University of New Hampshire For Students Entering the Program August 2023 and Later

First Year Sophomore Year Junior Year Senior Year See Advising Note 10 See Advising Note 10 See Advising Note 5 CFF 400 CFF 500 CFF 501 CFF 635\* CFF 620\* CFF 797 L CFF 798\* = in progress Str of Matls Intro P P & Dsan Proi Plan & Dson ETS/INQ. Intro Civil Statics **Engr Matts** Environ Ena = done 4 3 2 3 2 See Advising Notes 16 & 17 See Advising Note 11 ✓ CEE CEE 402 CEE 505 CEE 650\* CEE 665 CEE **CEE 502** Area Elective 3 Spatial Metrics Elec Fluid Mech Soil Mech Project Dsgn Elec 2D CAD Project Eng Intro Sust Engr 3 3 3 4 4 ENGL 401\* CEE 680 CEE 520\* CEE CEE **Environ P&P** WS, 1st Yr Wrtng Struct Analysis Area Elective 2 Area Elective 4 4 4 3 See Advising Note 2 See Advising Note 6 To begin CEE 600-level courses: Sem: Cr Grade PHYS 407 1. all double- boxed courses must be complete CHEM 405 **PHYS 408** CFF CFF 2. GPA ≥ 2.00 in CEE 500 and CEE 501 PS, Physics 1 Physics 2 Chemistry Elective Elective F23, J24, 3. GPA ≥ 2.00 in CEE courses S24, Su24 4 4 4. GPA ≥ 2.00 in double-boxed courses CEE and STE See Advising Note 12 See Advising Note 15 electives may be MATH 418 L MATH 425 MATH 426 MATH 527 STE MATH taken in any order. QR. Calculus 1 Statistics Elective A&A of Functions Calculus 2 Diff Ea & Lin Ala Take caution with prerequisites. 4 See Advising Note 13 See Advising Note 14 To Graduate: This is the recommended ≥ 128 cr. See Note 18 order. Choose carefully HUMA. Humanities HP. Hist Persp SS. Social Sci WC. World Cult BS. Biological Sci FPA. Fine/Perf Art Overall GPA: ≥ 2.00 when pursuing cognates. 4 4 4 4 4 CEE course GPA: ≥ 2.00 minors, and dual majors. These blank boxes to be used for extra courses and courses required for minors or dual majors. Student: Continuous line = prerequisite, dashed line = pre- or corequisite, \* = "writing-intensive" (see Advising Note 9), solid corner triangle = critical path BSCIVE/IA Dual Major BSCIVE/Sustain. Dual Major Architecture Studies Minor International Affairs Minor Other Cognates, Minors, or Dual Majors ☐ ARTS 532 (FPA)  $(\geq C \text{ in all, GPA} \geq 2.5)$  $(\ge C \text{ in IA 401, GPA} \ge 2.5)$ □ SUST 401 □ 501 □ 750 □ NBS Elec\*: \_ ☐ Language through 504 ☐ ARTH 474 (HP) ☐ Language through 402 ☐ Course 1: ☐ Course 1: ☐ ARTS 455, 525, or 567 ☐ IA 401 □ IA 401 □ IA 501 □ IA 701 ☐ SSH Elec\*: ☐ Course 2: ☐ Course 2: ☐ Elective 1: CEE 402 ☐ ECON401/402/EREC411(SS) □ ECON401/402/EREC 411(SS) ☐ Elective 3: CEE 520 ☐ Course 3: \_\_\_\_\_ ☐ Course 3: ☐ Elective 4†: ☐ Elective 2\*: □ PCH Elective\*: □ PCH Elective\*: ☐ Course 4: ☐ Course 4: ☐ SEEH Elective: CEE 520 ☐ SEEH Elective: <u>CEE 520</u> \*CEE 700 or 719 ☐ Elective 5: ☐ Course 5: ☐ Course 5:  $\square \ge 3$  weeks or 4 cr abroad ☐ 3rd Elective\*: \*Select BS, HUMA, HP, or WC Arch. Studies + Art Minor ☐ Course 6: ☐ Course 6: \*Select HUMA, FPA, HP or WC □ ≥ 8 weeks abroad before IA 701 †CEE 705, 706, or 719 ☐ Add. Art Elec 4: ☐ Course 7: ☐ Course 7: \*Select HUMA, FPA, or HP ☐ Add. Art Elec 5: ☐ Course 8: ☐ Course 8:

The CEE Department encourages you to explore cognates, minors, and dual majors. Listed here are common choices, but there are 6 cognates, 6 dual majors, and dozens of minors to consider. You may pursue multiple cognates, minors, and dual majors. Cognates require 12 cr. minors: 20 cr. dual majors: 32 cr. No more than 8 cr of specified courses can be double-counted. Unspecified Discovery electives used for cognates, minors, and dual majors are not considered as double-counted. There is no limit on overlapping credits allowed between minors. This color = Discovery elective. This color = double-counted course. Black = additional course.

#### ADVISING NOTES

## Notes for Incoming Students and about Transfer Credit

- 1. AP Courses:
  - a. AP Calc—AB 4,5=MATH 425. BC 3=MATH 425. BC 4,5=MATH 425 & 426.
  - b. AP Chemistry—3=CHEM 403 (still need 404 or 405). 4,5=CHEM 403 & 404.
  - c. AP Environmental Science—You receive credit for NR 435 but still need to take CEE 520.
  - d. AP Physics—Physics1&2:no help. PhysicsC, Mech: 3,4,5=PHYS 407. PhysicsC, E&M: 3,4,5=PHYS 408.
  - e. AP Statistics—Does not count for Statistics Elective as is not calculus-based.
- 2. MATH 425—If you can take MATH 425 in the 1st semester, try to take PHYS 407 in the 1st semester, too.
- 3. International Affairs Dual Major—If starting a new language, begin immediately. Otherwise, seek placement.
- 4. Transfer Students—To transfer into the BSCIVE program, you must meet the following requirements:
  - a. be a CEPS major or have ≥12 cr of graded work at UNH, Calculus I, and either chemistry or calculus-based physics with 4-year program grades of C or better or community college grades of B or better;
  - b. have a GPA  $\geq$  2.33 overall;
  - c. have a GPA ≥ 2.33 in CEE courses taken to date:
  - d. have a GPA ≥ 2.33 in MATH 425, PHYS 407, CHEM 405, CEE 500, and CEE 501 taken to date; and
  - e. have a GPA ≥ 2.33 in CEE 500 & CEE 501 or, if only one has been taken, a grade of C+ in the course.
  - Only CEE 600- and 700-level courses with a grade of C- or better may be transferred in.

# **Notes for Ongoing Students**

- CEE 400 and Advanced Students—If you achieve junior-level status without CEE 400, petition to take a different course such
  as a MATH 500-level or some other CEPS 600-level course. However, be careful to check that you have the Discovery Inquiry
  and ETS requirements fulfilled some other way.
- 6. CHEM 403/404 vs. CHEM 405—You may take both CHEM 403 and CHEM 404 instead of CHEM 405 though this adds a course. If so, CHEM 403 is used instead of 405 for determining CEE 600-level qualification.
- 7. Transfer Credit—Only a grade of C or better counts for UNH credit. Submit a Transfer Credit Prior Approval form before taking a course elsewhere. Transferred courses fulfill requirements but the grades do not transfer or affect the UNH GPA.
- 8. Study Away—You need both a UNH GPA ≥ 2.75 and a GPA in CEE courses ≥ 2.75.
- 9. Writing Intensive Courses—You must take at least four: ENGL 401, 1 CEE, 1 600-level or higher, and 1 additional.
- 10. ME 525/526 vs. CEE 500/501—ME 525 may be taken instead of CEE 500 and ME 526 instead of CEE 501.

### **Notes Regarding Electives**

- 11. Spatial Metrics Electives—CEE 403, CEE 404\* (CIE 505), CT 446, NR 658, FORT 581, or ANTH 674.
- 12. Statistics Elective—MATH 539 or MATH 644. Transfer courses must be calculus-based. AP Credit is insufficient.
- 13. SS Discovery Elective—BSCIVE program students entering in the Fall of 2014 and after restricted to the following: CEP 415, CSL 401, ECON 401, ECON 402, ECON 444, EREC 411, GEOG 582, GEOG 584, or POLT 402.
- 14. WC Discovery Elective—International students and students that study abroad may not have to take the World Cultures Discovery Course. Therefore, delay the WC elective until you're sure you need it.
- 15. Senior Technical Elec.—GEOG 757, INCO 795, NR 757, TECH 750, TECH 780, CEPS or CEE 700-level course ≥ 3 cr.

### **Notes for Seniors**

- 16. Restrictions on the Senior CEE electives:
  - a. You must take four electives in four different areas. (A course listed with two areas can only serve for one.)
  - b. You must take at least three design courses: a PDE plus two more design courses.
- 17. Accelerated Master's Program—If you are a senior with a GPA ≥ 3.20, you can be concurrently admitted to a UNH Master's program and some courses can count for both the BSCIVE and the master's degree. A maximum of 8 cr can be accepted for a UNH MSCE. (Up to 12 cr may be accepted for other master's degrees.)
- 18. Required Credits—128 credits are required. If you meet the BSCIVE requirements with fewer credits, you must make up the difference with additional credits. You may use any UNH or transferred course to make up required credits.

700-LEVEL CEE ELECTIVES									
	CEE Course	Course Title Cr	edits	SUS	ENV	MAT	WAT	GEO	STR
Project-Based Design	733	Public Infrastructure Asset Management <sup>†</sup>	4 cr		✓	✓			
	748&749	Pavement Design and Analysis (w/lab)†	4 cr			✓			
	755	Design of Press Water Trans Systems	4 cr				✓		
	758	Stormwater Management Designs	3 cr				✓		
	759	Stream Restoration	4 cr				✓		
	778	Foundation Design I	4 cr					✓	
	791	Reinforced Concrete Design	4 cr						<b>✓</b>
	793	Structural Design in Steel	4 cr						<b>✓</b>
Addl. Design Electives	719	Green Building Design	3 cr	✓					
	730	Public Health Engr Rural & Develop	3 cr		✓				
	731	Advanced Water Treatment Processes§	4 cr		✓				
	732	Solid and Hazardous Waste Design*§	4 cr		✓				
	749	Pavement Design and Analysis (w/o lab)	3 cr			✓			
	779	Foundation Design II§	3 cr					✓	
	789	Timber Design	3 cr						✓
	790	Structural Design in Masonry	3 cr						✓
	792	Prestressed Concrete§	3 cr						✓
	794	Bridge Design§	3 cr						✓
Other Electives	700	Building Information Modeling	3 cr						
	703	Site Design and Project Development	3 cr						
	704	Transportation Engineering & Planning	3 cr						
	705	Introduction to Sustainable Engineering	3 cr	✓					
	706	Environmental Life Cycle Assessment	3 cr	✓					
	720	Solid and Hazardous Waste Engineering	3 cr		✓				
	721	Environmental Sampling & Analysis	4 cr		✓				
	722	Introduction to Marine Poll & Control	4 cr		✓				
	723	Water Chemistry	4 cr		✓				
	724	Environmental Engineering Microbiology*	4 cr		✓				
	735	Properties and Production of Concrete†	3 cr			✓			✓
	736	Asphalt Mixtures and Construction	3 cr			✓			
	737	Pavement Rehab., Maint., & Mgmt.	3 cr			✓			
	751	Open Channel Flow	3 cr				✓		
	753	Snow Hydrology	3 cr				✓		
	754	Engineering Hydrology	3 cr				✓		
	765	Engineering Behavior of Soils	4 cr					✓	
	766	Intro to Geotech Earthquake Engineering§	3 cr					✓	
	767	Geological Engineering§	3 cr					✓	
	768	Geo-Environmental Engineering†	3 cr		✓			✓	
	780	Matrix Structural Analysis & Modeling	3 cr						✓
	781	Dynamics of Structures§	3 cr						$\checkmark$

\*Writing intensive, †Course may be used to fulfill either area, but may only fulfill one area elective, §Course has an advanced prerequisite; plan carefully.

Department of Civil and Environmental Engineering University of New Hampshire

BSCIVE Program Advising Worksheet
For Students Entering the Program August 2023 and Later

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Notes: