17. Change in Curriculum

**Dwight Look College of Engineering**
Department of Industrial and Systems Engineering
Minor in Industrial Engineering
CHANGE IN CURRICULA
Texas A&M University
Request for a Change in Curriculum
Undergraduate • Graduate • Professional

1. Program request type:
   ☒ Undergraduate    ☐ Graduate    ☐ First Professional (e.g., DVM, JD, MD, etc.)
   ☐ Degree Program    ☐ Minor    ☐ Certificate

2. Request change for:
   ☐ Degree Program    ☐ Minor    ☐ Certificate

3. Request submitted by (Department or Program Name):
   Industrial and Systems Engineering

4. Program Designation and Name:
   (e.g., B.A. in History, Minor in History, Certificate in European Union):
   Minor in Industrial Engineering

5. Brief description of change:
   Three required courses and five elective courses for the minor have been replaced with new courses.

6. Rationale for change:
   The Industrial and Systems Engineering (ISEN) department has performed a complete overhaul of its courses and redesigned its curriculum. All required ISEN courses have changed and new electives have been developed. These were recently approved. Hence the minor courses also change.

Use the checkboxes below to make sure that all information is included.

7. a. Proposed curriculum attached.    ☒ Yes    ☐ No
    b. Current catalog curriculum with handwritten edits attached.    ☒ Yes    ☐ No
    c. Current Howdy degree evaluation with handwritten edits attached.    ☒ Yes    ☐ No

   Please make sure the attached proposed curriculum, catalog and Howdy degree evaluation match.

8. a. Will degree program hours change (increase/decrease) due to the proposed curriculum changes?    ☐ Yes    ☒ No
    b. If yes, degree program hours will change from:    ☒ Yes    ☐ No
    c. If yes, is the Texas Higher Education Coordinating Board form attached?
       http://www.thecb.state.tx.us/index.cfm?objectid=A0F9F7FA-9A92-4F11-2756AD3BBF9D60    ☐ Yes    ☐ No

9. If proposed changes affect other unit(s), are letters of support attached?    ☐ Yes    ☐ No

IMPORTANT NOTE: Curriculum changes submitted through the approval process and fully approved by February (December-UC/CC, January-Faculty Senate, February President) will be effective in the next academic year. Changes requiring approval beyond the University should complete the internal approval process early in the fall semester whenever possible in order to ensure timely implementation.

Approval recommended by:

Cesar O. Malave
Department Head or Program Chair (Type Name & Sign)    Date

Dean of College    Date

Chair, College Review Committee    Date

Chair, GC or UCC    Date

Questions regarding this form should be directed to Curricular Services at 845-8201 or smabarnes@tamu.edu
Curricular Services – 04/14
Proposed INEN Undergraduate Minor Curriculum
Department of Industrial and Systems Engineering

Required courses (9 credits):
ISEN 310 Uncertainty Modeling for Industrial Engineering (3-0)
ISEN 370 Production Systems Engineering (3-0)
ISEN 320 Operations Research I (3-0)

Electives (6 credits): Select two of the following
ISEN 350 Quality Engineering
ISEN 330 Human Systems Interaction
ISEN 230 Informatics for Industrial Engineers
ISEN 340 Operations Research II
ISEN 355 Systems Simulation

Students must make a grade of “C” or better in all courses.
Industrial Engineering - Minor

The Department of Industrial and Systems Engineering offers a minor in Industrial Engineering.

Program Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>ISEN 220</td>
<td>Introduction to Production Systems</td>
<td>3</td>
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<tr>
<td>ISEN 315</td>
<td>Production Systems Planning</td>
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<tr>
<td>ISEN 420</td>
<td>Operations Research I</td>
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</table>

Select two of the following:

- ISEN 314 — Statistical Control of Quality
- ISEN 316 — Production Systems Operations
- ISEN 421 — Operations Research II

Total Semester Credit Hours 15

Students must make a grade of "C" or better in all courses.
Information for Degree Evaluation
This is NOT an official evaluation.

Program Evaluation

Limitation: Correspondence: No more than 12 hours of correspondence earned through an accredited institution may be used for an undergraduate degree.

Limitation: Combination: Maximum combination of 18 hours of 481, 482, 485 and/or 491 courses may be used for an undergraduate degree.

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<th>Program</th>
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<th>Fall 2015 - College Station</th>
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<td>College</td>
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Program GPA: Yes
Overall GPA: No

Other Course Information
Transfer: 0.000
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This is NOT an official evaluation.

Area: Major Coursework (44.000 credits) - Not Met:

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**Area:** Citizenship (12.000 credits) - Not Met  
**Description:** Completion of 4 semesters of Upper-Level ROTC may be substituted for 3 hours of American History and 3 hours of Political Science.  
**Met:** Condition Rule Subject Attribute Low High Required Required Term Subject Course Title Attribute Credits Grade Source Courses  
| No | A. American History Req 6hrs  
|    | Select from any course with the [HIS5] attribute.  
| No AND B. Political Science Req 6hrs  
|    | Take POLS 206 and POLS 207.  
|    | Total Credits and GPA 0.000 .00  

Unofficial Evaluation

**Area:** Work Not Applied - Met  
**Description:** See advisor for acceptable substitutions.  
**Met:** Condition Rule Subject Attribute Low High Required Required Term Subject Course Title Attribute Credits Grade Source Courses  
| No | A. Courses not applied  
|    | Total Credits and GPA 0.000 .00  

Unofficial Evaluation

**Area:** Industrial Engr Minor (15.000 credits) - Not Met  
**Description:** No grade below a 'C' is acceptable.  
**Met:** Condition Rule Subject Attribute Low High Required Required Term Subject Course Title Attribute Credits Grade Source Courses  
| No | A. ISEN 220  
|    | ISEN 310  
|    | Must make a grade of 'C' or better.  
|    | (Prerequisites include ENGR 110, MATH 212 or 119, STAT 211 and 221, 224.)  
| No AND B. ISEN 345  
|    | 370  
|    | Must make a grade of 'C' or better.  
| No AND C. ISEN 490  
|    | 320  
|    | Must make a grade of 'C' or better.  
| No AND D. Elective 6hrs  
|    | 350, 330, 230, 340, 355  
|    | Total Credits and GPA 0.000 .00  

Unofficial Evaluation

**Area:** University Writing Requirement - Not Met  
**Met:** Writing Requirement  
| No | A.  
|    | Two courses required:  
|    | Only sections of ASPO 302, ENRR 482, PHIL 482 with the Writing attribute [UWRT] may be used to satisfy this requirement.  
|    | Total Credits and GPA 0.000 .00  

Unofficial Evaluation

**Area:** Int'l & Cult Diversity - Not Met