

## **TUES: Positioning Engineers for Urban Sustainability Transition Strategy Development**

### **Vertical Integration Course Evaluation Pre-Survey for CEE 486/494/507/SOS 547/PUP 553 (Urban Infrastructure Anatomy and Sustainable Development)**

1. Based on credit hours, you are currently a:
  - a. PhD student
  - b. MA student
  - c. MS student
  - d. MSE student
  - e. Undergraduate – Senior
  - f. Undergraduate – Junior
  - g. Undergraduate – Sophomore
  - h. Undergraduate – Freshman
  
2. In which course are you enrolled?
  - a. CEE 486
  - b. CEE 494
  - c. CEE 507
  - d. SOS 547
  - e. PUP 553
  
3. What is your current major, if you have declared one? Please select all that apply.
  - a. Computer science
  - b. Construction management
  - c. Engineering - Aerospace
  - d. Engineering - Biomedical
  - e. Engineering - Civil
  - f. Engineering - Civil and environmental
  - g. Engineering - Chemical
  - h. Engineering - Computer systems
  - i. Engineering - Construction
  - j. Engineering - Environmental
  - k. Engineering - Electrical
  - l. Engineering - Geotechnical
  - m. Engineering - Industrial
  - n. Engineering - Material science
  - o. Engineering - Mechanical
  - p. Engineering - Structural
  - q. Engineering - Transportation
  - r. Geography

- s. Planning
  - t. Sustainability
  - u. Other (please specify): \_\_\_\_\_
4. What is your current minor, if you have declared one?
5. If you have an undeclared minor or focus, what is it?
6. Please rate your current skill level for each of the following skill areas. (Expert, Advanced, Proficient, Beginner, No knowledge)
- a. Technical communication (i.e., talking with someone from within your field of expertise)
  - b. Interdisciplinary communication (i.e., talking about technical details with someone from outside of your field of expertise)
  - c. Identifying the contributions of fields outside your expertise to solving a problem
  - d. Understanding the perspectives of different fields on a problem
  - e. Working with community stakeholders
  - f. Integrating information from team members
  - g. Assessing the energy and environmental impacts of an infrastructure system
  - h. Explaining the basic physical structuring of core civil infrastructure systems
  - i. Explaining the basic physical structuring of core civil infrastructure systems
  - j. Describing the management structure of core civil infrastructure systems
  - k. Assessing the economic costs of operation, maintenance, and use for core civil infrastructure systems
  - l. Assessing the social equity and environmental justice impacts of an infrastructure system
  - m. Assessing the climate change risks to core civil infrastructure systems
7. To what extent do you anticipate gaining the following skills from participating in Urban Infrastructure Anatomy and Sustainable Development? (Very much, Quite a bit, Some, Very little, Not at all)
- a. Technical communication (i.e., talking with someone from within your field of expertise)
  - b. Interdisciplinary communication (i.e., talking about technical details with someone from outside of your field of expertise)
  - c. Identifying the contributions of fields outside your expertise to solving a problem
  - d. Understanding the perspectives of different fields on a problem
  - e. Working with community stakeholders
  - f. Assessing the energy and environmental impacts of an infrastructure system
  - g. Explaining the basic physical structuring of core civil infrastructure systems
  - h. Explaining the basic physical structuring of core civil infrastructure systems
  - i. Describing the management structure of core civil infrastructure systems
  - j. Assessing the economic costs of operation, maintenance, and use for core civil infrastructure systems

- k. Assessing the social equity and environmental justice impacts of an infrastructure system
  - l. Assessing the climate change risks to core civil infrastructure systems
8. How confident are you that you could...? (Very confident, Pretty confident, Somewhat confident, Not at all confident)
- a. Work as part of an interdisciplinary team
  - b. Work independently
  - c. Provide feedback to team members
  - d. Receive criticism from team members
  - e. Communicate technical information to people within your field of expertise
  - f. Communicate technical information to people outside of your field of expertise
9. How confident are you that you could...? (Very confident, Pretty confident, Somewhat confident, Not at all confident)
- a. Advise students within your course on collecting high quality scientific information
  - b. Advise students in other courses on collecting high quality scientific information
  - c. Work collaboratively as part of a research team
  - d. Create tasks for other students to help you complete your work
  - e. Synthesize information from multiple sources, such as peers and published research
10. In what academic year do you expect to graduate?
- a. 2014-2015
  - b. 2015-2016
  - c. 2016-2017
  - d. 2017-2018
  - e. 2018-2019
  - f. 2019-2020
  - g. Beyond 2020
11. Do you intend to pursue additional degrees after you complete your current degree program?
- a. Yes
  - b. No
12. [If yes] What degree?
- a. Bachelor's
  - b. Master's
  - c. Doctorate (e.g., PhD, EdD)
  - d. Medical Doctorate (e.g., MD, DVM, DNP)
  - e. Professional Degree (e.g., MBA, JD, PE)
  - f. Other (please describe): \_\_\_\_\_

13. In what sector do you anticipate working following graduation (or following any planned further education)?
- Academic
  - Government
  - Private for-profit
  - Private non-profit
  - Other (please describe): \_\_\_\_\_
14. To what extent do you think your experience participating in Urban Infrastructure Anatomy and Sustainable Development will influence your career goals?
- Very much
  - Quite a bit
  - Some
  - Very little
  - Not at all
15. Please explain why think your experience will or will not influence your career goals.
16. What advice did you receive from other students who have taken Urban Infrastructure Anatomy and Sustainable Development] in prior semesters?
17. Please use this space to share any other comments you have about Urban Infrastructure Anatomy and Sustainable Development.
18. Please create a username by writing your favorite color and favorite food (e.g. blue tuna or red cookies). We will use this question only to make sure we don't have duplicates. We will not record your information.

Thank you for completing this survey.