 658

Supporting Documentation:

Instructor: Sherry L. Voytik-Harbin

Technical Assistant: Beverly Waisner

Course Objectives:

This intensive laboratory module is designed to provide students from various disciplines (e.g., life science and engineering) with practical, hands-on experiences in the area of cell and tissue culture. Students will be taught the principles of culturing cells and tissues *in vitro* and will have the opportunity to apply state-of-the-art culturing techniques to both 2-dimensional and 3-dimensional culture systems. Specific methodologies will focus on both qualitative and quantitative analysis of fundamental cell behavior including proliferation, differentiation, migration, and adhesion.

Course Content:

Week 1: Introduction to Cell and Tissue Culture
Week 2: Cell Cycle and Growth Curve
Week 3: Cell Proliferation
Week 4: 3D Cell Culture
Week 5: Cell Differentiation