

JULIAN YAMAURA

Curriculum Vitae

Dept. of Civil & Environmental Engineering
University of Washington
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EDUCATIONAL HISTORY

University of Washington, Seattle, WA
Doctor of Philosophy in Civil and Environmental Engineering
December 2018
Dissertation: Cloud-based Mobile Technology for Transportation Project Inspection

University of Washington, Seattle, WA
Master of Science in Civil and Environmental Engineering
December 2010
Independent research: Sea-tac Airport: RW 16R-34L Rubber Accumulation Investigation

University of Washington, Seattle, WA
Bachelor of Science in Civil and Environmental Engineering
June 2009

EMPLOYMENT HISTORY

University of Washington
Seattle, WA, USA
Assistant Teaching Professor
Director, Online Master of Civil Engineering in Construction Engineering
Director, Online Master of Civil Engineering in Energy Infrastructure
2019 - Present

University of Washington
Seattle, WA, USA
Teaching and Research Assistant
2014 - 2018

Pavia Systems, Inc.
Seattle, WA, USA
Engineering Consultant/Research Engineer
2014 - 2019

Julian Yamaura Consulting
Kirkland, WA, USA
Construction Scheduling Consultant
2014-2015

Atkinson Construction
Renton, WA, USA
Assistant Design Manager and Construction Engineer
2011-2014

Kiewit Corporation

Woodinville, WA, USA
Construction Engineer (intern)

2008-2009

AWARDS AND HONORS

Teaching Awards, Nominations for Teaching Awards

- UW College of Engineering Teaching Award Nomination, 2023, University of Washington
- 2023 Golden Beavers Award – Supporting Education in Heavy Construction Recognition Ceremony, 2023, Los Angeles, California
- Faculty Appreciation for Career Education & Training (FACET) Award, 2022, University of Washington
- UW Civil & Environmental Engineering Department Teaching Award, 2020, University of Washington
- UW College of Engineering Student Teaching Award, 2017, University of Washington
- Nominated for UW College of Engineering Student Teaching Award, 2016, University of Washington

Scholarships

- Washington Asphalt Pavement Association Legacy Scholarship, 2018, Washington Asphalt Pavement Association
- Washington Asphalt Pavement Association Legacy Scholarship, 2015, Washington Asphalt Pavement Association

PUBLICATIONS

Refereed archival journal publications

1. **Yamaura, J.**, Muench, S. T., and Willoughby, K. (2019). “Factors Influencing Adoption of Information Technologies for Public Transportation Project Inspection: A WSDOT Case Study.” *Transportation Research Record*. Transportation Research Board, National Research Council, Washington, D.C.
2. **Yamaura, J.**, and Muench, S. T. (2018). “Assessing the impacts of mobile technology on public transportation project inspection.” *Automation in Construction*, 96, 55–64. DOI: 10.1016/j.autcon.2018.08.021

Journal articles accepted but not yet published

None

Conference proceedings and other non-journal articles

- *Fully refereed publications*
 1. Muench, S. T., Kosonen, H., Veeravigrom, M., **Yamaura, J.**, and Lew, J. (2016). “Quantifying the Sustainability Scope of Roadway Sustainability Rating Systems.” *Proceedings of the Transportation Research Board 95th Annual Meeting of Transportation Research Board*, Washington, D.C.
 2. **Yamaura, J.**, and Muench, S. T. (2016). “Assessing the Impacts of Mobile Technology on Project Inspection.” *New Frontiers in Construction*

- Conference 2016*, Center for Education and Research in Construction (CERC) Conference, Seattle, WA, 4 March 2016
3. **Yamaura, J.**, and Muench, S. T. (2016). “Assessing the Impacts of Mobile Technology on Project Inspection.” *Proceedings of the Transportation Research Board 95th Annual Meeting of Transportation Research Board*, Washington, D.C.
 4. Muench, S. T., Kosonen, H., Veeravigrom, M., and **Yamaura, J.** (2015). “What They Want You to Do: Identifying the Scope and Priorities of Roadway Sustainability Rating Systems.” *Proceedings of the Transportation Research Board 94th Annual Meeting of Transportation Research Board*, Washington, D.C.

Abstracts, letters, non-refereed papers, technical reports

- **Technical Reports**

1. Rupnow, T., Coco, M., White, G., **Yamaura, J.** (2020). *Evaluation of HeadLight: An E-Construction Inspection Technology*. FHWA/LA.19/618. Louisiana Transportation Research Center, Baton Rouge, LA.
2. **Yamaura, J.**, and Katara, S. (2016). *Project Inspection Using Mobile Technology--Phase III: Workflow Identification Research*. WA-RD 840.3. Washington State Department of Transportation, Olympia, WA.
3. **Yamaura, J.**, White, G., Katara, S., Willoughby, K., Garcia, R., and Beer, M. (2015). *Project Inspection Using Mobile Technology – Phase II: Assessing the impacts of mobile technology on project inspection*. WA-RD 840.2. Washington State Department of Transportation, Olympia, WA.
4. Muench, S. T., **Yamaura, J.** (2015) *Assessment and Update of TIB Urban Program and Small City Preservation Program Part 4: Recommended SCPP Treatment Scoping Process*. Transportation Improvement Board, Olympia, WA.
5. Muench, S. T., **Yamaura, J.** (2015) *Assessment and Update of TIB Urban Program and Small City Preservation Program Part 3: Full Depth Reclamation State-of-the-Practice*. Transportation Improvement Board, Olympia, WA.
6. Muench, S.T. and **Yamaura, J.** (2014). *Assessment and Update of TIB Urban Program and Small City Preservation Program Part 2: Small City Preservation Program (SCPP) Data Analysis*. Transportation Improvement Board (TIB), Olympia, WA.

Selected Press and Media Coverage

1. Partnership supports excellence in teaching, UW CEE News & Events, 27 February 2023.
<https://www.ce.washington.edu/news/article/2023-02-27/video-partnership-supports-excellence-teaching>
<https://www.youtube.com/watch?v=NVKx8w2JKcI>
2. Bridging the Distance, *UW News Press Release*, 29 April 2021.
<https://www.washington.edu/boundless/remote-learning/>
3. ‘Hands-on’ classes online? How some instructors are adapting to new teaching environment, *UW News Press Release*, 16 April 2020.
<https://www.washington.edu/news/2020/04/16/how-to-move-hands-on-classes-online/>
Teaching a Lab Class Online, *University of Washington YouTube Channel*, 16 April 2020.
<https://youtu.be/8RbXoOCCxbU>

OTHER SCHOLARLY ACTIVITY

Invited lectures and seminars.

1. Canadian Academy of Engineering & American Society of Engineering Education – Symposium 2: Future Perspectives of Engineering Education and the Impact of the Pandemic, *Reflecting on a Year of Adapting, Assessing, and Refining: The Impact of Remote and Hands-on Labs*. 26 July 2021.
2. American Society of Engineering Education (ASEE) Webinar Series, *Navigating Remote Teaching and Learning: Emerging Promising Practices*. Postponed to 15 June 2020 due to COVID-19 pandemic.
3. UW CEE Water Seminar, *Constructing Snow Fences at Snoqualmie Pass*, 9 April 2020.
4. Louisiana Department of Transportation and Development, *HeadLight Overview and Training*, 30 October 2017.
5. Alabama Department of Transportation, *eConstruction Workshop*, 30 January 2017.
6. TranSystems, *HeadLight Workshop and Training*, 13 September 2016.
7. Minnesota Department of Transportation, *HeadLight Overview and Training*, 23 August 2016.
8. California Department of Transportation, *HeadLight Overview and Training*, 8 July 2016.
9. Washington State Department of Transportation, *HeadLight Training Session*, 27 June 2016.
10. Jacobs Engineering, *HeadLight Workshop*, 21 June 2016.
11. AECOM, *HeadLight Training Session*, 13 May, 2016.
12. California Department of Transportation, *HeadLight Deployment and Training*, 9 May 2016.
13. Atkinson Construction, *HeadLight Demonstration*, 5 February 2016.
14. Washington State Department of Transportation, *HeadLight User Assessment Session*, 1 June 2015.
15. Washington State Department of Transportation, *HeadLight Implementation Training Session*, 20 April 2015.
16. Texas Department of Transportation, *HeadLight Pilot Implementation Presentation*, 21 October 2014.
17. Minnesota Department of Transportation, *HeadLight Pilot Implementation Presentation*, 23 September 2014.
18. Washington State Department of Transportation, *HeadLight Pilot Implementation Presentation*, 19 August 2014.

Presentations given at conferences (presenter in bold).

1. **Rupnow, T., Coco, M.,** Yamaura, J. “Evaluation of E-Construction Inspection Technology”, Session 1449: Advances in Transportation Construction Management, Transportation Research Board 2020 Annual Meeting, Washington D.C., 14 January 2020.
2. **Yamaura, J.** “Integration of Modern Technology in Heavy Civil Construction”, *Center for Education and Research in Construction: New Frontiers Conference*, Seattle, WA, 4 March 2016.
3. **Yamaura, J.,** Muench, S. T. “Assessing the Impacts of Mobile Technology on Project Inspection”, Session 244: Advancement in the Construction Management of Transportation Facilities, *Transportation Research Board 2016 Annual Meeting*, Washington D.C., 10-14 January 2016.

Cross-Disciplinary Advising and Support

1. Mechanical testing of zeolite cement composites. – The PI is Dr. Eleftheria Roumeli, UW MSE. 2023 – present.

2. 2023 Washington State Science and Engineering Fair 2023 – Advised high school student, Anthony Schwartz, (Mountlake Terrace High School, WA) for his *Roundabout Design for the Junction of 212th St SW and 76th Ave S* Science Fair Project. He was awarded the 2023 WSSEF 1st place trophy winner.
3. UW CESI Graduate Student Research Advisor. Advising Phillip Moncayo, CESI Online Masters Student on a US Navy Research Initiative. Spring quarter 2022.
4. Green Cement Formulation (UW MSE) – research advisor (CEE) and co-advising MSE PhD student.
5. Engineers Without Borders (EWB) – UW Chapter, Faculty Advisor. Academic year 2021-2022.
6. APWA – UW CEE Chapter, Faculty Advisor. Academic year 2020-2022.
7. UW CEE Construction Materials Laboratory, Director. Academic year 2019-2022.
8. UW CESI Graduate Student Research Advisor. Advising three CESI Online Masters Students on a US Navy Research Initiative. 2 September 2020.
9. ASTM Academic Task Force, *Globally Sustainable Educational Resources Initiative*, Task force member. 3 February 2021.
10. UW Master of Human-Computer Interaction and Design, *Remote Class Experience Involving Working with Physical Objects and Hands-on Activities*, Interview Session. 12 May 2020.
11. UW iSchool’s Information Management Program. Online Pedagogy During the COVID-19 Pandemic. Advising and interview session for graduate student research project. 12 May 2020.

GRADUATE STUDENTS

Other significant student supervision

Membership on PhD degree committees

Student Name	Department	Degree	Date
Abigail Murray	CEE, UW	PhD	10/2023 – present
Garrett Coffin	CEE, UW	PhD	3/2023 – present
Tommy Li	CEE, UW	PhD	10/2022 – present
Milad Ashtiani	CEE, UW	PhD	9/2022

Membership on Master’s degree committees

Student Name	Department	My Role	Degree	Date
Eryn Lum	CEE, UW	Committee Member	MSCE	In Progress
Kirk Myers	CEE, UW	Advisor	MSCE	In Progress
David Bill	CEE, UW	Advisor	MSCE	In Progress
Phillip Moncayo	CEE, UW	Navy Research Supervisor (UW): <i>Develop Optimized Installation Development Model to Integrate Emerging and Future Transportation Technologies/Principles</i>	MSCE	9/2022
Pete Fovargue	CEE, UW	Navy Research Supervisor (UW): <i>Civil Engineer Corps Officer Career Development in Preparation for Milestone Billets</i>	MSCE	7/2021
Michael Sea	CEE, UW	Advisor	MSCE	7/2021

Josh Taylor	CEE, UW	Advisor	MSCE	8/2020
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DOCUMENTATION OF TEACHING EFFECTIVENESS

Courses Taught & Student Evaluations

Course	Title	Quarter	Credit Hrs	Enrollment	Evaluations? Response	Item 1	Item 3	Item 4	Overall Adj. Median
CEE 433 A	Temporary Structures	Fall, 2023	3	34	Yes, 24/34	4.6	4.8	4.7	4.7
CEE 403 A	Sustainable and Recyclable Materials (ONLINE)	Fall, 2023	1	21	Yes, 8/21	4.5	4.0	4.0	4.5
CEE 337 A	Construction Materials	Fall, 2023	5	34	Yes, 24/34	4.0	4.4	4.1	4.1
CESI 521 A&C	AutoCAD and Bluebeam (ONLINE)	Summer, 2023	1	6	Yes, 1/6	3.7	3.7	3.7	3.7
CEE 435 A	Project Scheduling	Spring, 2023	3	42	Yes, 20/41	4.4	4.6	4.5	4.5
CEE 441 B	Bridge Engineering Capstone	Spring, 2023	5	25	Yes, 15/25	4.8	4.9	4.7	4.8
CEE 307 A	Construction Engineering	Winter, 2023	5	52	Yes, 32/52	3.9	4.6	4.3	4.2
CESI 599 A, B, C	Special Topics – Project Field Assembly	Winter, 2023	3	35	Yes, 13/35	4.0	4.6	4.1	4.3
CEE 433 A	Temporary Structures	Fall, 2022	3	41	Yes, 24/41	4.6	4.9	4.8	4.7
CEE 498 B	Special Topics – Sustainable and Recyclable Materials	Fall, 2022	1	19	Yes, 9/19	4.7	4.6	4.6	4.7
CEE 434 A	Project Estimating	Fall, 2022	3	32	Yes, 14/32	4.7	4.7	4.6	4.6
CEE 433 A	Temporary Structures (ONLINE)	Summer, 2022	3	8	Yes, 2/8	3.9	4.5	4.5	4.3
CEE 434 A	Project Estimating (ONLINE)	Summer, 2022	3	17	Yes, 6/17	4.6	4.6	4.6	4.6

CESI 521 A&C	AutoCAD and Bluebeam (ONLINE)	Summer, 2022	1	9	Yes, 1/9	5.1	5.0	5.1	5.1
CEE 441 B	Bridge Engineering Capstone Project	Spring, 2022	5	25	Yes, 14/25	4.4	4.6	4.5	4.5
CEE 337 A	Construction Materials	Spring, 2022	5	61	Yes, 47/61	4.3	4.8	4.7	4.6
CEE 434 A	Project Estimating	Winter, 2022	3	44	Yes, 32/44	4.4	4.6	4.6	4.5
CESI 599 A&B	Bridge Construction	Winter, 2022	3	6	Yes, 5/6	4.4	4.4	4.3	4.4
CEE 435 A	Project Scheduling	Fall, 2021	3	28	Yes, 21/28	4.4	4.6	4.5	4.5
CEE 433 A	Temporary Structures	Fall, 2021	3	40	Yes, 33/40	4.3	4.9	4.6	4.6
CEE 433 A	Temporary Structures (ONLINE)	Summer, 2021	3	13	Yes, 7/13	3.9	4.6	4.4	4.3
CEE 434 A	Project Estimating (ONLINE)	Summer, 2021	3	12	Yes, 6/12	3.9	4.4	4.7	4.3
CESI 521 C&A	AutoCAD and Bluebeam (ONLINE)	Summer, 2021	1	21	Yes, 7/21	4.8	5.0	5.0	4.9
CEE 441C	Bridge Construction Capstone (ONLINE)	Spring, 2021	5	17	Yes, 3/17	4.7	4.7	4.7	4.7
CEE 337	Construction Materials	Spring, 2021	5	63	Yes, 15/63	3.8	4.3	4.4	4.1
CEE 498A	Project Scheduling	Winter, 2021	3	25	Yes, 12/25	4.0	4.6	4.4	4.3
CEE 434	Project Estimating	Winter, 2021	3	57	Yes, 22/57	4.2	4.5	4.3	4.3
CEE 433	Temporary Structures	Fall, 2020	3	41	Yes, 19/41	4.1	4.7	4.5	4.5
CESI 599	Bridge Construction	Fall, 2020	3	7	Yes, 4/7	4.3	4.5	4.5	4.5
CEE 498C	Temporary Structures	Summer, 2020	3	11	Yes, 4/11	4.4	4.6	4.6	4.6
CEE 498A	Project Estimating	Summer, 2020	3	10	Yes, 3/10	4.4	4.5	4.5	4.3
CESI 521	Intro to AutoCAD	Summer, 2020	1	19	Yes, 8/19	4.4	4.5	4.7	4.5

	and Bluebeam								
CEE 441	Heavy Civil Capstone Project	Spring, 2020	5	20	10/20	4.4	4.7	4.6	4.6
CEE 337	Construction Materials	Spring, 2020	5	73	21/73	4.5	4.9	4.8	4.7
CEE 498	Project Estimating and Scheduling	Winter, 2020	3	36	Yes, 15/36	4.3	4.8	4.6	4.5
CEE 498	Temporary Structures	Fall, 2019	3	31	Yes, 22/31	4.1	4.4	3.9	4.1
CESI 521	Intro to AutoCAD and Bluebeam	Summer, 2019	1	6	Yes, 3/6	3.1	4.0	3.2	3.7
CEE 337	Construction Materials	Spring, 2019	5	67	Yes, 48/67	4.4	4.9	4.8	4.6
CEE 337	Construction Materials	Spring, 2018	5	71	Yes, 46/71	4.0	4.8	4.6	4.3
CEE 337	Construction Materials	Spring, 2017	5	63	Yes, 50/63	4.4	5.0	4.9	4.7
CEE 337	Construction Materials	Spring, 2016	5	63	Yes, 39/63	4.4	4.5	4.4	4.4
CEE 337	Construction Materials	Spring, 2015	5	60	Yes, 55/60	4.1	4.4	4.2	4.2
CEE 421	Pavement Design	Summer, 2011	3	10	Yes, 9/10	4.1	4.4	4.2	4.3
CEE 421	Pavement Design	Summer, 2010	3	18	Yes, 14/18	3.7	4.2	3.8	3.9

Teaching Assistant Courses

Course	Title	Quarter	Instructor on Record	Description of Involvement
CM 232	Construction Methods and Materials II	Winter, 2018	Kamran Nemati	Developed and instructed the laboratory portion of this class, supervised student lab experiments, graded lab reports and memos
CM 323	Construction Methods and Materials II	Winter, 2017	Kamran Nemati	Developed and instructed the laboratory portion of this class, supervised student lab experiments, graded lab reports and memos
CEE 337	Construction Materials	Fall, 2016	Joe Mahoney	Instructed the laboratory portion of this class, supervised student lab experiments, graded course materials
CM 323	Construction Methods and Materials II	Winter, 2016	Kamran Nemati	Developed and instructed the laboratory portion of this class, supervised student lab experiments, graded lab reports and memos
CEE 337	Construction Materials	Fall, 2015	Joe Mahoney	Instructed the laboratory portion of this class, supervised student lab experiments, graded course materials

CM 323	Construction Methods and Materials II	Winter, 2015	Kamran Nemati	Developed and instructed the laboratory portion of this class, supervised student lab experiments, graded lab reports and memos
CEE 337	Construction Materials	Fall, 2014	Joe Mahoney	Instructed the laboratory portion of this class, supervised student lab experiments, graded course materials
CEE 441	Construction & Transportation Capstone	Spring, 2014	Steve Muench	Provided advice and helped students on their capstone projects as a construction subject matter advisor, scheduled industry professionals for guest lectures, and helped evaluate final capstone projects
CEE 363	Construction Materials	Spring, 2011	Joe Mahoney	Instructed the laboratory portion of this class, supervised student lab experiments, graded course materials
CM 323	Construction Methods and Materials II	Winter, 2011	Don Janssen	Supervised student lab experiments, graded course materials
CEE 363	Construction Materials	Fall, 2010	Don Janssen	Supervised student lab experiments, graded course materials
CEE 363	Construction Materials	Spring, 2010	Joe Mahoney	Instructed the laboratory portion of this class, supervised student lab experiments, graded course materials
CM 323	Construction Methods and Materials II	Winter, 2010	Don Janssen	Supervised student lab experiments, graded course materials

Peer Teaching Evaluations

Course	Quarter	Reviewer
CEE 441B	Spring 2023	Dr. Steve Muench
CEE 434	Winter 2022	Dr. Ken Yasuhara
CEE 337	Spring 2021	Dr. Jessica Kaminsky
CEE 337	Spring 2020	Dr. Joe Mahoney

List of other teaching contributions

Curriculum Development

- Online MSCE in Construction Engineering Program Management.** The large-scale adoption of Workday Finance and the changes made to the services offered by UW PCE resulted in the need to develop a new business and administrative processes for managing the Online MSCE in CE program. Currently working with the COE, CEE, and CM administration teams to develop and standardize new financial and operational analysis procedures. Another major focus is to create a financially viable marketing program (by PCE) to increase applications/enrollment from historically significant markets.
- Online MSCE in Energy Infrastructure Program Management.** Significant tasks include instructor recruitment and retention, development of a curriculum advisory committee, marketing to increase overall program enrollment, and coordinating with the Clean Energy Alliance to increase and enhance civil engineering's role in the Alliance. Partnering with Perkins Coie Law Firm to develop new courses and connecting CEE students to the broad energy industry.

Course Development

- **CEE 498 A Construction Capstone Part 1 & 2 (Winter & Spring Quarters, 2024) – Fish Passage Project.** The students in this Capstone will obtain the released for construction (RFC) plans and specifications for the Horseshoe Lake Fish Passage Project on SR 203 to determine the technical design and construction requirements during the Winter quarter. In Spring, the students will create a construction estimate and schedule to determine how the fish passage project can be completed in one 72-hour full road closure. The students will present their project plans to the owner (WSDOT) and the Design Builder (Atkinson Construction) for this project. This course is co-taught with Steve Muench, another CESI faculty member.
- **CEE 307 Construction Engineering.** I inherited a previous version of this course and modified the curriculum. Added content from my previous construction career to support the estimating and scheduling content. I will be modifying this course again prior to the next offering in WIN 2024 to balance out the estimating and contract curriculum with more constructability analysis methods.
- **CESI 531 Project Field Assembly.** This course was developed to be included in the MSCE: Construction Engineering and the MSCE: Energy Infrastructure degree programs. This course introduces engineered lift techniques and development of support structures needed to assemble infrastructure projects on site. Major topics include determination of loads, environmental and site considerations, crane picks and rigging, use of temporary structures, and software involved in these tasks. The course was offered for the first time in Winter 2023.
- **CEE 403 Sustainable and Recyclable Materials.** There is high interest from the undergraduate students for course content related to sustainable construction practices and material use. This course was developed to present current methods used by industry leaders to recycle and reuse civil infrastructure materials and to minimize materials entering landfills. The course covers the development of sustainable cement blends, recycling and reuse of traditional construction materials, and new and emerging techniques to recycle plastics and depleted researchable batteries used for power storage and electric vehicles. This course was offered for the first time in Fall 2022.
- **CEE 441 Bridge Engineering Capstone Project.** This course went through changes for the Spring 22 iteration. This course now focuses on the following three topics: bridge construction means and methods, development of the baseline CPM schedule, and a crane lift engineering or temporary structures design project.
- **CESI 599 Project Estimating (Remote, Asynchronous).** This course was developed to be included in the MSCE: Construction Engineering and the MSCE: Energy Infrastructure degree programs. This course presents the basic principles of estimating the time and cost of construction projects. Course also covers the basic use of industry standard software to perform quantity takeoffs, determine production and cost data, and generate bid estimates.
- **CEE 433 Temporary Structures (Remote, Asynchronous) & 434 Project Estimating (Remote, Asynchronous).** These remote and asynchronous courses have been modified from the in-person version of these courses. Development effort for these new summer courses includes prerecording lecture content, removal of group projects, and other changes to make it easier for our working

students to take this course in supplement with their summer obligations (internships, etc.)

- **CESI 530 Bridge Construction.** I developed a 3-credit graduate course that teaches the modern means and methods used to build the substructure and superstructure of precast concrete girder bridges. This course was developed as both an online and in-person class. The course is in Kuali currently waiting for a permanent course number.
- **CEE 441 Bridge Construction Capstone Project.** This course (offered Spring 2021) has been significantly revised from the capstone course that was offered in Spring 2020. The project theme is still based on the construction of the twin avalanche bridges in the Snoqualmie Pass region. The project deliverables have been revised to now include a bridge foundation earthwork work plan, development of a drilled shaft work plan, design of a critical crane lift and rigging plan, and development of a CPM schedule using MS Project. This course was developed as an online class with synchronous and asynchronous lectures.
- **CEE 337 Construction Materials.** Although I have taught this course in previous years, the laboratory component of this course was significantly redeveloped in 2020 to be delivered through an online platform (in response to the COVID-19 pandemic). Prerecorded lab videos, the use of online collaboration tools, and interactive livestream sessions were implemented in Spring, 2020.
- **CEE 441 Heavy Civil Capstone Project.** I developed a 5-credit capstone course that focuses on the preconstruction engineering activities involved in building an elevated bridge structure designed to withstand avalanche events in the Snoqualmie Pass East region. Developed as both an on-campus and online course in response to the COVID-19 pandemic.
- **CEE 435 Project Scheduling (initially CEE 498).** I developed a 3-credit course that continues to build upon the basic scheduling principles taught in CEE 307 by teaching intermediate and advanced construction scheduling techniques with emphasis on industry standard software. Developed as both an on-campus and online course. ***This course was initially offered as CEE 498 Project Estimating and Scheduling but will be split into CEE 434 Project Estimating and CEE 435 Project Scheduling starting Summer, 2020.
- **CEE 434 Project Estimating and Scheduling (initially CEE 498).** I developed a 3-credit course that teaches intermediate to advanced principles of estimating the time and cost of heavy civil construction projects. Developed as both an on-campus and online course. ***This course was initially offered as CEE 498 Project Estimating and Scheduling but will be split into CEE 434 Project Estimating and CEE 435 Project Scheduling starting Summer, 2020.
- **CEE 433 Temporary Structures (Initially CEE 498).** I developed a 3-credit course that focuses on the design and construction of falsework, formwork, temporary retaining wall systems, and horizontal and vertical shoring structures. Developed as both an on-campus and online course.
- **CESI 521 Introduction to AutoCAD & Bluebeam.** Co-developed with Tom Le, this 1-credit online course was developed for the Master of Science in Civil Engineering: Energy Infrastructure Program planned to be offered in summer quarter 2019.

SERVICE

Departmental Service

- Member. Education Committee, 2023 – current.
- Member. Undergraduate Education Committee, 2019-2023.
- CEE Instructional Lab Manager Search Committee (temporary position), member, 2022.
- CEE Lab Technician Search Committee, member, 2021-2022.
- COVID Taskforce, UW CEE, Taskforce member, Academic year 2020-2021.
- Project Coordinator, UW CEE, More Hall 034 Basement Remodel, 2019 – 2020.

College Service

- Taskforce Member, COE Teaching Faculty Committee. 2022 – present.
Development of promotional guidelines for Teaching Faculty in COE. As of May 2023, the drafted guideline is being reviewed by the COE P&T council.

Professional society memberships

American Society for Engineering Education	2023 - present
Association for the Advancement of Cost Engineering	2022 - 2023
American Society of Civil Engineers (ASCE)	2021 – 2022
Associated General Contractors of America (AGC)	2020 – 2021
American Concrete Institute	2018 - 2020

Community service

- Mentor for Mountlake Terrace High School student, ISEF Science and Engineering Competition. 2022.

International, national or governmental service

- ASTM Academia Taskforce: Globally Sustainable Education Resources Initiative, 2020-2021.