New Undergraduate Course Approval Cover Form
Montana State University

This four-page form collects basic information about the proposed new course, provides information on the approval process, and includes all required approvals. Additional information (see INFO sheet) is also required as part of the New Course Packet.

Proposed New Course Information

Check here if “Special Topics” x91 course:

Requested Rubric, Course Number, Core Designation (if needed):

Example: PHL 361 RH

**Course Title:** Interaction Design Project

**Abbreviated Course Title (≤ 30 chars):** Interaction Design Project

**First Semester to be Offered:** Spring, 2014

Submitted by:

994-5942

N. Ward

nward@ie.montana.edu

Instructor:

Department:

M&IE Engineering

College:

New Course Review Process

Instructor completes the New Course Packet, with Core information if a Core designation is requested.

Instructor checks for “equivalent” course in the MUS system and recommends a common or unique course number.

Department Head’s signature indicates that course has been approved by the process used within the Department.

The Chair of the College Curriculum Committee signs to indicate College academic approval.

The College Dean signs to indicate that adequate resources are available to offer the course. Supporting information (Dean’s Statement) is typically required.

The New Course Packet (as PDF) is uploaded to the Provost’s Office server for distribution to other committees.

Course requests are sent to Curriculum and Program Committee (CPC). Core reviews are sent to appropriate Core subcommittee. Committees work in parallel when possible to speed approval process. Special topics courses (291,491) skip the CPC review (limited to two years.)

Provost’s Office reviews the new course request. New courses are submitted to MUS for Common Course Number (CCN) review. Dean and Department informed upon approval.

Approved new course sent to Registrar for inclusion in the Catalog and Schedule of Classes.

Note: This diagram illustrates the typical flow path, but at any review step there can be a request for additional information or modifications. Careful review in early steps is the best way to speed the overall process. * Special topics courses (x91) require fewer signatures, but cannot be offered more than two times without committee review.

APPROVALS

Submitter * Date

Department Head * Date

Chair, College Curriculum Comm. Date

Dean * Date

Christine M. Foreman

Chair, Core Subcommittee (if app.) Date

Chair, CPC Date

Assoc. Provost * Date
INFORMATION NEEDED FOR COMMON COURSE NUMBERING

The process for identifying a common course number for a new course is as follows:

1. Course learning outcomes are prepared for the new course.
2. The person submitting the new course request looks at the CCN website to see if a course with similar outcomes already exists in the MUS system.
   
   www.mus.edu/Qtools/CCN/ccn_default.asp

   - If a course exists with at least 80% of the same outcomes, the course is considered “equivalent” to the proposed new course, and the new course should use the existing rubric and course number.
   - If no “equivalent” course is found, the person submitting the new course request should identify a unique course number that has not been used by any other course in the MUS system.

3. The requested rubric and course number are submitted as part of the new course packet.
4. The Provost’s Office submits the learning outcomes and the requested rubric and course number to the MUS to have a course number assigned to the course. (This will typically be the requested course number, but it could be changed.)
5. The assigned common course number is reported back to the person submitting the new course request.

<table>
<thead>
<tr>
<th>Requested Rubric, Course Number, Core Designation (if needed):</th>
<th>EIND 411 Interaction Design Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Title:</td>
<td>Interaction Design Project</td>
</tr>
<tr>
<td>Abbrev. Course Title (≤ 30 char):</td>
<td>1</td>
</tr>
<tr>
<td>Credits:</td>
<td>M&amp;IE</td>
</tr>
<tr>
<td>Department Offering Course:</td>
<td>Engineering</td>
</tr>
<tr>
<td>College:</td>
<td></td>
</tr>
</tbody>
</table>

Is this course “equivalent” to a course in the MUS System?:

☐ Yes ☐ No

Learning Outcomes for the Course:

- Upon completion of this course, students will be able to:
  1. Apply course knowledge to an interactive design concept project;
  2. Document the design process and advocate design solutions to the "customer".
INFORMATION REQUIRED BY THE REGISTRAR

The data needed to enter the new course into the MSU Catalog and Schedule of Classes is collected on this page. Once the new course has been approved, this page is automatically forwarded to the Registrar for data entry.

Assigned Rubric, Course Number, Core Designation (if needed):

Course Title (for Catalog):

Course Title (for Schedule of Classes, 30 characters, max.):

First Semester to be Offered:

Restricted Entry/Consent of Instructor Required:

Instructor’s GID (last 4 digits only):

Department Offering Course:

College:

Is the requested course number available? (x4155 to check):

Frequency of course offering:

Semester(s) offered (check all that apply):

Summer Options (check all that apply):

Credits by mode of instruction:         Lecture: _______ 
                                          Seminar: _______ 
                                          Independent Study: _______ 
                                          Lab/Studio: _______ 
                                          Recitation/Discussion: _______ 
                                          TOTAL CREDITS: _______

Primary Mode(s) of Delivery:

Time and Location – Call the Registrar’s Office at x4155 to find a time and location for the course.

Assigned Day(s):

Assigned Time(s):

Assigned Building:

Assigned Room:

Capacity (room capacity, or enrollment “cap”):

Co- and Pre-Requisites – Courses numbered 200 and above are normally expected to have prerequisites. When listing multiple prerequisites, please separate courses with “and” if both are required, or “or” if only one is required.

Prerequisite(s):

Co-Requisite(s):

Course Description – Provide a course description of 40 words or less for the MSU Catalog.

EIND 411
Interaction Design Project
Interaction Design Project
Spring, 2014
6620
M&E
Engineering

EIND 410

EIND 411 is an optional 1-credit recitation to accompany EIND 410. It provides the opportunity to apply the interaction design methods discussed in EIND 410 to an actual product or service, based on student project teams guided by faculty.
DEAN’S STATEMENT

The reviewing committees are being asked to take a closer look at the resources required for each proposed new course. In many cases new courses will replace existing courses and the new course request is effectively resource neutral, however that is not always the case. For example, a new elective course that would result in distributing an existing student population across a larger number of courses would represent a significant increase in expenditures for the new course, and no increase in total student credit hours. A funding mechanism for such a course would need to be identified. The Dean’s Statement is the place to document how the costs of the proposed new course will be covered.

Recent revisions to the Industrial Engineering Program necessitated that EIND 410 be reduced from 3 credits to 2 credits. In order to not lose the design experience aspects of this course, EIND 411 was created as a 1 credit, co-registered course. EIND 411 will continue to be taught by Dr. Nick Ward in the IE department. No new resources are expected to be needed in order to offer EIND 411.
New Undergraduate Course Narrative  
Montana State University  
Updated August 23, 2012

Please provide the following information in narrative format. Substantive responses to all criteria are required. Although not required, a draft syllabus can also be helpful to the committee in understanding the details of the proposed course.

General Course Information
1. Requested Rubric, Course Number, and Core Designation (if any)

> EIND 411

2. Course Title

> Interaction Design Project

3. Provide a general description of the course explaining the need for the course, its goals, and its overall structure. This is the most important part of the application and should offer a good sense of what students will experience by taking this class.

> Last year, EIND 410 was a 3 credit product design course: 2 credits lecture, 1 credit lab. The lab credit was assigned to a team project (e.g., develop and present a product design concept) as a major component of the course grade. The IE program curriculum was changed, requiring that EIND 410 be reduced to 2 credits (lecture). However, there is still a desire to retain the lab (project) component for students interested in design. Moreover, future plans to develop joint-degree programs with the School of Art and Department of Psychology will benefit from retaining the project credit component.

4. Based on what types of student work (e.g., tests, homework assignments, papers, performances, etc.) will grades be determined?

> Student work is based on Group Project Deliverables (5% each, 30% total) = Mission Statement, User Matrix, Personas, Need Statements, Task/Function Analysis, Concept Matrix; Group Project Presentation (20%); and Individual contribution rating made by team members (50%).

5. Provide a course content outline containing all major topics plus a brief description of the material to be covered under each major topic heading.

> Attached.

6. List required texts or other required references.

7. What are the estimated enrollment and student credit hour (SCH) production?
   [SCH = (enrollment * credits)]
   > 20-student enrollment x 1 cr. = 20 SCH

8. Will there be an enrollment cap that restricts enrollment below the level of student demand? If so, what is the enrollment cap and why is it necessary?
   > Same cap as EIND 410 (20) since it is a co-requisite. It is anticipated that a cap of 20 will easily meet student demand.

9. Will course be a “restricted enrollment” course? If so, why is restricted enrollment necessary?
   > No.

10. Describe how the success of the course will be evaluated? (“End-of-semester student evaluations" is not the answer to this question. How will the instructor determine if the learning outcomes are being met, and how will the department determine if the course is fulfilling its intended purpose?)
    > The project concept presentation will demonstrate if the students have acquired the learning outcomes for this course.

11. Is the instructor a member of the regular faculty (i.e., tenured or tenure-track)? If no, please describe the instructor’s qualifications, attach a Vita, and provide a separate letter of support, signed by the department head (or appropriate unit director), addressing the instructor’s qualifications to teach this course.
    > Yes.

**Level of Offering**

12. Has the course been offered previously under 280/291 or 480/491? If so, when? Under what number? What was the enrollment? What level of students took the course?
    > No.

13. Justify the level of course offering.
    > EIND 410 is a co-requisite. This is appropriate as a 400 level course given that it presumes some prior experience with disciplines relevant to human factors, design, and evaluation. It is a versatile course that can examine topics at many levels, thereby being appropriate for both undergraduate and graduate students.

**Relationship to other Courses, Curricula, and Departments**

14. Does this course build on or interrelate with other courses in your curriculum or related curricula? If so, which ones?
> Yes. It is deliberately related to EIND 410 because it will be the stand-alone project component of the original EIND 410 that was 3 credits.

15. Do the topics in the proposed course duplicate or reiterate those in other courses in this or any other department? If so, how do the coverage and educational experience differ and how is this duplication or reiteration justified? Also, what liaison (which is expected in cases of apparent overlap) has been conducted with other departments? Report reactions, both favorable and unfavorable.

> The course provides a project based learning experience for students to demonstrate the skills taught in EIND 410.

16. What programs (departments, colleges) will be impacted by the SCH production of this course? That is, where do you think the SCH in the proposed course are likely to come from? If the expected SCH production of the proposed course is greater than 1000, and the SCH are expected to come from other colleges, what steps have been taken to make the other units aware of the potential loss of SCH? Report reactions, both favorable and unfavorable.

> There will be no additional impact from the projected 20 SCH. The 1-credit recitation will reinstate the project activity that was originally presented within the original 3 credit version of the EIND 410 course, prior to the 1-credit reduction.

17. If this proposed course has a significant interdisciplinary component, please explain briefly. Otherwise, indicate n/a.

> The course combines engineering and psychology in the process and execution of design.

**Students Served**

18. Does the proposed course serve majors only? Non-majors only? Both majors and non-majors? What other majors might be interested in this course? State areas or disciplines to be served and indicate the specific efforts that will be made to make the course material relevant to all disciplines served.

> This course is intended for majors and non-majors in any discipline related to design. This would include engineering, psychology, computers science and art.

**Resources**

19. What additional resources (e.g., additional instructional FTE, required technologies), if any, will be required to offer this course? Are there any resource issues for the students who will take the course (e.g., required technologies, travel, on-line access requirements)? Will there be an additional fee charged to students taking this course? Please explain.

> None.

20. What existing information resources – print (books, journals, documents), audiovisual (videos, DVDs, CDs or other), and/or electronic (e-books, databases, electronic journals and web sites) – provided by the MSU Libraries will be used by students in this course? Provide examples as well as descriptive information. If additional information resources are necessary, please discuss those acquisitions
with the library (x6549 Collection Development) at least three months prior to the beginning of the semester in which this course will be taught.

> No additional resources will be required.

**Other Supporting Material**

21. Include any additional information you feel is needed to support this request.

>
EIND 411 – Interaction Design Project
Spring 2014 (revised 2/2/2013)

Instructor: Professor Nicholas Ward,
nward@ie.montana.edu
Office Hours: MW 3:00 to 4:00 pm, RH 303

Credits: 1 credit recitation
Prerequisites: EIND 410 co-requisite

Recitation: Sec 1: F 13:10 – 15:00, RH 401 (specified dates only)

Description: EIND 410 provides an overview of “interaction design” which is a
design philosophy and process that emphasizes the experience
and method of interacting with a product (such as software, web,
or electronic and communication devices). As such, it focuses on
the need for creativity to design products that are not only usable,
but also desirable.

EIND 411 is an optional 1-credit recitation to accompany
EIND410. It provides the opportunity to apply the interaction
design methods discussed in EIND410 to an actual product or
service based on student project teams guided by faculty.

Objectives: Upon completion of this course, students will be able to:

• Apply course knowledge to an interactive design concept
  project;
• Document the design process and advocate design solutions to
  the “customer”.

Design Project: You will actively participate in a group-based Design Concept
Project. This project will evolve during the course in parallel with
the topics covered in EIND410 lectures.

Recitation: The recitation period is provided for regular group meetings for
project work, project progress reviews with the course instructor,
and presentation of project deliverables.


Reference (Free): Safari Tech Books Online:¹

Seductive Interaction Design: Creating Playful, Fun, and Effective User Experiences

Designing with the Mind in Mind: Simple Guide to Understanding User Interface Design Rules

100 Things Every Designer Needs to Know About People

Universal Principles of Design: 125 Ways to Enhance Usability, Influence Perception, Increase Appeal, Make Better Design Decisions, and Teach through Design

Also, the Human Factors Design Standard (HFDS) is available as a free multi-platform download:
http://hf.tc.faa.gov/hfds/download.htm

Assessment:
The following methods of assessment will be used in this course:

- Group Project Deliverables (5% each, 30% total) = Mission Statement, User Matrix, Personas, Need Statements, Task/Function Analysis, Concept Matrix.
- Group Project Presentation (20%)
- Individual participation rating made by members (50%)

Grading:
A letter grade will be assessed using the following table as a general guideline.² Plus and minus grades may be assigned (e.g., 80 to 82% = B-, 87 to 89% = B+) for grade boundaries.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90-100%</td>
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</tbody>
</table>

¹ Keep in mind that only 4 people at a time can be using Safari Tech Books, so if you can click the "sign out & clear Session" button when you are finished at the top-right of the Safari page, that will free up user spot should other people be waiting.
² Note that students coming into the program since Fall 2005 must achieve a minimum grade of C- to pass a required course.
Communication: All students registered in this course can use the MSU listserv to send emails to the entire class
https://www.montana.edu/itc/classrolls/email.html

Instructor Philosophy: My presumption is that each individual student is intrinsically interested in this course. My role is to facilitate the learning process for you in order to that you acquire the requisite knowledge and skills to meet the course objectives. Ultimately, you are responsible for your own learning experience and success. To that end, I recommend that you read the university guidelines for student conduct:
http://www2.montana.edu/policy/student_conduct/cg300.html.

Course Culture: Given that creativity is critical to the design process, the nature of this course is necessarily fluid with few absolutes. The style of instruction is intended to challenge you to discover your own abilities and capacity for creativity. Do not be afraid to think outside your normal box. In fact, I insist that you do. This course is meant to provide you a safe environment to think differently about the engineering design process. As long as you systematically follow a prescribed design process and creatively integrate knowledge of user sensory, cognitive, and emotional needs, there is no one correct solution to which you must conform.
## EIND 411 TOPIC OUTLINE

<table>
<thead>
<tr>
<th>Week</th>
<th>Recitations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F 13:10 – 15:00, RH 401</td>
</tr>
<tr>
<td>1</td>
<td>Introduction</td>
</tr>
<tr>
<td>2</td>
<td>Project Overview</td>
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<tr>
<td>3</td>
<td>Mission statement</td>
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<td>4</td>
<td>User Matrix</td>
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<td>5</td>
<td>Team Project Work</td>
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<tr>
<td>6</td>
<td>Personas</td>
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<tr>
<td>7</td>
<td>Team Project Work</td>
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<tr>
<td>8</td>
<td>Need Statements</td>
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<td>9</td>
<td>Tasks Analysis</td>
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<tr>
<td>10</td>
<td>Team Project Work</td>
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<td>11</td>
<td>Concept Matrix</td>
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<td>12</td>
<td>Team Project Work</td>
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<tr>
<td>13</td>
<td>Design Review</td>
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<tr>
<td>14</td>
<td>Team Project Work</td>
</tr>
<tr>
<td>15</td>
<td>Project Presentation (10 min); Prototype (20 min); Questions (10 min).</td>
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</tbody>
</table>