**Northeastern University**

**Department of Civil and Environmental Engineering**

Instructor’s Assessment

CIVE 5376 Traffic Engineering

**Semester / Year:** Spring / 2016 **Instructor:** Furth **Date: 05/09/2016**

Expectations regarding this course assessment:

1. Before the start of the course, review the most recent instructor assessment for recommendations on how to improve the course.
2. Grade summaries will be based on exams and possibly on a project, which may have grades for different aspects.
3. *Questions to be asked on the in-class evaluation:*  none.
4. This assessment form is based on the set of topics and learning outcomes listed in the course syllabus. Do not change this part of the syllabus without action from the discipline group. If there is a change, notify the Undergraduate Studies Committee so that this form can be modified.
5. Complete the form and save it as a Word document with filename like this: IAssess\_5376 \_2016\_Spring

**1. What course improvements did you make? How successful were they? Relate them to recommendations made in previous course assessments.** *Expand the table as necessary.*

|  |  |
| --- | --- |
| 1. | I didn’t change anything |
| 2. |  |
| 3. |  |

**2. Your response to student comments and/or TRACE evaluation:** *Respond to serious criticisms and suggestions. Expand table as necessary.*

|  |  |  |
| --- | --- | --- |
|  | **Student Comment** | **Your Comment(s)** |
| 1. | “great class” | Most comments are strongly positive |
| 2. | “more Synchro” | Several would like more practice with Synchro |
| 3. | Update Synchro | They’d prefer a newer version of Synchro |

**3. Student questionnaire summary**

*Omit – does not apply.*

**4. Grade Summary**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Exam 1 question #** | **Topic** | **Average score** (0 to 100) | **% students with adequate achievement** | **Comment on any item with poor achievement** |
| M.1 | Saturation flow factor | 78 | 71 |  |
| M.2 | Change interval | 87 | 92 |  |
| M.3 | Signal timing | 71 | 67 |  |
| M.4 | Capacity, delay | 76 | 76 |  |
| M.5 | Capacity, delay | 89 | 94 |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Exam 2 question #** | **Topic** | **Average score** (0 to 100) | **% students with adequate achievement** | **Comment on any item with poor achievement** |
| F.1 | Int’n capacity | 72 | 61 |  |
| F.2 | Signal timing | 90 | 90 |  |
| F.3 | Ped timing | 93 | 94 |  |
| F.4 | Int delay, queuing | 87 | 88 |  |
| F.5 | Street design | 77 | 73 |  |
| F.6 | Ped accommodation | 76 | 65 |  |
| F.7 | Bike accommodation | 80 | 82 |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Project Component** | **Average score** (0 to 100) | **% students with adequate achievement** | **Comment on any item with poor achievement** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
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|  |  |  |  |
|  |  |  |  |

**5. Here are the topics listed on your syllabus.** For each, give an assessmentof student ability to apply knowledge and to identify, formulate, and solve problems. “Basis for assessment” should be “Grade Summary, #xxx” where xxx is the listed question that examines that topic. If the topic is not covered in the grade summary, state the basis of your assessment.

|  |  |  |  |
| --- | --- | --- | --- |
| **Topic**  | **% students attaining**  | **Basis for assessment** | **Comments** |
| 1. Signalized intersection capacity and level of service
 | 75 | F1, F4 | Learning was unusually sloppy. I probably wasn’t as critical as I need to be |
| 1. Traffic signal timing and signal cycle design
 | 91 | F2, F3 |  |
| 1. Urban street design
 | 77 | F5 | Need more criticism, feedback, redo |
| 1. Pedestrian accommodation
 | 76 | F6 | Need more criticism, feedback, redo |
| 1. Bicycle accommodation
 | 80 | F7 | Need more criticism, feedback, redo |
| 1. Traffic calming and neighborhood traffic management
 | 77 |  | Part of 3 |
| 1. Traffic control devices and warrants
 |  |  | Not important, shouldn’t be listed |

**6. Assessment of Program-Level Outcomes not Covered in Topic Assessment**

*What percentage of students attained the following learning outcomes?*

|  |  |  |  |
| --- | --- | --- | --- |
| **Learning Outcome** | **% students attaining** | **Basis for this rating**  | **Comments?** |
| an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability | 80 | All final exam q’s |  |
| a knowledge of historical and contemporary issues | 80 | Street design assignments, exam |  |
| an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice | 90 | 90% successfully used Synchro |  |

**7. Recommendations for improving this course.** Expand the table as needed.

|  |  |
| --- | --- |
| 1. | More field assignments |
| 2. | Revive the blog assignment on an outstanding traffic engineering example |
| 3. | There was a big dropoff in performance, and I attribute it to having a TA grade homework instead of myself. I need to either grade it myself, or meet with TA to go over each assignment performance |
| 4. | Street design assignments need 2 iterations |
| 5. | Add 2nd Synchro assignment in conjunction with 2nd half of course, e.g., a road diet |
| 6. | Modify assignments to get students more into standard manuals – Boston Complete Streets, Traffic Signal Timing Manual, Highway Capacity Manual. (Course already gets them into the MUTCD). |