Office of the Registrar
FORM 40 REV. 12/03

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

DEPARTMENT Biomedical Engineering EFFECTIVE SESSION 2/04, EFD22-03

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
- [ ] 8. Change in instructional hours
- [ ] 9. Change in course description
- [ ] 10. Change in course requisites
- [ ] 11. Change in semesters offered

PROPOSED:
Subject Abbreviation BME
Course Number 304

EXISTING:
Subject Abbreviation
Course Number

Long Title Bioheat and Mass Transfer

Short Title
Abbreviated title will be entered by the Office of the Registrar if omitted. (22 CHARACTERS ONLY)

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

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

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 [ ]
4. Thesis 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. Designator Required
6. Special Fees

7. Registration Approval Type
Department [✓] Instructor
8. Variable Title
9. Remedial
10. Honors
11. Full Time Privilege
12. Off Campus Experience

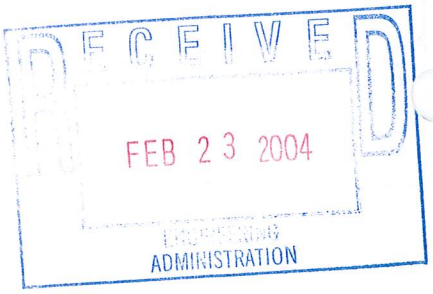
Instructional Type	Minutes Per Mtg	Meetings Per Week	Weeks Offered	% of Credit Allocated	Delivery Method (Asyn. Or Syn.)	Delivery Medium(Audio, Internet, Live, Text-Based, Video)
Lecture	50	3	16			Live
Recitation						
Presentation						
Laboratory						
Lab Prep						
Studio						
Distance						
Clinic						
Experiential						
Research						
Ind. Study						
Pract/Observ						

COURSE DESCRIPTION (INCLUDE REQUISITES): Sem. 2. Class 3, cr. 3. , Prerequisite: ME 309 or equivalent

Fundamentals of heat and mass transport concepts in the context of biomedical applications. Heat transfer concepts include: steady- and unsteady-state thermal conductivity, convection, radiation, and combined mechanisms of heat transfer. Mass transport concepts include: steady and unsteady-state molecular mass transfer, diffusion, interphase mass transport, and convective mass transport. Integrated biological topics include fluid and mass transport in the body, pathological conditions (such as fever and arteriosclerosis), forced convection (i.e., dialysis), radiation exposure to cells/tissues, unsteady-state molecular diffusion such as in drug delivery mechanisms.

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	Undergrad Curriculum Committee Robert Montgomery	2/10/04 Date
North Central Department Head	Date	North Central Chancellor	Date	Date Approved by Graduate Council	
Jack R. Wodicka	2/6/04	Lesa H. Jarvis	2/9/04		
West Lafayette Department Head	Date	West Lafayette School Dean	Date	Graduate Council Secretary Deb Sheets	2/13/04 Date
Graduate Area Committee Convener	Date	Graduate Dean	Date	West Lafayette Registrar	Date

OFFICE OF THE REGISTRAR


RECEIVED
FEB 23 2004
ADMINISTRATION