

Program Change Request

Date Submitted: 11/12/18 12:31 pm

Viewing: **BS-INEN : Industrial Engineering - BS**

Last approved: 03/27/18 6:09 pm

Last edit: 11/20/18 11:36 am

Changes proposed by: yesenia_zavala

Catalog Pages Using [Industrial Engineering - BS](#)
this Program

Contact(s)

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Academic level Undergraduate
 Effective Term 2019-2020
 Department Industrial & Systems Eng
 College Engineering
 Program type Degree
 Degree designation BS - Bachelor of Science
 With a major in Industrial Engineering (INEN)
 Associated Program **Not Applicable**

Catalog Program Title
Industrial Engineering - BS

CIP and Fund code 14350100

Rationale for Proposal

The program is removing ENGR 482 from the curriculum since the course is being phased out by the College. A UCC course is being added to accommodate for the removal of ENGR 482 and changing flow of ENGR 482 curriculum are being made to meet reflect changes by the LPC requirement. College of Engineering to the first year curriculum and to the engineering/physics courses sequences to better manage enrollment. The total hours do not change and the core curriculum requirements are still met.

Program hours 128

Is this program eligible for financial aid? Yes

Will program hours change (increase/decrease) due to the proposed curriculum changes? No

Program delivery mode
On-campus

In Workflow

1. ISEN Department Head
2. Curricular Services Review
3. EN Committee Preparer UG
4. EN Committee Chair UG
5. EN College Dean UG
6. UCC Preparer
7. UCC Chair
8. Faculty Senate Preparer
9. Faculty Senate
10. Provost II
11. President
12. Curricular Services

Approval Path

1. 10/17/18 8:51 am
Mark Lawley (malawley): Approved for ISEN Department Head
2. 10/18/18 4:17 pm
Angel Mario Carrizales (carri1214): Rollback to Initiator
3. 11/20/18 11:02 am
Mark Lawley (malawley): Approved for ISEN Department Head
4. 11/20/18 11:39 am
Angel Mario Carrizales (carri1214): Approved for Curricular Services Review
5. 11/20/18 1:56 pm
Eileen Hoy (ehoy): Approved for EN Committee Preparer UG
6. 11/20/18 2:47 pm
Prasad Enjeti (enjeti): Approved for EN Committee Chair UG
7. 11/20/18 2:48 pm
Prasad Enjeti (enjeti): Approved for EN College Dean UG
8. 11/20/18 2:53 pm
Sandra Williams (sandra-williams): Approved for UCC Preparer
9. 12/10/18 10:49 am
Terra Bissett (t.bissett): Approved for UCC Chair

Catalog Program Requirements

History

1. Feb 13, 2017 by Sarah Morgan (sdmorgan)
2. Mar 27, 2018 by Savannah Darbonne (savannah.darbonne)

Plan of Study Grid

		Semester Credit Hours
Second Year		
Fall		
ENGR 217/PHYS 217	Experimental Physics and Engineering Lab III - Electricity and Magnetism	12
MATH 251	Engineering Mathematics III	3
MMET 181	Manufacturing and Assembly Processes I	3
PHYS 207	Electricity and Magnetism for Engineering and Science 1	3
STAT 211	Principles of Statistics I	3
Select one of the following:		4
CSCE 110	Programming I	
CSCE 111	Introduction to Computer Science Concepts and Programming	
CSCE 121	Introduction to Program Design and Concepts	
CSCE 206	Structured Programming in C	
Semester Credit Hours		18
Spring		
MATH 304	Linear Algebra	3
ISEN 210	Fundamentals of Industrial Engineering Design	4
ISEN 230	Informatics for Industrial Engineers	3
MEEN 222/MSEN 222	Materials Science	3
MEEN 221	Statics and Particle Dynamics	3
Semester Credit Hours		16
Third Year		
Fall		
ISEN 310	Uncertainty Modeling for Industrial Engineering	3
ISEN 320	Operations Research I	3
ISEN 330	Human Systems Interaction	3
MATH 308	Differential Equations	3
Select one of the following:		3
COMM 203	Public Speaking	
COMM 205	Communication for Technical Professions	
ENGL 203	Writing about Literature	
ENGL 210	Technical and Business Writing	
Select one of the following:		3
BAEN 320	Engineering Thermodynamics	
ECEN 215	Principles of Electrical Engineering	
MEEN 315	Principles of Thermodynamics	
Semester Credit Hours		18
Spring		
ISEN 340	Operations Research II	3
ISEN 350	Quality Engineering	3
ISEN 355	System Simulation	3
ISEN 370	Production Systems Engineering	3
University Core Curriculum	3	3
High Impact Experience 6		
ISEN 399	Professional Development	0
Semester Credit Hours		15
Fourth Year		
Fall		
University Core Curriculum	3	6
Technical electives 7		9
Semester Credit Hours		15
Spring		
ENGR 482/PHIL 482	Ethics and Engineering	3
ISEN 460	Capstone Senior Design	3
University Core Curriculum	3	3
Technical electives 7		9
Semester Credit Hours		15

Total Semester Credit Hours

97

6All students are required to complete a high-impact experience in order to graduate. The list of possible high-impact experiences is available in the INEN advising office.

7A total of 18 hours of technical electives is required, of which 12 hours must be industrial engineering courses. The choice of courses to be taken must be made in consultation with the student's advisor and/or the Industrial Engineering Advising Office.

The Bachelor of Science degree in Industrial Engineering requires a grade of C or better for required industrial engineering (ISEN) courses. If a course is repeated, only the most recent grade is used in fulfilling this requirement.

Total Program Hours 128

Additional information	3-21-18 - Update footnote 1 in table 2 for consistency throughout college.
Required Proposal Forms	BS INEN 2018-2019.pdf 012218PresidentApprovalMemo.pdf 2019-2020 Program Changes- Catalog.pdf
Reviewer Comments	Angel Mario Carrizales (carri1214) (10/18/18 4:09 pm): Edits made to conform to catalog style guidelines. Angel Mario Carrizales (carri1214) (10/18/18 4:17 pm): Rollback: Please address the following. 1) Remove documents that applied to the previous submission. 2) Upload an edited degree evaluation from Howdy that reflects the proposed curriculum changes for 2019-2020. Angel Mario Carrizales (carri1214) (11/20/18 11:39 am): Initial concerns addressed. Terra Bissett (t.bissett) (12/10/18 10:49 am): UCC approved December 2018.

Key: 564

Detail Requirements

Information for Degree Evaluation

 This is NOT an official evaluation.

Print Instructions

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.

Limitation No more than 50% of courses required for the degree plan can be taken as Distance Education Courses for non-distance degree programs.

Limitation Only one of the following will satisfy the requirements for a degree: GENE 301, GENE 302, GENE 315, and GENE 320.

Limitation Only one of the following will satisfy the requirements for a degree: MATH 131, MATH 142, MATH 147, MATH 151, and MATH 171.

Limitation Only one of the following will satisfy the requirements for a degree: MATH 140, MATH 141, and MATH 166.

Limitation Only one of the following will satisfy the requirements for a degree: MATH 148, MATH 152, and MATH 172.

Limitation Only one of the following will satisfy the requirements for a degree: MATH 221, MATH 251, and MATH 253.

Limitation Only one of the following will satisfy the requirements for a degree: MATH 304, MATH 309, MATH 311, and MATH 323.

Limitation Only one of the following will satisfy the requirements for a degree: STAT 301, STAT 302, and STAT 303.

Program :	BS INEN	Catalog Term :	Fall 2018 - College Station
Campus :	College Station	Evaluation Term :	Fall 2018 - College Station
College :	Engineering	Expected Graduation Date :	
Degree :	Bachelor of Science	Request Number :	10
Level :	Undergraduate	Results as of :	Nov 02, 2018
Majors :	Industrial Engineering	Minors :	
Departments :	Industrial & Systems Eng	Concentrations :	

	Met	Credits	Courses		
		Required	Used	Required	Used
Total Required :	No	128.000	0.000		0
Program GPA :	Yes	.00	.00		
Overall GPA :	No	2.00	.00		
Other Course Information					
Transfer :			0.000		0

This is NOT an official evaluation.

Area Major Coursework (31.000 credits) - Not Met

Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course Title	Attribute	Credits	Grade	Source
No		A.	ISEN 210	4hrs											
			Must make a grade of 'C' or better.												
No	AND	B.	ISEN 230	3hrs											
			Must make a grade of 'C' or better.												
No	AND	C.	ISEN 310	3hrs											
			Must make a grade of 'C' or better.												
No	AND	D.	ISEN 320	3hrs											
			Must make a grade of 'C' or better.												
No	AND	E.	ISEN 330	3hrs											
			Must make a grade of 'C' or better.												
No	AND	F.	ISEN 340	3hrs											
			Must make a grade of 'C' or better.												

unofficial evaluation

Area Life and Physical Sciences (10.000 credits) - Not Met

Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course	Title	Attribute	Credits	Grade	Source
No		A.	CHEM 107 and 117	4hrs												
			Must make a grade of 'C' or better.													
No	AND	B.	PHYS 206	3hrs												
			Must make a grade of 'C' or better.													
No	AND	C.	PHYS 207	3hrs												
			Must make a grade of 'C' or better.													

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Area Language, Philosophy & Culture (3.000 credits) - Not Met

Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course	Title	Attribute	Credits	Grade	Source
No		A.	ENGR 482	3hrs												
			<i>LPC Requirement 3hrs</i>													

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Area Creative Arts (3.000 credits) - Not Met

Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course	Title	Attribute	Credits	Grade	Source
No		A.	Creative Arts Requirement	3hrs												
			Select three hours from any course with the Creative Arts attribute [KCRA].													

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Area Social and Behavioral Sciences (3.000 credits) - Not Met

Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course	Title	Attribute	Credits	Grade	Source
No		A.	Social Science Rqmt	3hrs												
			Select from courses with the Social and Behavioral Science attribute [KSOC].													

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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 Credits	Required Courses	Term	Subject	Course	Title	Attribute	Credits	Grade	Source
No		A.	American History Rqmt	6hrs												
			Select from any course with the [KHIS] attribute.													
No	AND	B.	Political Science Rqmt	6hrs												
			Take POLS 206 and POLS 207.													

Total Credits and GPA 0.000 .00

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Area : Work Not Applied - Met

Description See advisor for acceptable substitutions.

Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course	Title	Attribute	Credits	Grade	Source
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No A. Courses not applied

Total Credits and GPA 0.000 .00

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Area High Impact Experience - Not Met

Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course	Title	Attribute	Credits	Grade	Source
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No A. High-Impact Experience

One course required.
A list of possible high-impact experiences is available in the INEN advising office.

Includes:

- ISEN 399
- Any ISEN course with the study abroad attribute [SABR]
- Any ISEN course with the research experience attribute [QRES]

Total Credits and GPA 0.000 .00

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Area University Writing Requirement - Not Met

Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course	Title	Attribute	Credits	Grade	Source
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No A. Writing Requirement

Two courses required.
Only sections of ENGR 482; ISEN 330, 460; PHIL 482 with the Writing attribute [UWRT] may be used to satisfy this requirement.

Total Credits and GPA 0.000 .00

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Area Int'l & Cult Diversity - Not Met

Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course	Title	Attribute	Credits	Grade	Source
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No A. Int'l & Cultural Diversity ~~6hr~~ ⁷

Select from courses with the International and Cultural Diversity attribute [UICD] (except sections of BUSN 289 with the UWRT attribute).

3 hrs from ICD
3 hrs from cultural discourse courses

Total Credits and GPA 0.000 .00

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Area Foreign Language - Not Met

Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course	Title	Attribute	Credits	Grade	Source
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No A. Foreign Language Rqmt

Complete one of the following:

1. Two years of the same foreign language in High School.
2. A two semester sequence of the same foreign language for University credit.

Total Credits and GPA 0.000 .00

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Area : Residence Requirement - Not Met

Description A minimum of 36 hours of 300-400 level coursework must be completed at Texas A&M University. 12 hours must be in the major field.
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Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course Title	Attribute	Credits	Grade	Source
No		A.	Residence-Major	12hrs				Select from ISEN 300-499.							
No	AND	B.	Residence 300-499	24hrs				Select any courses level 300-499.							

Total Credits and GPA 0.000 .00

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Area GPR-Major - Not Met

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Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course Title	Attribute	Credits	Grade	Source
No		A.	Major GPR	43+hrs				Includes ISEN 100-499.							

Total Credits and GPA 0.000 .00

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