

## UNDERGRADUATE CURRICULUM CHANGE MEMO

**Date:** December 24, 2021

**From:** Peter Golding, UG Program Director, Dept of Eng Education & Leadership

**Through:** Roger Gonzalez, Chair of the Dept of Engineering Education & Leadership

**Through:** Virgilio Gonzalez, Chair of Curriculum Committee, College of Engineering

**Through:** Louis Everett, Associate Dean for Academic Affairs and Undergraduate Studies, College of Engineering

**Through:** Patricia Nava, Interim Dean, College of Engineering

**To:** Andrew Fleck, Chair of University Curriculum Committee

**Proposal Title:** Changes to BS-EIL Course Requisites and Catalog

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The Department of Engineering Education and Leadership proposes minor and simple curriculum changes to the B.S. in Engineering Innovation and Leadership degree plan.

These changes encompass minor modification to pre-reqs and co-reqs for two existing EL courses and simply updating the BS-EIL Computer Science concentration (specifically, removing a separate math requirement, adding 3 credit-hours of CS and removing the same number (3 credit-hours) of Emphasis course, so there is no net change in total credit-hours).

These changes provided improvements consistent with meeting the intended student outcomes for the degree.

The changes are also consistent with our ABET-accreditation achieved in the recent College of Engineering- review cycle.

The proposed changes are seen summarized in the attached documents highlighting the changes between the 2020 and (next) 2021 catalog.

The requested changes to the catalog for the BS-EIL 2022-23 degree plan, are proposals to:

1. Change the pre-requisites for EL 1402 *Engineering Innovation & Leadership* from EL 1301 to EL 1301 AND MATH 1408 BOTH w/C or better. See course change form 1 attached.

2. Change the pre-requisite for EL 2301 from EL 1402 to EL 1402 AND MATH 1411 both w/C or better + corequisite CS 1320 (for CS concentration CS 2101 and CS 2202). See course change form 2 attached.

3. Modifying the CS Concentration as follows:

- Foundation Math/Science – remove “(CS Concentration take MATH 2300)” next to Calculus III
- Computer Science Concentration Courses – add CS 2101 Discrete Structures I (1 hour) and CS 2202 Discrete Structures II (2 hours), and
- Emphasis Courses – remove “A student must take three (3) credit hours of emphasis courses approved by the department.” See Catalog Change (Word Doc with track changes) 3 attached.

These changes are supported unanimously by the faculty and we believe they will again improve the success of the students in our innovative programs.

# CURRICULUM CHANGE PROPOSAL

## APPROVAL PAGE

Proposal Title: Changes to BS-EIL Course Requisites and Catalog

College: Engineering

Department: Engineering Education and Leadership

### DEPARTMENT CHAIR

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I have read the enclosed proposal and approve this proposal on behalf of the department.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

### COLLEGE CURRICULUM COMMITTEE CHAIR

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I have read the enclosed documents and approve the proposal on behalf of the college curriculum committee.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

### COLLEGE DEAN

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I have read the enclosed documents and approve the proposal on behalf of the college. I certify that the necessary funds will be allocated by the college in support of this proposal.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

**From:** [Granda, Virginia D](#)  
**To:** [Rivera, Julie A](#)  
**Subject:** FW: UG Proposals Approved by our COECC  
**Date:** Tuesday, January 25, 2022 10:40:35 AM  
**Attachments:** [image001.png](#)  
[AEME--Changes to BSME and BS-AEAE Proposal.pdf](#)  
[BSCEM Undergraduate Curriculum Change \(revised\).pdf](#)  
[EEL--Changes to the BS-EIL-Course-Prerequisites-and-Catalog.pdf](#)  
[MMBME Course Changes.pdf](#)  
[ECE RA Minor Proposal - Revised.pdf](#)  
[image004.png](#)

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Good morning Julie,

Attached are the approved UG proposals from our college.

Have a great week,

Virginia



**Virginia Granda-Becker**  
Coordinator for Undergraduate Studies  
and Academic Affairs

Engineering Edge Center  
ENGR E-201B  
The University of Texas at El Paso  
500 WW. University Ave.  
El Paso, TX 79968  
Office: 915-747-8011  
[www.utep.edu/engineering/eec](http://www.utep.edu/engineering/eec)

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**From:** Nava, Patricia A.  
**Sent:** Tuesday, January 25, 2022 10:29 AM  
**To:** Granda, Virginia D <[granda@utep.edu](mailto:granda@utep.edu)>  
**Subject:** RE: Updated Memo

All of the actions are approved.

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**From:** Granda, Virginia D  
**Sent:** Tuesday, January 25, 2022 8:52 AM  
**To:** Nava, Patricia A. <[pnav@utep.edu](mailto:pnav@utep.edu)>  
**Subject:** Updated Memo

Dr. Nava,

Per your request, attached is the modified memo from AEME.

Best Regards,

Virginia



**Virginia Granda-Becker**  
Coordinator for Undergraduate Studies  
and Academic Affairs

Engineering Edge Center  
ENGR E-201B  
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500 WW. University Ave.  
El Paso, TX 79968  
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[www.utep.edu/engineering/eec](http://www.utep.edu/engineering/eec)

Good afternoon Dr. Nava,

Attached are the UG Proposals that have been approved.

Please reply letting me know if you approve them.

Best Regards,

Virginia



**Virginia Granda-Becker**  
Coordinator for Undergraduate Studies and Academic Affairs

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The University of Texas at El Paso  
500 W. University Ave  
El Paso, TX 79968  
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[www.utep.edu/engineering/eec](http://www.utep.edu/engineering/eec)

**From:** Everett, Louis

**Sent:** Monday, January 10, 2022 9:35 AM

**To:** Granda, Virginia D <[granda@utep.edu](mailto:granda@utep.edu)>

**Subject:** Re: UG Proposals Approved by our COECC

I approve

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**From:** Granda, Virginia D <[granda@utep.edu](mailto:granda@utep.edu)>

**Sent:** Monday, January 10, 2022 9:00:58 AM

**To:** Everett, Louis <[leverett@utep.edu](mailto:leverett@utep.edu)>

**Subject:** FW: UG Proposals Approved by our COECC

Good morning Dr. Everett,

Attached are the UG proposals that have been approved by the COECC and its chair.

Please reply letting me know if you approve them.

Best Regards,

Virginia



**Virginia Granda-Becker**  
Coordinator for Undergraduate Studies and Academic Affairs  
  
College of Engineering  
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**From:** Gonzalez, Virgilio

**Sent:** Friday, January 7, 2022 5:04 PM

**To:** Granda, Virginia D <[granda@utep.edu](mailto:granda@utep.edu)>

**Subject:** RE: UG Proposals Approved by our COECC

Virginia,

I approve the proposals reviewed in today's CoECC meeting.

Thank you

Virgilio Gonzalez  
[vgonzalez3@utep.edu](mailto:vgonzalez3@utep.edu)

**From:** Granda, Virginia D <[granda@utep.edu](mailto:granda@utep.edu)>

**Sent:** Friday, January 7, 2022 16:28

**To:** Gonzalez, Virgilio <[vgonzalez3@utep.edu](mailto:vgonzalez3@utep.edu)>

**Subject:** UG Proposals Approved by our COECC

Good afternoon Dr. Gonzalez,

Attached are the undergraduate proposals that were approved by our COECC today.

Can you please reply to this email if you approve the proposals?

Best Regards,

Virginia



**Virginia Granda-Becker**

Coordinator for Undergraduate Studies and Academic Affairs

College of Engineering  
The University of Texas at El Paso  
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# COURSE CHANGE FORM

COPY OF CATALOG PAGE NOT REQUIRED

All fields below are required

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College : Engineering

Department : EEL

Effective Term : Fa 2022

Rationale for changing the course:

Update of Pre-Requisites in course to align content and improve EL first-year sequence success

All fields below are required

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Subject Prefix and number EL 1402

Course Title Engineering Innovation and Leadership

Change	From	To
Pre-Req	EL 1301 w/C or better	EL 1301 and MATH 1508 both w/C or better

These changes will be reflected in Banner, Goldmine, and the catalog



# COURSE CHANGE FORM

COPY OF CATALOG PAGE NOT REQUIRED

All fields below are required

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College : Eng

Department : EEL

Effective Term : Fa 2022

Rationale for changing the course:

Update of Pre-Requisites to Align Content and Improve Student Success

All fields below are required

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Subject Prefix and number EL 2301

Course Title Modeling and Simulation

Change	From	To
Pre-Req	EL 1402	EL 1402 and MATH 1411
Co-Req	None	CS 1320 (for CS concentration) CS 2101 and CS 2202

These changes will be reflected in Banner, Goldmine, and the catalog

The content below is the current Foundation Math and CS concentration courses, from: <http://catalog.utep.edu/undergrad/college-of-engineering/engineering-education-leadership/engineering-innovation-leadership-bs/>

Foundation Math/Science		
Required:		
<a href="#">CHEM 1305</a>	General Chemistry	3
<a href="#">MATH 1312</a>	Calculus II	3
<a href="#">MATH 1411</a>	Calculus I	4
<a href="#">MATH 2313</a>	Calculus III <del>(CS Concentration take MATH 2300)</del>	3
<a href="#">MATH 2326</a>	Differential Equations	3
<a href="#">MATH 3323</a>	Matrix Algebra	3
or BME Sequence must take upper-division BIOL, CHEM, CBCH course from approved BME minor list		

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## Computer Science

Code	Title	Hours
<b>Computer Science Concentration Courses</b>		
<a href="#">CS 1101</a>	Intro to Computer Science Lab	1
<a href="#">CS 1301</a>	Intro to Computer Science	3
<del><a href="#">CS 2101</a></del>	<del>Discrete Structures I</del>	<del>1</del>
<del><a href="#">CS 2202</a></del>	<del>Discrete Structures II</del>	<del>2</del>
<a href="#">CS 2302</a>	Data Structures	3
<a href="#">CS 2401</a>	Elem. Data Struct./Algorithms	4
<a href="#">EL 4171</a>	Eng Ed and Lead Problems	1
Course List		

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### ~~Emphasis Courses~~

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~~A student must take three (3) credit hours of emphasis courses approved by the department.~~

~~3~~

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