

# Program Change Request

Date Submitted: 11/07/18 5:09 pm

Viewing: **MINOR-MSEN : Materials Science and Engineering - Minor**

Last approved: 04/30/18 11:44 am

Last edit: 11/12/18 8:56 am

Changes proposed by: jules.henry

Catalog Pages Using [Materials Science and Engineering - Minor](#)  
this Program

## In Workflow

1. MSEN 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. 11/07/18 11:31 pm  
Ibrahim Karaman (karaman): Approved for MSEN Department Head
2. 11/12/18 8:56 am  
Angel Mario Carrizales (carr1214): Approved for Curricular Services Review
3. 11/17/18 8:31 am  
Eileen Hoy (ehoy): Approved for EN Committee Preparer UG
4. 11/18/18 11:35 am  
Prasad Enjeti (enjeti): Approved for EN Committee Chair UG
5. 11/18/18 12:04 pm  
Prasad Enjeti (enjeti): Approved for EN College Dean UG
6. 11/19/18 8:29 am  
Sandra Williams (sandra-williams): Approved for UCC Preparer
7. 12/10/18 10:32 am  
Terra Bissett (t.bissett): Approved for UCC Chair

## History

1. Apr 30, 2018 by Sandra Williams (sandra-williams)

## Contact(s)

Name	E-mail	Phone
Jules Henry	jules.henry@tamu.edu	979-862-1089

Academic level Undergraduate  
 Effective Term 2019-2020  
 Department Materials Science & Engr  
 College Engineering  
 Program type Minor  
 With a minor in Materials Science & Engr (MSEN)  
 Associated Program **Not Applicable**

Catalog Program Title  
 Materials Science and Engineering - Minor

## Rationale for Proposal

**The proposed changes are part of a routine curriculum review.** ~~04.30.2018 — edits made to MSEN 310 and MSEN 460 which are now MSEN 260 and MSEN 325 effective Fall 2018. — sw~~

Program hours **15**

Is this program eligible for financial aid?

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

## Catalog Program Requirements

Course List

Code	Title	Semester Credit Hours
<b>Select at least two of the following:</b>		<b>6</b>
<del>MEEN 467</del>	<del>Mechanical Behavior of Materials</del>	
<del>MSEN 260</del>	<del>Structure of Materials</del>	
<del>MSEN 325</del>	<del>Properties of Functional Materials</del>	
<del>MSEN 420</del>	<del>Polymer Science</del>	
<b>Select up to three of the following: 1, 2</b>		<b>9</b>
<u>MSEN 210</u>	Thermodynamics of Materials	<b>3</b>
or <u>MSEN 260</u>	or Structure of Materials	
<u>MSEN 200-499 1</u>		<b>6</b>
<b>Select two of the following: 2</b>		<b>6</b>
<u>MSEN 200-499 3,4</u>		
<u>AERO 406</u>	Polymer Nanocomposites and their Applications 2	
<u>BAEN 354</u>	Engineering Properties of Biological Materials 2	
<u>BAEN 427</u>	Engineering Aspects of Packaging 2	
<u>BMEN 344</u>	Biological Responses to Medical Devices 2	
<u>BMEN 482</u>	Polymeric Biomaterials 2	
<u>BMEN 483</u>	Polymeric Biomaterial Synthesis 2	
<u>CHEM 466</u>	Polymer Chemistry 2	
<u>CHEM 468</u>	Materials Chemistry of Inorganic Materials 2	
<u>CHEN 451</u>	Introduction to Polymer Engineering 2	
<u>CHEN 475</u>	Microelectronics Process Engineering 2	
<u>CVEN 342</u>	Materials of Construction 2	
<u>CVEN 343</u>	Portland Cement Concrete Materials for Civil Engineers 2	
<u>CVEN 417</u>	Bituminous Materials 2	
<u>ECEN 370</u>	Electronic Properties of Materials 2	
<u>ECEN 440</u>	Thin Film Technology and Device Application 2	
<u>MEEN 360</u>	Materials and Manufacturing Selection in Design 2	
<u>MEEN 455</u>	Engineering with Plastics 2	
<u>MEEN 458</u>	Processing and Characterization of Polymers 2	
<u>MEEN 460</u>	Corrosion Engineering 2	
<u>MEEN 471</u>	Elements of Composite Materials 2	
<del>MSEN 410</del>	<del>Materials Processing</del>	
<del>MSEN 489</del>	<del>Special Topics In....(Fundamentals of Ceramics)</del>	
<del>MSEN 489</del>	<del>Special Topics In....(Fundamentals of Corrosion)</del>	
<del>MSEN 489</del>	<del>Special Topics In....(Nanoscience and Nanomaterials)</del>	
<del>MSEN 491</del>	<del>Research</del>	
<u>MEEN 475</u>	Materials in Design 2	
<u>MMET 207</u>	Metallic Materials 2	
<u>MMET 313</u>	Industrial Welding Processes 2	
<u>NUEN 465</u>	Nuclear Materials Engineering 2	
<u>PHYS 416</u>	Physics of the Solid State 2	
Total Semester Credit Hours		15

1 Except MSEN 205, MSEN 281, MSEN 301, MSEN 302, MSEN 380, MSEN 400, MSEN 401, MSEN 402, MSEN 485, MSEN 491.

2 Up to 2 of these electives (6 credits total) could consist of "Materials-focused course(s)" within the student's home major.

3 Except MSEN 205, MSEN 281, MSEN 301, MSEN 302, MSEN 380, MSEN 400, MSEN 401, MSEN 402.

4 Maximum of 3 credits of MSEN 485 or MSEN 491

Students must make a grade of "C" or better in all courses.

Student must achieve an overall GPA of 2.5 in approved minor courses.

Additional information ~~04-30-2018 — edits made to MSEN 310 and MSEN 460 which are now MSEN 260 and MSEN 325 effective Fall 2018. —sw~~

Required Proposal Forms [2019 MSEN Minor Degree Evaluation Adjustments.pdf](#)

Reviewer Comments Angel Mario Carrizales (carri1214) (11/12/18 8:55 am): Edits made to conform to catalog style guidelines.  
Terra Bissett (t.bissett) (12/10/18 10:31 am): UCC approved December 2018.

No A. Social Science Rqmt 3hrs

Select from courses with the Social and Behavioral Science attribute [KSOC].

Total Credits and GPA 0.000 .00

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	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

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	Grade	Source
-----	-----------	------	---------	-----------	-----	------	------------------	------------------	------	---------	--------------	-----------	---------	-------	--------

No	A.		Courses not applied												
----	----	--	---------------------	--	--	--	--	--	--	--	--	--	--	--	--

Total Credits and GPA 0.000 .00

unofficial evaluation

**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
-----	-----------	------	---------	-----------	-----	------	------------------	------------------	------	---------	--------------	-----------	---------	-------	--------

No	A.		High-Impact Experience												

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

Includes:

- MSEN 399
- MSEN 484
- MSEN 491

Total Credits and GPA 0.000 .00

unofficial evaluation

**Area :** Materials Science & Engr Minor ( 15.000 credits ) - Not Met

**Description :** Minimum of 6 hours at 300-400 level.  
Obtain a "C" or better in each course taken towards minor.  
Achieve an overall GPR of 2.5 in approved minor coursework.  
Upon consultation with the materials science faculty advisor, up to two upper-level technical electives in the student's major department may be accepted in the technical electives courses.

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

No	A.		Minor Rqmt <del>6 hours</del> 3 hours												

Select one from MSEN 210, MSEN 260.

Select two from MEEN 467, MSEN 310, 420, 460, 625.

No	AND	B.	Minor Rqmt II <del>9 hours</del> 6 hours												

Select from MSEN 200-499 except for MSEN 205, MSEN 281, MSEN 301, MSEN 302, MSEN 380, MSEN 400, MSEN 401, MSEN 402, MSEN 485, and MSEN 491.

Select from MEEN 458, 471; MSEN 410, 458, 489, 491, 618, 650.

Total Credits and GPA 0.000 .00

C. Minor Rqmt III 6 hours Select from MSEN 200 - 499 except for MSEN 205, MSEN 281, MSEN 301, MSEN 302, MSEN 380, MSEN 400, MSEN 401, and MSEN 402; AERO 406; BAEN 354, BAEN 427; BMEN 344, BMEN 482, BMEN 483; CHEM 466, CHEM 468; CHEN 451, CHEN 475; CVEN 342, CVEN 343, CVEN 417; ECEN 370, ECEN 440; MEEN 360, MEEN 455, MEEN 458, MEEN 460, MEEN 471, MEEN 475; NUEN 465; MMET 207, MMET 313; PHYS 416.