**PURDUE UNIVERSITY**

**REQUEST FOR ADDITION, EXPIRATION, OR REVISION OF A COURSE**

### DEPARTMENT: MECHANICAL ENGINEERING

**EFFECTIVE SESSION**: Spring 2005

**TERMS OFFERED**: Spring [ ]

**CAMPUS(ES) INVOLVED**:
- Calumet
- Fort Wayne
- Indianapolis
- N. Central
- W. Lafayette
- Tech Statewide

### 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:

<table>
<thead>
<tr>
<th>Subject Abbreviation</th>
<th>ME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Number</td>
<td>517</td>
</tr>
<tr>
<td>Long Title</td>
<td>Micro/Nanoscale Physical Processes</td>
</tr>
<tr>
<td>Short Title</td>
<td>Abbreviated title will be entered by the Office of the Registrar if omitted. (22 CHARACTERS ONLY)</td>
</tr>
</tbody>
</table>

### CREDIT TYPE:

1. Fixed Credit: Cr. Hrs. 3
2. Variable Credit Range: Minimum Cr. Hrs. (Check One) 3
3. Equivalent Credit: Yes [ ] No [X]
4. Thesis Credit: Yes [ ] No [X]

### COURSE ATTRIBUTES: Check All That Apply:

1. Pass/Not Pass Only
2. Satisfactory/Unsatisfactory Only
3. Repeatable
4. Maximum repeatable credit:
5. Designator Required
6. Special Fees
7. Registration Approval Type [ ] Instructor
8. Variable Title [ ]
9. Remedial [ ]
10. Honors [ ]
11. Full Time Privilege [ ]
12. Off Campus Experience [ ]

### CREDIT DESCRIPTION (INCLUDE REQUISITES):

**ME 517 - Micro/Nanoscale Physical Processes** (CH E 517) \[Sem. 2, Class 3, cr. 3. Prerequisite: ME 315 or consent of Instructor.\]

- Study of physical processes encountered in small scale systems like Micro-Electromechanical Systems (MEMS) and nanotechnology.
- Introduction of tools for micron to molecular scale analysis of statics, dynamics, electricity and magnetism, surface phenomena, fluid dynamics, heat transfer, and mass transfer.
- Quantitative analysis of specific MEMS devices using finite element analysis.

**Professor Wereley.**

### APPROVALS:

- Calumet Undergrad Curriculum Committee Date: [Female
- Fort Wayne Department Head Date: 1/29/04
- Indianapolis Department Head Date: 1/27/04
- North Central Department Head Date: 1/27/04
- West Lafayette Department Head Date: 4/27/04
- Graduate Area Committee Convener Date: 4/27/04
- Calumet Department Head Date: 1/27/04
- Calumet School Dean Date: 1/27/04
- Fort Wayne School Dean Date: 1/27/04
- Indianapolis School Dean Date: 1/27/04
- North Central Chancellor Date: 2/10/04
- West Lafayette School Dean Date: 2/10/04
- Graduate Dean Date: 5/4/04
- Purdue University Chancellor Date: 5/19/04
- Undergrad Curriculum Committee Date: 5/20/04
- Pro Tempore Date: 5/21/04
- Date Approved by Graduate Council Date: 5/21/04
- West Lafayette Registrar Date: 5/21/04

**OFFICE OF THE REGISTRAR**