Office of the Registrar
FORM 40 REV. 11/09

PURDUE UNIVERSITY
REQUEST FOR ADDITION, EXPIRATION,
OR REVISION OF AN UNDERGRADUATE COURSE
(10000-40000 LEVEL)

Print Form

EFD 6-10

DEPARTMENT Biomedical Engineering

EFFECTIVE SESSION Fall 2011

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

- [ ] 1. New course with supporting documents
- [ ] 2. Add existing course offered at another campus
- [ ] 3. Expiration of a course
- [ ] 4. Change in course number
- [ ] 5. Change in course title
- [ ] 6. Change in course credit/type
- [ ] 7. Change in course attributes (department head signature only)
- [ ] 8. Change in instructional hours
- [ ] 9. Change in course description
- [x] 10. Change in course requisites
- [ ] 11. Change in semesters offered (department head signature only)
- [ ] 12. Transfer from one department to another

PROPOSED:	EXISTING:
Subject Abbreviation	Subject Abbreviation BME
Course Number	Course Number 20100
Long Title Biomolecules: Structure, Function, and Engineering Applications	
Short Title Biomol: Strct, Funct, Apl	

Abbreviated title will be entered by the Office of the Registrar if omitted. (30 CHARACTERS ONLY)

TERMS OFFERED
Check All That Apply:
[ ] Summer [x] Fall [ ] Spring

CAMPUS(ES) INVOLVED
[ ] Calumet [ ] N. Central
[ ] Cont Ed [ ] Tech Statewide
[ ] Ft. Wayne [x] W. Lafayette
[ ] Indianapolis

CREDIT TYPE
1. Fixed Credit: Cr. Hrs. 3
2. Variable Credit Range: Minimum Cr. Hrs
(Check One) To [ ] Or [ ]
Maximum Cr. Hrs.
3. Equivalent Credit: Yes [ ] No [ ]

COURSE ATTRIBUTES: Check All That Apply
1. Pass/Not Pass Only [ ]
2. Satisfactory/Unsatisfactory Only [ ]
3. Repeatable [ ]
Maximum Repeatable Credit: [ ]
4. Credit by Examination [ ]
5. Special Fees [ ]
6. Registration Approval Type
Department [ ] Instructor [ ]
7. Variable Title [ ]
8. Honors [ ]
9. Full Time Privilege [ ]
10. Off Campus Experience [ ]

ScheduleType	Minutes Per Mtg	Meetings Per Week	Weeks Offered	% of Credit Allocated
Lecture	75	2	16	
Recitation				
Presentation				
Laboratory				
Lab Prep				
Studio				
Distance				
Clinic				
Experiential				
Research				
Ind. Study				
Pract/Observ				

Cross-Listed Courses

COURSE DESCRIPTION (INCLUDE REQUISITES/RESTRICTIONS):
Prerequisites: CHM 11600 or CHM 12400 or CHM 13600 and MA 17300 or MA 16200 or MA 16600 or MA 18100 with a minimum grade of C- in all prerequisites. Corequisite: BME 20500. Concurrent Prerequisite: BIOL 23000. Classes of molecules (biomolecules) such as sugars, lipids, proteins, and nucleic acids that form the cellular components of living organisms. Explores the chemistry behind the structure and function of these important classes of biological molecules. Hydrogen-bonding, hydrophobic forces, electrostatic interactions along with other weak interactions discussed with reference to their importance in biomolecular systems in an engineering context

*COURSE LEARNING OUTCOMES:
1. Identify biomolecules and explain their structure and function. 2. Describe the basic chemistry of biomolecules. 3. Recognize the connection between structure, function, and properties of biomolecules. 4. Explain how biomolecules may be engineered and used in living systems.

	Date		Date
Calumet Department Head		Calumet School Dean	
Fort Wayne Department Head		Fort Wayne School Dean	
Indianapolis Department Head		Indianapolis School Dean	
North Central Department Head		North Central Chancellor	
West Lafayette Department Head	George R. Wodicka 5/13/10	West Lafayette College/School Dean	5/24/2010
West Lafayette Registrar	7/29/10		

OFFICE OF THE REGISTRAR

7/29/10

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Fort Wayne Department Head	Date	Fort Wayne School Dean	Date
Indianapolis Department Head	Date	Indianapolis School Dean	Date
North Central Department Head	Date	North Central Chancellor	Date
West Lafayette Department Head: George R. Wodicka	5/13/10	West Lafayette College/School Dean	5/24/2010
West Lafayette Registrar	Date		

OFFICE OF THE REGISTRAR

TO: The Faculty of the College of Engineering

FROM: The Faculty of the School of Biomedical Engineering

RE: Changes to existing Undergraduate Course, BME 20100 Biomolecules Structure, Function, and Engineering Applications, requisites

The Faculty of the School of Biomedical Engineering has approved the following changes to an existing course. This action is now submitted to the Engineering Faculty with a recommendation for approval.

From: BME 20100 **Biomolecules: Structure, Function, and Engineering Applications**
Term offered: Fall, Lecture 3, Cr. 3
Prerequisites: CHM 11600, CS 15600, ENGR 10600, and MA 16600 or equivalencies
Co-requisites: BIOL 29500E, BME 20500

Description: Classes of molecules (biomolecules) such as sugars, lipids, proteins, and nucleic acids that form the cellular components of living organisms. Explores the chemistry behind the structure and function of these important classes of biological molecules. Hydrogen-bonding, hydrophobic forces, electrostatic interactions along with other weak interactions discussed with reference to their importance in biomolecular systems in an engineering context.

To: BME 20100 **Biomolecules: Structure, Function, and Engineering Applications**
Term offered: Fall, Lecture 3, Cr. 3
Prerequisites: CHM 11600 or CHM 12400 or CHM 13600 and MA 17300 or MA 16200 or MA 16600 or MA 18100 with a minimum grade of C- in all prerequisites.
Co-requisite: BME 20500
Concurrent Prerequisite: BIOL 23000

Description: Classes of molecules (biomolecules) such as sugars, lipids, proteins, and nucleic acids that form the cellular components of living organisms. Explores the chemistry behind the structure and function of these important classes of biological molecules. Hydrogen-bonding, hydrophobic forces,

APPROVED FOR THE FACULTY
OF THE SCHOOLS OF ENGINEERING
BY THE ENGINEERING
CURRICULUM COMMITTEE

ECC Minutes #26

Date 5/13/10

Chairman ECC R. Cipra

electrostatic interactions along with other weak interactions discussed with reference to their importance in biomolecular systems in an engineering context.

Reason: The prerequisites have been revised to specify equivalencies. A minimum grade requirement in key prerequisite courses is necessary to ensure an adequate understanding of prerequisite subjects when proceeding to this more advanced topic that builds upon and integrates the prior knowledge. The CS and ENGR prerequisites have been removed for simplicity since only qualified undergraduates can register for the BME co-requisite. The change in the Biology co-requisite reflects its new permanent number.

George R. Wodicka

George R. Wodicka, Professor and Head
Weldon School of Biomedical Engineering