Course Change Request

Indiana University

1. School/Division: School of Engineering and Technology
2. Academic Subject Code: MET
3. Current Course Number: 426
4. Current Credit Hours: 3
5. Current Title: Internal Combustion Engines
6. Effective Semester/Year for changes listed below: Spring 2009
7. Instructor: Pete Hylton

Type of Change Requested (Check appropriate boxes and indicate changes)

☐ 8. Change course number to: ____________________________ (must be cleared with University Enrollment Services)
   Change to: ____________________________
   Recommended abbreviation (optional) ____________________________ (Limited to 32 Characters including spaces)

☐ 9. Current course title:
   Change to:
   ____________________________
   ____________________________

☐ 10. Current credit hours fixed at: ______________ or variable from: ______________ to ______________
    Change to credit hours fixed at: ______________ or variable from: ______________ to ______________

☐ 11. Current lecture contact hours fixed at: ______________ or variable from: ______________ to ______________
    Change to lecture contact hours fixed at: ______________ or variable from: ______________ to ______________

☐ 12. Current non-lecture contact hours fixed at: ______________ or variable from: ______________ to ______________
    Change to non-lecture contact hours fixed at: ______________ or variable from: ______________ to ______________

☐ 13. Is this course currently graded with S-F (only) grades? Yes ____ No ___
    Change to S-F (only) grading? Yes ____ No ___

☐ 14. Does this course presently have variable title approval? Yes ____ No ___
    Is variable title approval being requested? Yes ____ No ___

☐ 15. Is this course being discontinued? For all campuses ______ or for this campus only ______

☐ 16. Current course description
   Course description is not changing. Only an additional pre-requisite option is being added (MET220 was formerly the only pre-requisite, now it will be MET 220 or ME 200)
   Change course description to (not to exceed 50 words)
   Course description is not changing. ME 200 is being added as a prerequisite option in addition to MET 220.

17. Justification for change
   Course will be in 2 plans of study so an option from each will be available as a prereq.

18. Are the necessary reading materials currently available in the appropriate library? Yes

19. A copy of every new course proposal must be submitted to departments, schools, or divisions in which there may be overlap of this course with existing courses or areas of strong concern. With instructions that they send comments directly to the originating Curriculum Committee. Please append a list of departments, schools, or divisions that consulted.

Submitted by: \[Signature\] Date 10/02/08
Department Chairman/Division Director

Approved by: \[Signature\] Date 10-28-08
Dean

Date
Chancellor/Vice-President

Date
University Enrollment Services

After School/Division approval, forward the last copy (without attachments) to University Enrollment Services for initial processing and the remaining four copies and attachments to the Campus Chancellor or Vice-President.
**PURDUE UNIVERSITY**

**REQUEST FOR ADDITION, EXPIRATION, OR REVISION OF AN UNDERGRADUATE COURSE**

(100-400 LEVEL)

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**DEPARTMENT**: Mechanical Engineering Technology

**EFFECTIVE SESSION**: Fall 2000

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**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
10. Change in course requisites
11. Change in semesters offered (department head signature only)
12. Transfer from one department to another

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**PROPOSED**

<table>
<thead>
<tr>
<th>Subject Abbreviation</th>
<th>Subject Abbreviation</th>
<th>MET</th>
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<tbody>
<tr>
<td>Course Number</td>
<td>Course Number</td>
<td>426</td>
</tr>
<tr>
<td>Long Title</td>
<td>Internal Combustion Engines</td>
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</tr>
<tr>
<td>Short Title</td>
<td>IC Engines</td>
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</table>

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

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**COURSE ATTRIBUTES**: Check All That Apply

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

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**CREDIT TYPE**

- **Minimum Cr. Hrs.**
- **Maximum Cr. Hrs.**
- **Equivalent Credit**
- **Variable Credit**

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**INSTRUCTIONAL TYPE**

<table>
<thead>
<tr>
<th>Lecture</th>
<th>Recreation</th>
<th>Presentation</th>
<th>Laboratory</th>
<th>Lab Prep</th>
<th>Studio</th>
<th>Distance</th>
<th>Clinic</th>
<th>Experiential</th>
<th>Research</th>
<th>Ind. Study</th>
<th>Pract/Obser</th>
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<tr>
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**COURSE DESCRIPTION (INCLUDE REQUISITES):**

This course covers the fundamentals of internal combustion engine design and operation, with a focus on high performance.

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**Calumet Department Head**

**Date**

**Calumet School Dean**

**Date**

**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**

**Date**

**West Lafayette College/School Dean**

**Date**

**West Lafayette Registrar**

**Date**

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**OFFICE OF THE REGISTRAR**
MET426 – IC Engines

Description: Study of Fundamentals of Internal Combustion Engines
This course will be primarily task and project based rather than exam based. As such, completing weekly assignments, maintaining an accurate engine log, and completion of class projects will constitute most of the grade.

Class Times: Wednesdays 3:00-4:15, ET121
Lab Times: Mondays 4:30-6:20 or as arranged
Prerequisites: MET 220, ME200 or equivalent or permission of instructor
Instructor: Pete Hylton Phone: 317-274-7192 email: phylton@iupui.edu
Text: Engineering Fundamentals of the Internal Combustion Engine, 2nd ed. by Pulkrabek
Grading:
- Assignments and projects 200 points
- Team Project 200 points
- Final Exam (individual portion) 60 points
- (team portion) 40 points total 500 points

Minimum Scale: 90-100 = A, 80-90 = B, 70-80 = C, 60-70 = D, 0-60 = F +/- will be given

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Reading</th>
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<tbody>
<tr>
<td>8/22</td>
<td>Engine types and terms, Team Project</td>
<td>Ch 1</td>
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<tr>
<td>8/29</td>
<td>2 vs 4 cycle, alternative engines</td>
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<tr>
<td>9/5</td>
<td>Operating Parameters</td>
<td>Ch 2</td>
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<td>9/12</td>
<td>Cycles</td>
<td>Ch 3</td>
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<td>Induction &amp; Injection</td>
<td>Ch 5</td>
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<td>10/10</td>
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<td>10/17</td>
<td>Combustion Chamber</td>
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<td>10/24</td>
<td>Combustion</td>
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<td>10/31</td>
<td>Exhaust</td>
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<td>Heat Transfer</td>
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<td>11/28</td>
<td>Friction &amp; Lubrication</td>
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<td>Review</td>
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<td>Final Exam 1:00-3:00</td>
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Course Outcomes:

1. Demonstrate an appropriate mastery of the knowledge, techniques, skills and modern tools needed for design and analysis of engines.
2. Apply current knowledge and adapt to emerging applications in engine development.
3. Conduct, analyze and interpret experiments and apply results to improve processes.
4. Function effectively on teams.
5. Identify, analyze and solve technical problems.
6. Communicate effectively.