New Course Request

Check Appropriate Boxes: Undergraduate credit [ ] Graduate credit [ ] Professional credit [ ]

1. School/Division: School of Engineering & Technology
2. Academic Subject Code: MSTE

3. Course Number: 49000

4. Course Title: Motorsports Engineering Independent Study

5. Notes: (Limited to 32 Characters including spaces)

6. First Time this course is to be offered: Spring 2010

7. Credit Hours: Fixed at _______ or Variable from _______ to _______.

8. Is this course to be graded S-F (only)? Yes ______ No ______

9. Is variable title approval being requested? Yes ______ No ______

10. Course description (not to exceed 50 words) for Bulletin publication:

11. Lecture Contact Hours: Fixed at _______ or Variable from _______ to _______.

12. Non-Lecture Contact Hours: Fixed at _______ or Variable from _______ to _______.

13. Estimated enrollment: 25 of which _______ percent are expected to be graduate students.

14. Frequency of scheduling: _______. Will this course be required for majors? Yes ______ No ______

15. Justification for new course: _______. Part of the already approved BS in Motorsports Engineering _______.

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

17. Please append a complete outline of the proposed course, and indicate instructors (if known), textbooks, and other materials.

18. If this course overlaps with existing courses, please explain with which courses it overlaps and whether this overlap is necessary, desirable, or unimportant.

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

20. 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.

University Enrollment Services

Dean of Graduate School (when required)

Chancellor/Vice-President

University Enrollment Services

Approved by

Date 9-10-09

Date 9-11-09

Date 9-11-09
PURDUE SCHOOL OF ENGINEERING & TECHNOLOGY
OUTCOMES AND ASSESSMENT DATA SHEET

This is an internal document to identify and record expected outcomes and anticipated assessment strategies for all courses taught within the School of Engineering and Technology. Submission of this form, as noted below, is required and must accompany all new course and course change requests. Copies of this form should also be retained within the department and kept on file with the outline or syllabus for each course.

Course Number: MSTE 49000  Course Title: Motorsports Engineering Ind. Study

Procedure:

First, identify all instructional outcomes expected for this course, and then select all ABET outcomes which are consistent with those anticipated objectives from TABLE 1 below.

<table>
<thead>
<tr>
<th>TABLE 1 - ABET OUTCOMES</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGINEERING - EAC Criteria #3</td>
</tr>
<tr>
<td>An ability to apply knowledge of mathematics, science, and engineering</td>
</tr>
<tr>
<td>An ability to design and construct experiments as well as to analyze and interpret data.</td>
</tr>
<tr>
<td>An ability to design a system, component, or process to meet desired needs.</td>
</tr>
<tr>
<td>An ability to function on multi-disciplinary teams.</td>
</tr>
<tr>
<td>An ability to identify, formulate and solve engineering problems.</td>
</tr>
<tr>
<td>An understanding of professional and ethical responsibility.</td>
</tr>
<tr>
<td>An ability to communicate effectively.</td>
</tr>
<tr>
<td>The broad education necessary to understand the impact of engineering solutions in global societal context.</td>
</tr>
<tr>
<td>A recognition of the need for and ability to engage in life-long learning.</td>
</tr>
<tr>
<td>A knowledge of contemporary issues.</td>
</tr>
<tr>
<td>An ability to use the techniques, skills and modern engineering tools necessary for engineering practice.</td>
</tr>
</tbody>
</table>

Subsets for each of the six IUPUI Principles of Undergraduate Learning (PUL) are given on the reverse side in TABLE 2. Using a number corresponding to each ABET outcome identified from TABLE 1 above to select a column, place a "" or "X" mark in the applicable TABLE 2 row(s) cell for each PUL. Courses will often address multiple ABET outcomes and ABET outcomes frequently will overlap more than one PUL subset. Thus, it is expected completed data sheets may contain marks in several cells thereby indicating the course simultaneously satisfies multiple Principles of Undergraduate Learning while fulfilling its intended ABET objective(s).

After completing TABLE 2, briefly define or explain how the course outcomes or objectives will be evaluated within the context of the departmental assessment program in the space below:

Students in this course will be evaluated by individual assignments on pertinent topics.

Submitted By: Pete Hylton  Date: 8/15/09
TABLE 2 - MATRIX OF EXPECTED COURSE OUTCOMES

(Suggestion - while completing Table 2, place a copy of the ABET outcomes from Table 1 along side for easy cross referencing.)

<table>
<thead>
<tr>
<th>PRINCIPLES OF UNDERGRADUATE LEARNING * Require all students to demonstrate an ability to:</th>
<th>ENGINEERING OUTCOMES - EAC CRITERIA #1: items (a) to (k)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1(a) - Express ideas and facts effectively in written formats</td>
<td>a  b  c  d  e  f  g  h  i  j  k</td>
</tr>
<tr>
<td>1(b) - Comprehend, interpret, and analyze texts</td>
<td>X</td>
</tr>
<tr>
<td>1(c) - Communicate orally in one-on-one and group settings</td>
<td>X  X</td>
</tr>
<tr>
<td>1(d) - Solve problems that are quantitative in nature</td>
<td>X</td>
</tr>
<tr>
<td>1(e) - Make efficient use of information resources and technology for personal and professional needs</td>
<td>X</td>
</tr>
<tr>
<td>2(a) - Analyze complex issues and make informed decisions</td>
<td>X  X</td>
</tr>
<tr>
<td>2(b) - Synthesize information in order to arrive at reasoned conclusions</td>
<td>X</td>
</tr>
<tr>
<td>2(c) - Evaluate the logic, validity, and relevance of data</td>
<td>X</td>
</tr>
<tr>
<td>2(d) - Solve challenging problems</td>
<td>X  X  X  X  X</td>
</tr>
<tr>
<td>2(e) - Use knowledge and understanding to generate and explore new questions</td>
<td>X</td>
</tr>
<tr>
<td>3(a) - Apply knowledge to enhance personal lives</td>
<td>X  X  X</td>
</tr>
<tr>
<td>3(b) - Apply knowledge to meet professional standards and competencies</td>
<td>X  X  X</td>
</tr>
<tr>
<td>3(c) - Apply knowledge to further the goals of society</td>
<td>X  X  X</td>
</tr>
<tr>
<td>4(a) - Demonstrate substantial knowledge and understanding of at least one field of study</td>
<td>X  X  X</td>
</tr>
<tr>
<td>4(b) - Compare and contrast approaches to knowledge in different disciplines</td>
<td>X</td>
</tr>
<tr>
<td>4(c) - Modify their approach to an issue or problem based on the contexts and requirements of particular situations</td>
<td>X  X  X</td>
</tr>
<tr>
<td>5(a) - Compare and contrast the range of diversity and universality in human history, societies, and ways of life</td>
<td>X  X  X</td>
</tr>
<tr>
<td>5(b) - Analyze and understand the interconnectedness of global and local concerns</td>
<td>X  X  X</td>
</tr>
<tr>
<td>5(c) - Operate with civility in a complex social world</td>
<td>X</td>
</tr>
<tr>
<td>6(a) - Make informed and principles choices regarding conflicting situations in their personal and public lives and to foresee the consequences of these choices</td>
<td>X</td>
</tr>
<tr>
<td>6(b) - Recognize the importance of aesthetics in their personal lives and to society</td>
<td>X</td>
</tr>
</tbody>
</table>
**PURDUE UNIVERSITY**
**REQUEST FOR ADDITION, EXPIRATION, OR REVISION OF AN UNDERGRADUATE COURSE**
**(100-400 LEVEL)**

**DEPARTMENT:** Motorsports Engineering

**EFFECTIVE SESSION:** Spring 2010

**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

**PROPOSED**

<table>
<thead>
<tr>
<th>Subject Abbreviation</th>
<th>MESE</th>
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</table>

**EXISTING**

| Subject Abbreviation | MESE |

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<th>Course Number</th>
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<table>
<thead>
<tr>
<th>Long Title</th>
<th>Motorsports Engineering Independent Study</th>
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<table>
<thead>
<tr>
<th>Short Title</th>
<th>MESE Ind. Study</th>
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</thead>
</table>

**TERMS OFFERED**

- [ ] Summer
- [ ] Fall
- [ ] Spring

**CAMPUS(ES) INVOLVED**

- [ ] Calumet
- [ ] East Ed
- [ ] Ft. Wayne
- [ ] W. Lafayette
- [ ] Indianapolis
- [ ] N. Central
- [ ] Tech Statewide

**CREDIT TYPE**

<table>
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<th>1. Fixed Credit: Cr. Hrs.</th>
<th>1. Pass/Fail Only</th>
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<td>Maximum Repeats Hrs</td>
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<tr>
<th>2. Variable Credit Range:</th>
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<th>3. Equivalent Credit:</th>
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<th>4. Thesis Credit:</th>
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**INSTRUCTIONAL TYPE**

<table>
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<tr>
<th>Lecture</th>
<th>Recitation</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>
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</thead>
<tbody>
<tr>
<td>Time</td>
<td>Minutes</td>
<td>Meetings Per</td>
<td>Week</td>
<td>Weeks</td>
<td>% of Credit</td>
<td>Delivery Method</td>
<td>Delivery Medium</td>
<td>Cross-Listed Courses</td>
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<td>Allocated</td>
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<td>Internet, Live, Test-Based, Video</td>
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</tbody>
</table>

**COURSE DESCRIPTION:**

P: Permission of instructor. This is an independent study course for students wishing to pursue advanced studies under the direction of a faculty advisor.

**Signature Details:**

- Calumet Department Head: [Signature]
  Date: 9-10-09

- Calumet School Dean: [Signature]
  Date: 9-10-09

- Fort Wayne Department Head: [Signature]
  Date: 9-10-09

- Fort Wayne School Dean: [Signature]
  Date: 9-10-09

- Indianapolis Department Head: [Signature]
  Date: 9-10-09

- Indianapolis School Dean: [Signature]
  Date: 9-10-09

- North Central Department Head: [Signature]
  Date: [Redacted]

- North Central Chancellor: [Signature]
  Date: [Redacted]

- West Lafayette Department Head: [Signature]
  Date: [Redacted]

- West Lafayette College/Registrar: [Signature]
  Date: [Redacted]

**OFFICE OF THE REGISTRAR**
PURDUE UNIVERSITY
REQUEST FOR ADDITION, EXPIRATION,
OR REVISION OF AN UNDERGRADUATE COURSE
(100-400 LEVEL)

DEPARTMENT: Motorsports Engineering
EFFECTIVE SESSION: Spring 2010

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

PROPOSED:
Subject Abbreviation: MTE
Course Number: 49000
Long Title: Motorsports Engineering Independent Study
Short Title: MTE-Ind-Study

EXISTING:
Subject Abbreviation: 
Course Number: 
Long Title: 
Short Title: 

TERMS OFFERED:
Check All That Apply:
☐ Summer ☐ Fall ☑ Spring

CAMPUS(ES) INVOLVED:
☐ Calumet ☐ Cont Ed ☐ Ft. Wayne
☐ Indianapolis
☐ N. Central ☐ Tech Statewide ☐ W. Lafayette

CREDIT TYPE:
1. Fixed Credit Cr. Hrs.
2. Variable Credit Range:
   Minimum Cr. Hrs.
   Maximum Cr. Hrs.
3. Equivalent Credit:
   Yes ☐ No ☑
4. Thesis Credit:
   Yes ☐ No ☑
5. Instructional Type:
   Lecture
   Recitation
   Presentation
   Laboratory
   Lab Prep
   Studio
   Distance
   Clinic
   Experiential
   Ind. Study
   Prac/Obs

   Minutes Per Min
   Meetings Per Week
   Weeks Offered
   % of Credit Allocated

   Delivery Method (Assy. Or Syn.):
   Delivery Medium (Audio, Internet, Live, Text-Based, Video)

   Cross-Listed Courses

COURSE ATTRIBUTES:
Check All That Apply:
☐ 1. Pass/No Pass Only
☐ 2. Satisfactory/Unsatisfactory Only
☐ 3. Repeatability
☐ 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

COURSE DESCRIPTION (INCLUDE REQUIREMENTS):
P: Permission of instructor. This is an independent study course for students wishing to pursue advanced studies under the direction of a faculty sponsor.

Calumet Department Head: 
Date: 
Calumet School Dean: 
Date: 

Ft. Wayne Department Head: 
Date: 
Ft. 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: 

OFFICE OF THE REGISTRAR