




CEE Curriculum Workshop

February 13, 2023

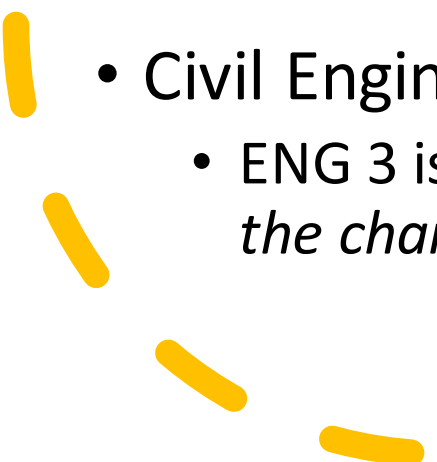



Flow

- Major Curriculum Changes
 - Minor Curriculum Changes
 - Planning for your future courses
 - Common questions & action items
 - **Ask questions at anytime!**
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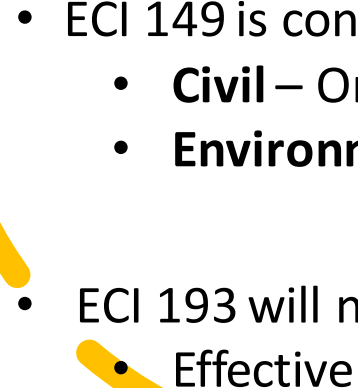


Recent Curriculum Changes

- Environmental Engineering Major
 - ENG 3 is required
 - BIS 2A is required
 - MIC 102 is required (if you will be graduating by spring 2024, you do not need MIC 102)
 - Civil Engineering Major
 - ENG 3 is required (CMN1 and CMN 3 no longer count *unless you took before the change in requirement*)
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Important Changes to Courses in the Major

- ECI 179 is transitioning to two courses
 - ECI 178: Pavement Engineering & Design
 - ECI 179: Pavement Management, Evaluation, & Rehabilitation
 - If you take ECI 179 this year, you cannot take 178 next year. You can take ECI 189 course that will be similar to the new 179.
 - It has **not** been decided if these will count for depth courses in Geotech or Transportation (stay tuned)
 - ECI 149 is converting to a 5-unit course (starting Winter 2024)
 - **Civil** – Only need to take the course, but can take lab for elective units
 - **Environmental** – required to take the course and the lab section
 - ECI 193 will no longer count as a WE literacy
 - Effective in Winter 2024
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Important Changes to Courses in the Major

- ECI 40 (likely effective in fall 2023)
 - Will NO longer count as an AH GE
 - Will count as a SS GE
- ECI 140D – in process of a number change
 - ECI 140C has been discontinued
 - ECI 140D will become ECI 140CN
- Scheduling
 - ECI 140B and ECI 149 will be in the winter (different from this year)
- New Courses
 - ECI 181: Construction Cost Estimation
 - ECI 182: Buildings: Assemblage & Construction Quality Management

ECI 193 Requirements

- Environmental Section – ECI 140D
 - Geotechnical Section – ECI 171/171L
 - Structures – Two of the following: ECI 132, ECI 134, ECI 135
 - Transportation – ECI 161 (recommended) or ECI 163
 - Water – ECI 141/141L
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- Need C- or higher for all prerequisites

Spring 2023 Courses

ECI 189: PAVEMENT MANAGEMENT, EVALUATION, & REHABILITATION

Engineering concepts and practices to evaluate, preserve, maintain and rehabilitate highway pavements, focusing on pavement asset management, pavement failure mechanisms, site investigation for rehabilitation design, flexible and rigid pavement preservation and maintenance, flexible & rigid overlays, economic analysis of rehabilitation alternatives and selection of the most suitable strategy.

CRN: 39389

INSTRUCTOR: SOMAYEH NASSIRI
4 UNITS



ECI 189C: CONSTRUCTION SEMINAR

This one-unit seminar series is open to undergraduate and graduate students interested in all aspects of project delivery, i.e. construction, of all types of civil and mechanical engineering infrastructure. The class will consist of weekly lectures by industry and government leaders, followed by discussion. Students are welcome who do not want to take the class for credit but who would like to attend the lectures and discussion (audit the course). Contact John Harvey and John Bolander to get on the email list.

CRN: 62892

INSTRUCTOR: ROTATING SPEAKERS FROM INDUSTRY
1 UNIT

ECI 189G: TRANSPORTATION DESIGN

Basic principles of multi-modal transportation design; horizontal and vertical alignment of roadways; intersection geometry; multi-modal cross-section and curbside design; systemic safety of roadways.

****COUNTS AS TRANSPORT BREADTH/DEPTH!!**

CRN: 62964

INSTRUCTOR: KARI WATKINS
PHY 9A, MAT 21C WITH C- OR BETTER. ECI 161 RECOMMENDED
4 UNITS



Minors

- General Notes
 - Rarely will we allow course substitutions because already a lot of overlap
- Construction Engineering Management Minor – Being updated
 - You may follow the old or proposed minor until Fall 2024 when new minor is official
 - New courses are allowed in the proposed minor
- Overview of Minors
 - Pay attention to prerequisites as they may require you take additional courses; you can also email professors



Course Planning

- New Planning Tools
 - <https://cee.engineering.ucdavis.edu/course-planning-tools>
- **Tentative** course calendar for planning courses
 - Need to check frequently as changes do occur
- GE Planning

Environmental Engineering Example Curriculum

First Two Years

	Fall	Units	Winter	Units	Spring	Units
First-year	MAT 21A ECI 3 CHE 2A	4 4 5 13	MAT 21B CHE 2B Lower-Div Composition GE #1	4 5 4 4 17	MAT21C CHE 8A PHY 9A GE #2	4 2 5 4 15
Sophomore	MAT21D PHY 9B ECI 40 ENG 6/ECS 32A	4 5 4 4 17	MAT 22A /22AL BIS 2A ECI 16 GE #3	3/1 5 2 4 14 or 15	MAT 22B ENG 3 ENG 35 GE #4	3 4 4 4 15

** ECI 40 no longer counts as an AH, counts as a SS

Junior/Senior Years

	Fall	Units	Winter	Units	Spring	Units
Junior	ECI 140A ECI 100 MIC 102 Unrestricted Elective	4 4 3 4 15	ECI 140B ENG 106 ECI 114 Unrestricted Elective	4 4 4 4 12	ECI 140CN (old 140D) ECI 123 ECI 141/141L	4 4 4 12
Senior	Upper-Div Eng Composition ECI 115 GEL 50-50L/ATM 60 Env. Eng Elective	4 4 5 or 4 4 16-17	ECI 193A (Env) ECI 149/149L ECI 144 Unrestricted Elective	4 4/1 4 3-5 16-18	ECI 193 (Env) ECI 153 Unrestricted Elective	4 4 4 12

Transfer Students (incoming fall 2023)

	Fall	Units	Winter	Units	Spring	Units
Junior	ECI 40 ECI 140A ECI 100 ECI 189C/ECI 101	4 4 4 4 16	ECI 140B ENG 106 MIC 102 ECI 16	4 4 3 2 13	ECI 140CN (old 140D) ECI 114 ENG 3 ECI 141/141L	4 4 3 4 15
Senior	Upper-Div Eng Composition ECI 115 Env. Eng Elective ATM 60 or GEL 50/50L*	4 4 4 4-5 16-17	ECI 193A (Env) ECI 149/149L ECI 144	4 4/1 4 13	ECI 193 (Env) ECI 123 ECI 153	4 4 4 12

- Assuming BIS2A equivalent taken at previous institution and GE's already completed
- Assuming ATM 60 or GEL 50/50L not taken at previous institution
- Need to have 180 units total

GEs

For those who have **not** taken ECI 40 by Fall 2022

- Need 12 units of A&H (Topical Breadth)
- Literacies needed
 - World Cultures (3 units)
 - Domestic Diversity (3 units)
 - American Cultures, Governance and History (3 units)
 - Writing Experience (6 units)
- ECI 123 can count for 4 units of WE or DD or ACGH
- Need at least 4 GE courses total if you strategically take courses that meet a literacy and a topical breadth

GEs for those who have taken ECI 40 by Fall 2022

- Topical Breadth needed
 - 8 units of AH
 - 4 units of SS or AH
- Literacies needed
 - World Cultures (3 units)
 - Domestic Diversity (3 units)
 - American Cultures, Governance and History (3 units)
 - Writing Experience (6 units)
 - **If take ECI 193 in 2023, it counts for 4 units of WE. After 2023, it will only count for 4 units of oral literacy**
- ECI 123 can count for 4 units of WE or DD or ACGH
- Need at least 4 GE courses total if you strategically take courses that meet a literacy and a topical breadth

Civil Engineering Example Curriculum

First Two Years (All – No Env. Depth)

	Fall	Units	Winter	Units	Spring	Units
First-year	MAT 21A ECI 3 CHE 2A 13	4 4 5 13	MAT 21B CHE 2B Lower-Div Composition	4 5 4 13	MAT21C PHY 9A ENG 3 GE #1 17	4 5 4 4 17
Sophomore	MAT21D PHY 9B ENG 6/ECS 32A GE #2 17	4 5 4 4 17	MAT 22A/22AL PHY 9C ECI 16 GE #3	3+1 5 2 4 14+1	MAT 22B ENG 35 GEL 50-50L/BIS 2A GE #4 16	3 4 5 4 16

First Two Years (All – Depth in Env.)

	Fall	Units	Winter	Units	Spring	Units
First-year	MAT 21A ECI 3 CHE 2A	4 4 5 13	MAT 21B CHE 2B Lower-Div Composition GE#1	4 5 4 4 17	MAT21C PHY 9A ENG 3 GE #2	4 5 4 4 17
Sophomore	MAT21D PHY 9B ENG 6/ECS 32A ECI 40	4 5 4 4 17	MAT 22A/22AL PHY 9C ECI 16 GE #3	3+1 5 2 4 14+1	MAT 22B ENG 35 GEL 50-50L/BIS 2A GE #4	3 4 5 4 16

Need 4 less unrestricted units in upper-division courses

Junior/Senior (Undecided)

	Fall	Units	Winter	Units	Spring	Units
Junior	ECI 100 ENG 104 ECI Breadth Upper-Div. Eng Composition	4 4 4 4 16	ENG 106 ECI Breadth ECI Depth	4 4/1 4 13	ENG 104L ECI Depth ECI Elective ENG 102 or ENG 105 GE #5	1 4 4 4 4 17
Senior	ECI Depth Math. Ana. Elective ECI Elective ECI Breath	4 4 4 4 16	ECI 193A ECI 114 ECI Elective ECI Breath	4 4 4 4 16	ECI 193B ECI Elective ECI Depth	4 4 4 12

GEs

- Topical Breadth (can earn some SS with ECI requirements)
 - 12 units of AH
 - 8 units of SS or AH
- Literacies needed
 - World Cultures (3 units)
 - Domestic Diversity (3 units)
 - American Cultures, Governance and History (3 units)
 - Writing Experience (6 units)
- ECI 123 can count for 4 units of WE or DD or ACGH; counts as a SS
- Need at least 4 GE courses total if you strategically take courses that meet a literacy and a topical breadth

Double Major Example Curriculum

First Two Years (Double Major)

	Fall	Units	Winter	Units	Spring	Units
First-year	MAT 21A ECI 3 CHE 2A	4 4 5 13	MAT 21B CHE 2B Lower-Div Composition GE#1	4 5 4 4 17	MAT21C PHY 9A ENG 3 CHE 8A	4 5 4 2 15
Sophomore	MAT21D PHY 9B ENG 6/ECS 32A ECI 40	4 5 4 4 17	MAT 22A/22AL PHY 9C ECI 16 GE #2	3+1 5 2 4 14+1	MAT 22B ENG 35 BIS 2A GE #3	3 4 5 4 16

Junior/Senior Years (Environmental/Water)

	Fall	Units	Winter	Units	Spring	Units
Junior	ECI 100 ECI 140A (Breadth) MIC 102 ENG 104 15	4 4 3 4 15	ENG 106 ECI Elective ECI 140B ECI 115 T/G/S Breath Course 20	4 4 4 4 4 20	ENG 104L ECI 141/141L ECI 140CN (ECI 140D) ECI 114 13	1 4 4 4 13
Senior	Water Depth Upper-Div Eng Composition T/G/S Breath Course ENG 102 or 105 GE #4 20	4 4 4 4 4 20	ECI 193A ECI 144 ECI 149/149L Env. Eng. Elective 17	4 4 5 4 17	ECI 193B ECI 123 ECI 153 GEL 50-50L 17	4 4 4 5 17

Transfer Students (Environmental/Water)*

*One summer session is highly recommended; Assume BIS 2A and GEL 50/50L taken at community college

	Fall	Units	Winter	Units	Spring	Units
Junior	ECI 40 ECI 100 ECI 189C/ECI 101 ECI 140A 16	4 4 4 4 16	ENG 106 ECI Elective ECI 16 ECI 140B ENG 104	4 4 2 4 4 18	ENG 3 ECI 141/141L ECI 140CN (140D) S/G/T Breadth MIC 102 19	4 4 4 4 3 19
Senior	Upper-Div Eng Composition Water Depth S/G/T Breadth Env. Eng. Elective ENG 102 or 105 20	4 4 4 4 4 20	ECI 193A ECI 144 ECI 115 ECI 149/149L ENG 104L	4 4 4 5 1 18	ECI 193 B ECI 123 ECI 153 ECI 114 16	4 4 4 4 16

GEs

For those who have **not** taken ECI 40 by Fall 2022

- Need 12 units of AH (Topical Breadth)
- Literacies needed
 - World Cultures (3 units)
 - Domestic Diversity (3 units)
 - American Cultures, Governance and History (3 units)
 - Writing Experience (6 units)
- ECI 123 can count for 4 units of WE or DD or ACGH
- Need at least 4 GE courses total if you strategically take courses that meet a literacy and a topical breadth

GEs for those who have taken ECI 40 by Fall 2022

- Topical Breadth needed
 - 8 units of AH
 - 4 units of SS or AH
- Literacies needed
 - World Cultures (3 units)
 - Domestic Diversity (3 units)
 - American Cultures, Governance and History (3 units)
 - Writing Experience (6 units)
 - **If take ECI 193 in 2023, it counts for 4 units of WE. After 2023, it will only count for 4 units of oral literacy**
- ECI 123 can count for 4 units of WE or DD or ACGH
- Need at least 4 GE courses total if you strategically take courses that meet a literacy and a topical breadth

Additional Curriculum Map Examples

Common Questions

- Should I do Environmental, Civil or Double Major?
- What should I do if I am planning to study abroad or take classes outside of UC Davis?
- What do I do if I fail a course?
- What are my options for summer courses?
 - ENG 35, ENG 104, and ECI 114 – most years
 - General education courses

Other reminders

- Tentative course schedule is dynamic
- Course substitutions should be approved before you take the course
- Don't need an appointment to get advice
- Take advantage of peer advising with Carlos

Action Items

- Develop Your Own Curriculum Map
 - From now until graduation
 - Identify all your GE literacies and how to maximize those GEs (e.g. ECI 123)
 - Check the schedule of courses at least once per quarter and update your plan
- If something changes, double check your curriculum plan with Rachel and Emma
 - Simple checks can be done through email
- Don't assume credit will be given for non-CEE courses, get approved first

Questions

