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

DATE SUBMITTED: 10/2/00
DATE EFFECTIVE: 9/2001

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

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

EXISTING:

<table>
<thead>
<tr>
<th>Subject Abbreviation</th>
<th>Course Number</th>
<th>Course Title</th>
<th>Variable Title</th>
<th>Abbreviated Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ME</td>
<td>507</td>
<td>Laser Processing</td>
<td>Yes</td>
<td>Laser Processing</td>
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PROPOSED:

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SEMESTERS OFFERED

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<tr>
<th>Summer</th>
<th>Fall</th>
<th>Ag</th>
<th>Winter</th>
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COURSE DESCRIPTION (PREREQUISITES INCLUDED):

Introduces
ME 507 Laser Processing Sem. 1, 3 cr. (3 hours). Prerequisite: ME 315 or equivalent.

This course is intended to introduce background knowledge in laser science and laser technology and fundamentals involved in laser processing and manufacturing. The following topics are discussed: laser fundamentals, industrial laser systems and processes, and the laser-induced thermal, thermo-mechanical and thermo-acoustic effects. The course also discusses emerging areas of laser applications, such as microscale laser processing, ultrafast laser processing, and the relevant energy transport analyses. Laboratory and video demonstration sessions are used to enhance the overall understanding of the course materials. Professor X. Xu.

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