## **TTP 282** Transportation Orientation Seminar

Fall 2020

| Instructor: | Susan Handy              |
|-------------|--------------------------|
| Units:      | 1                        |
| Grading:    | S/U                      |
| Time:       | 11:00 – 11:50 am Fridays |
| Location:   | Via Zoom and Canvas      |

This seminar is recommended for first year Transportation Technology and Policy (TTP) students and in Civil and Environmental Engineering and is open to students from other programs interested in transportation, including undergraduates. The goal of this seminar is to provide a broad overview of the transportation field and to give students a general framework that will help them understand how different topics within transportation fit together. In addition, the seminar will ensure students gain at least nominal exposure to basic concepts, standard practices, and new innovations across the transportation field. The seminar offers students the opportunity to get to know other transportation students, learn about the interests of different transportation field.

The requirements for receiving a "satisfactory" grade at the end of the quarter are as follows:

**1.** Attend and participate in the **10** scheduled seminars. If you cannot attend one of the seminar sessions, you must explain your absence to me ahead of time, if possible. The schedule, which is subject to change, is attached.

**2.** Complete a journal over the course of the quarter. This is an intellectual journal rather than a personal journal: the purpose is to reflect on ideas presented in the seminar and to practice formulating, developing, and articulating your own ideas.

You must complete a journal entry following each seminar. I define a journal entry as at least 15 minutes of writing (by computer, typewriter, or by hand). This is a free-writing exercise: you should write spontaneously, authentically, and without editing. If you prefer to proofread and correct errors, please do so only after completing **15 minutes of free writing** – not while drafting your entry.

Things you might right about when writing your entry: How does the material relate to things you're learning in other classes? How does the material relate to your experience, professional or personal? Was anything particularly intriguing about the material? What questions do you have that weren't answered during the seminar?

**Submit your journal entry before the beginning of the next seminar through Canvas.** Journal entries must be completed satisfactorily to pass this course. However, I will not assign grades to the entries or comment on writing style or grammatical correctness. You must submit at least **9 journal** entries (out of 10 sessions) to get credit for the seminar. If you need to miss more than one session, you can complete make-up assignments to get to a total of 9 submissions. Make-up assignments are described on the Canvas site.

**3.** Read what you want. I'll be posting articles and links of potential interest in Canvas. Please forward articles to me you think others might be interested in: slhandy@ucdavis.edu

Tentative Schedule:

| Week | Date  | Торіс                             | Person   | Concepts Covered                                                                       | Related Courses                   |  |  |
|------|-------|-----------------------------------|----------|----------------------------------------------------------------------------------------|-----------------------------------|--|--|
| 1    | 10/2  | Defining the problem              | Handy    | What's the goal?<br>Who does what?                                                     | TTP220;<br>ECI/ESP163             |  |  |
| 2    | 10/9  | Who does what                     | Handy    | Federal policy, responsibilities by level of government, regional planning             | TTP220;<br>ESP/ECI163             |  |  |
| 3    | 10/16 | Travel behavior                   | Pike     | Concept of mobility, travel as derived demand, positive utility of travel              | TTP289-A;<br>ECI251               |  |  |
| 4    | 10/23 | Pavements                         | Harvey   | Paving materials and techniques                                                        | ECI179;<br>ECI259                 |  |  |
| 5    | 10/30 | Traffic control                   | Zhang    | HCM, MUTCD, ITS                                                                        | ECI256                            |  |  |
| 6    | 11/6  | Road design                       | Wheeler  | Road hierarchy, Greenbook, context sensitive design, street standards, traffic calming | ECI162                            |  |  |
| 7    | 11/13 | Vehicle technology                | Jenn     | ICE basics; efficiency/safety trade-offs;<br>emerging technologies                     | TTP210;<br>ECI/ESP 163            |  |  |
| 8    | 11/20 | Future mobility                   | Circella | Sharing; automation; micro-mobility                                                    |                                   |  |  |
|      | 11/27 | No seminar - Thanksgiving weekend |          |                                                                                        |                                   |  |  |
| 9    | 12/4  | Freight                           | Jaller   | Demand, modes, challenges                                                              | ECI298H                           |  |  |
| 10   | 12/11 | Automobile alternatives           | Handy    | Transit, bikes/peds, ICT, land use, climate change                                     | TTP220,<br>ECI/ESP 163;<br>ESP171 |  |  |