



Course: ECI 3: Civil Infrastructure and Society

Description: 3 credits, undergraduate level introductory course for Civil & Environmental Engineering majors through the Department of Civil & Environmental Engineering, University of California, Davis

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Session: Fall Quarter 2021

Due: December 9, 2021

Points Possible: 50

SOCIAL VULNERABILITY AND ENGINEERING TRAINING MODULE ASSIGNMENT*

Part 1: Social Vulnerability & Disasters Training Module (35 points)

Overview:

The Social Vulnerability & Disasters training module offered through the University of Colorado provides a good overview of the concept of Social Vulnerability to hazards. This training module focuses on social vulnerability to hazards and disasters, with an emphasis on population groups that have been identified in the literature as especially at risk to the adverse effects of extreme events. While the focus is on conducting research associated with factors related to social vulnerability—which might seem better suited to academics—it is also helpful towards raising awareness in undergraduate engineering students.

The training is free and takes around 45-60 minutes. Click [here](#) to learn more about CONVERGE, a National Science Foundation-funded initiative headquartered at the Natural Hazards Center at the University of Colorado Boulder. In addition to the Social Vulnerability & Disasters training module, you can access a variety of other training modules, briefing sheets, and check sheets [here](#).

Instructions:

1. Go to the [CONVERGE](#) website.
2. Click on 'Resources' and select 'Training Modules'.
3. Click 'Register Here' and register for a free account.
4. Select the **Social Vulnerability & Disasters** training module.
5. After completing the module, take the 10-question quiz. You must get 8 out of 10 questions correct to receive a certificate of completion for the module. If you do not achieve this on the first pass, you can take the quiz again. A certificate will be automatically generated once you have successfully completed the quiz.
6. Save a PDF version of your certificate in preparation for submission.
7. Submit your certificate of completion.
8. [optional] Add the certificate to your resume and consider completing additional modules.

Note: To complete the training module, you need to progress through the all topics in the training material—including the knowledge checks—until you arrive at the final quiz. You may begin the module at one point in time and complete it at another point in time by logging back into the account you created.



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Part 2: Short Discussion (15 points)

Use the knowledge gained via the CONVERGE module to elaborate and reflect on your hometown or a location you are very familiar with and any threats of rapid-onset disasters that can occur. Identify a population discussed in your CONVERGE training module or another socially vulnerable segment of your community (or another community you are familiar with) that would be disproportionately impacted by the disaster.

Part 3: One-Page Reflection

Read the first two chapters from *Disaster Resilience: A National Imperative* (National Research Council, 2012).

Following this reading, you will submit a 1-page, single-spaced document with 1” margins using Times New Roman 11 pt. font that includes:

- » Your first and last name
- » The title of your reflection paper – points for creativity!
- » A well-developed one-pager that:
 - Is written in a professional, accessible tone that someone with little knowledge about you, your interests, or this class can understand.
 - Is concise and efficient; the best reflections will be focused and use language that is not “fluffy.” Put another way, this assignment is highly biased in favor of writers who get to the point, write in active voice, and stay on topic.
 - Content: Links together your personal academic or career interests; how the training and the reading relate to your academic major, broader education, and your future career/academic goals. Consider elaborating on the connections you draw between the guest lectures in this class, your updated perception of engineering and its role in our world.
- » References
 - Include the list of any references you used in your one-page reflection paper. You can use the ASCE reference formatting.

Note 1: Your reflection should be concise and focused. Use paragraphs to organize your thoughts. This assignment is intentionally short to help you practice efficient communication. All summaries longer than one page will lose 5 points from their total grade (this does not include references, which may be on a second page).

Note 2: Your final grade for this essay will be based on your ability to follow the guidelines; the clarity, creativity, and connectedness of content in your reflection; and in relation to how well your peers do on this assignment. I will use the rubric at the end of this document to grade your assignment. Please know that the grading items in the table at the end of this document are *not* checkboxes; each row reflects a spectrum of points from zero to the maximum amount of possible points. The cells that have higher point possibilities indicate the most important elements of the assignment.

Overview – quality and thoroughness of the reflection	10
Clear link between academic/career goal, ECI 3, training module and reading (if no link, also elaborate why)	12
Clear demonstration that reading has been performed (if you actually do the reading, you will not need worry about this)	10
Quality of spelling / grammar / syntax / punctuation	10
Organization and flow of reflection	6
How creative is the title?	2
Total	50



REFERENCES:

National Research Council. (2012). *Disaster Resilience: A National Imperative*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/13457>

**This assignment was adapted from Heather Champeau's Social Inequalities and Health sample assignment, published in the [CONVERGE Training Modules Assignment Bank](#).*

