

Program Change Request

Date Submitted: 10/18/18 4:39 pm

Viewing: **BS-CHEN : Chemical Engineering - BS**

Last approved: 04/10/18 8:44 am

Last edit: 11/26/18 10:35 am

Changes proposed by: kmabray

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

Contact(s)

Name	E-mail	Phone
Katherine Toback	ktoback@tamu.edu	862-1480

Academic level Undergraduate
 Effective Term 2019-2020
 Department Chemical Engineering
 College Engineering
 Program type Degree
 Degree designation BS - Bachelor of Science
 With a major in Chemical Engineering (CHEN)
 Associated Program **Not Applicable**
 Catalog Program Title
 Chemical Engineering - BS
 CIP and Fund code 14070100

Rationale for Proposal

~~We are altering first three terms as mandated by College of Engineering to meet their First Year program. We are removing Based upon this, making adjustments to better align the ENGR 482 requirement per CoE request curriculum and replacing into CHEM the layout of how the courses with new numbers. are taught. correcting Renumbering courses to match First Year curriculum level.~~

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

Catalog Program Requirements

In Workflow

1. CHEN 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. 10/08/18 4:55 pm
Micah Green (micah.green):
Approved for CHEN Department Head
2. 10/12/18 3:06 pm
Angel Mario Carrizales (carr1214): Rollback to Initiator
3. 10/18/18 4:40 pm
Micah Green (micah.green):
Approved for CHEN Department Head
4. 10/22/18 3:22 pm
Angel Mario Carrizales (carr1214): Approved for Curricular Services Review
5. 10/22/18 5:31 pm
Eileen Hoy (ehoy):
Approved for EN Committee Preparer UG
6. 10/22/18 8:54 pm
Prasad Enjeti (enjeti):
Approved for EN Committee Chair UG
7. 10/23/18 10:07 am
Prasad Enjeti (enjeti):
Approved for EN College Dean UG
8. 11/06/18 9:17 am
Sandra Williams (sandra-williams):
Approved for UCC Preparer
9. 12/10/18 10:53 am
Terra Bissett (t.bissett):
Approved for UCC Chair

History

1. Feb 13, 2017 by
Katherine Toback
(kmabray)
2. Apr 10, 2018 by
Katherine Toback
(kmabray)

Plan of Study Grid

Second Year		Semester Credit Hours
Fall		
CHEM 227	Organic Chemistry I	4
& CHEM 237	and Organic Chemistry Laboratory 1	
CHEN 204	Elementary Chemical Engineering	3
ENGR 217/PHYS 217	Experimental Physics and Engineering Lab III - Electricity and Magnetism 2	
MATH 251	Engineering Mathematics III 1	3
PHYS 207	Electricity and Magnetism for Engineering and Science 1	3
	Semester Credit Hours	15
Spring		
CHEM 228	Organic Chemistry II	4
& CHEM 238	and Organic Chemistry Laboratory 1	
CHEN 205	Chemical Engineering Thermodynamics I	3
ENGL 210	Technical and Business Writing	3
MATH 308	Differential Equations 1	3
University Core Curriculum 3		3
	Semester Credit Hours	16
Third Year		
Fall		
CHEN 304	Chemical Engineering Fluid Operations	3
CHEN 320	Numerical Analysis for Chemical Engineers	3
CHEN 322	Chemical Engineering Materials	3
CHEN 354	Chemical Engineering Thermodynamics II	3
University Core Curriculum 3		3
Science Elective 6		3
	Semester Credit Hours	18
Spring		
CHEM 322	Physical Chemistry for Engineers 1	3
CHEN 323	Chemical Engineering Heat Transfer Operations	3
CHEN 324	Chemical Engineering Mass Transfer Operations	3
CHEN 364	Kinetics and Reactor Design	3
University Core Curriculum 3		3
High Impact Experience 7		0
CHEN 399	Mid-Curriculum Professional Development	
	Semester Credit Hours	15
Fourth Year		
Fall		
CHEN 382	Bioprocess Engineering	3
CHEN 425	Process Integration, Simulation and Economics	3
CHEN 432	Chemical Engineering Laboratory I	2
CHEN 461	Process Dynamics and Control	3
CHEN 481	Seminar	1
CHEN 482	Bioprocess Engineering	3
CHEN specialty options 6		3
	Semester Credit Hours	15
Spring		
CHEN 426	Chemical Engineering Plant Design	3
CHEN 433	Chemical Engineering Laboratory II	2
CHEN 455/SENG 455	Process Safety Engineering	3
ENGR 482/PHIL 482	Ethics and Engineering	3
University Core Curriculum		3
University Core Curriculum 3		6
CHEN specialty options 6		3
	Semester Credit Hours	17

Total Semester Credit Hours

96

6 For a list of approved specialty options, please see a chemical engineering advisor.

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

A grade of C or better is required in all CHEN courses.

Total Program Hours 128

Additional information **We we have returned CHEM intro courses to 119 and 120 and removed ENGR 482 as required for the Core Curriculum area.... first year from the program and corrected the degree audit to return the CHEM back to 101/102- Correcting audit to match C o Better language in First Year curriculum**

Required Proposal Forms [CHEN Curriculum 2018.pdf](#)
[012218PresidentApprovalMemo.pdf](#)
[2019 CHEN degreeval v3.pdf](#)

Reviewer Comments **Angel Mario Carrizales (carri1214) (10/12/18 3:06 pm):** Rollback: Please address the following. 1) Program hours in the plan of study grid do not sum up to 128 (32 for 1st year and 93 for 2nd through 4th year) The discrepancy is caused by the removal of ENGR 482. Should fourth-year fall list 6hrs of UCC electives instead of the 3? Or will it be accounted in another term? 2) The Engineering First Year Curriculum list ENGL 103 or ENGL 104, however the evaluation only list ENGL 104. 3) ENGL 103, ENGL 104. CHEM 119, CHEM 120. MATH 151, MATH 152 and PHYS 206 are listed in the Engineering First Year Curriculum as requiring a C or better; however the evaluation does not.

Angel Mario Carrizales (carri1214) (10/22/18 3:21 pm): Initial concerns addressed.

Angel Mario Carrizales (carri1214) (11/21/18 10:00 am): The Department of Chemical Engineering submitted a course number change request for CHEN 382. The proposed new number is 482.

Angel Mario Carrizales (carri1214) (11/26/18 10:34 am): Updated the catalog program requirements and the degree evaluation as requested by the department (Changed CHEN 382 to CHEN 482.)

Terra Bissett (t.bissett) (12/10/18 10:53 am): UCC approved December 2018.

Key: 405


[Print](#)

Detail Requirements

Katherine L. Mabray
Oct 08, 2018 12:49 pm

Viewing: [Degree Evaluation](#) (DEGEVAL, , [Email](#))
[Change Student](#)

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 CHEN	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 :	11
Level :	Undergraduate	Results as of :	Oct 08, 2018
Majors :	Chemical Engineering	Minors :	
Departments :	Chemical Engineering	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
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This is NOT an official evaluation.

Area : Major Coursework (47.000 credits) - Not Met

Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course Title	Attribute	Credits
No		A.	CHEN 204	3hrs									
No	AND	B.	CHEN 205	3hrs									

Must have a grade of 'C' or better.

No	AND	C.	CHEN 304 3hrs Must have a grade of 'C' or better.
No	AND	D.	CHEN 320 3hrs Must make a grade of 'C' or better.
No	AND	E.	CHEN 323 3hrs Must have a grade of 'C' or better.
No	AND	F.	CHEN 354 3hrs Must have a grade of 'C' or better.
No	AND	G.	CHEN 432 2hrs Must make a grade of 'C' or better.
No	AND	H.	CHEN 324 3hrs Must have a grade of 'C' or better.
No	AND	I.	CHEN 425 3hrs Must have a grade of 'C' or better.
No	AND	J.	CHEN 426 3hrs Must have a grade of 'C' or better.
No	AND	K.	CHEN 433 2hrs Must have a grade of 'C' or better.
No	AND	L.	CHEN 461 3hrs Must have a grade of 'C' or better.
No	AND	M.	CHEN 364 3hrs Must have a grade of 'C' or better.
No	AND	N.	CHEN 481 1hr Must make a grade of 'C' or better.
No	AND	O.	Process Safety Engr 3hrs Select from CHEN 455; SENG 455. Must make a grade of 'C' or better.
No	AND	P.	CHEN 322 3hrs Must make a grade of 'C' or better.
No	AND	Q.	CHEN 382 3hrs CHEN 482 Must make a grade of 'C' or better.

Total Credits and GPA 0.000

unofficial evaluation

Area : Supporting Coursework (32.000 credits) - Not Met

Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course Title	Attribute	Credits
No		A.	ENGR 102 2hrs										
No	AND	B.	ENGR 216 2hrs										
No	AND	C.	ENGR 217 2hrs										
No	AND	D.	CHEN Specialty Options 6hrs										
No	AND	E.	MATH 251 3hrs										
No	AND	F.	MATH 308 3hrs										

				Must make a grade of 'C' or better.
No	AND	G.	CHEM 227 3hrs	
				Must make a grade of 'C' or better.
No	AND	H.	CHEM 228 3hrs	
				Must make a grade of 'C' or better.
No	AND	I.	CHEM 237 1hr	
				Must make a grade of 'C' or better.
No	AND	J.	CHEM 238 1hr	
				Must make a grade of 'C' or better.
No	AND	K.	Science Elective 3hrs	
				Must make a grade of 'C' or better. See Advisor for approved courses
No	AND	L.	CHEM 322 3hrs	
				Must make a grade of 'C' or better.

Total Credits and GPA 0.000

unofficial evaluation

Area : Communication (6.000 credits) - Not Met

Met	Condition	Rule	Subject	Attribute	Low	High	Required	Required	Term	Subject	Course	Title	Attribute	Credits
					Credits	Credits	Courses	Courses						
No		A.	ENGL 104											
No	AND	B.	ENGL 210											

ENGL 103 or ENGL 104 <Must make a C or better>

Total Credits and GPA 0.000

unofficial evaluation

Area : Mathematics (8.000 credits) - Not Met

Met	Condition	Rule	Subject	Attribute	Low	High	Required	Required	Term	Subject	Course	Title	Attribute	Credits
					Credits	Credits	Courses	Courses						
No		A.	MATH 151											
No	AND	B.	MATH 152											

Must make a C or better

Must make a C or better

Select MATH 151

Select from MATH 152, 172.

Total Credits and GPA 0.000

unofficial evaluation

Area : Life and Physical Sciences (14.000 credits) - Not Met

Met	Condition	Rule	Subject	Attribute	Low	High	Required	Required	Term	Subject	Course	Title	Attribute	Credits
					Credits	Credits	Courses	Courses						
No		A.	CHEM 101 and 111 4hrs											
No	AND	B.	CHEM 102 and 112 4hrs											
No	AND	C.	PHYS 206 3hrs											
No	AND	D.	PHYS 207 3hrs											

New CHEM numbers for 201931

Requires C or Better

CHEM 119

CHEM 120

Total Credits and GPA 0.000

unofficial evaluation

removing ENGR482

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	
No	A.	ENGR 482	Language, Philosophy & Culture			3hrs							
												Total Credits and GPA	0.000

unofficial evaluation

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	
No	A.		Creative Arts Requirement			3hrs							
												Total Credits and GPA	0.000

unofficial evaluation

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	
No	A.		Social Science Rqmt			3hrs							
												Total Credits and GPA	0.000

unofficial evaluation

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	
No	A.		American History Rqmt			6hrs							
No	AND	B.	Political Science Rqmt			6hrs							
												Total Credits and GPA	

unofficial evaluation

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	
No	A.		Courses not applied										
												Total Credits and GPA	

unofficial evaluation

Area : High Impact Experience - Not Met

Met	Condition	Rule	Subject	Attribute	Low	High	Required	Required	Term	Subject	Course	Title	Attribute	Credits
							Credits	Courses						

No	A.		High-Impact Experience											
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One course required.
A list of possible high-impact experiences is available in the CHEN advising office.

Includes:

- CHEN 399
- Any course with the study abroad attribute [SABR]
- Any course with the research experience attribute [QRES] (e.g., CHEN 491)

Total Credits and GPA 0.000

unofficial evaluation

Area : University Writing Requirement - Not Met

Met	Condition	Rule	Subject	Attribute	Low	High	Required	Required	Term	Subject	Course	Title	Attribute	Credits
							Credits	Courses						

No	A.		Writing Requirement											
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Two courses required.
Only sections of CHEN 432; ENGR 482; PHIL 482 with the Writing attribute [UWRT] may be used to satisfy this requirement.

Total Credits and GPA 0.000

unofficial evaluation

Area : Int'l & Cult Diversity - Not Met

Met	Condition	Rule	Subject	Attribute	Low	High	Required	Required	Term	Subject	Course	Title	Attribute	Credits
							Credits	Courses						

No	A.		Int'l & Cultural Diversity 6hr											
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Select from courses with the International and Cultural Diversity attribute [UICD] (except sections of BUSN 289 with the UWRT attribute).

Total Credits and GPA 0.000

unofficial evaluation

Area : Foreign Language - Not Met

Met	Condition	Rule	Subject	Attribute	Low	High	Required	Required	Term	Subject	Course	Title	Attribute	Credits
							Credits	Courses						

No	A.		Foreign Language Rqmt											
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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

unofficial evaluation

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

Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course Title	Attribute	Credits
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No		A.	Residence-Major	12hrs									
No	AND	B.	Residence	300-499									

Total Credits and GPA

unofficial evaluation

Area : GPR-Major - Not Met

Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course Title	Attribute	Credits
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No		A.	Major GPR	36+hrs									

Total Credits and GPA 0.000

unofficial evaluation

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