**Northeastern University**

**Department of Civil and Environmental Engineering**

Instructor’s Assessment

CIVE 5373 Transportation Planning & Engineering

**Semester / Year:** Spring / 2013 **Instructor: Dulaski Date:** 05/28/2013

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:*  Listed in item 3 below.
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\_5373 \_2013\_Fall

**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 removed the traffic calming portion of the class. Students that took Traffic Engineering and Transportation Analysis and Engineering had expressed concerns about overlapping material. After review with Professor Furth, we decided that I would remove the section on traffic calming. |
| 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. | “individual presentations took up too much time with 50+ people in the class” | Due to the class size (49 on-campus), the individual presentations did take up a significant portion of the class time. Recommendation – add a section that will be used only for presentations late in the semester. |
| 2. |  |  |
| 3. |  |  |

**3. Student questionnaire summary** *(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 | Traffic Flow Theory | 100 | 100 |  |
| M.2 | Traffic Engineering | 83 | 67 |  |
| M.3 | Traffic Engineering | 98 | 98 |  |
| M.4 | Traffic Flow Theory | 89 | 88 |  |
| M.5 | Traffic Flow Theory | 91 | 98 |  |
| M.6 | Transportation Planning | 100 | 100 |  |
| M.7 | Transportation Planning | 100 | 100 |  |
| M.8 | Transportation Planning | 94 | 98 |  |
| M.9 | Transportation Planning | 99 | 100 |  |
| M.10 | Trip Generation | 90 | 90 |  |
| M.11 | Logit Models | 96 | 96 |  |
| M.12 | Queueing Theory | 91 | 92 |  |
| M.13 | Highway Capacity | 95 | 96 |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Exam 2 question #** | **Topic** | **Average score** (0 to 100) | **% students with adequate achievement** | **Comment on any item with poor achievement** |
| F.1 | Pedestrian Safety | 96 | 98 |  |
| F.2 | Transit Service | 79 | 84 |  |
| F.3 | Trip Generation | 94 | 100 |  |
| F.4 | Logit Model | 89 | 86 |  |
| F.5 | Runway Design | 83 | 82 |  |
| F.6 | Pedestrian LOS | 78 | 90 |  |
| F.7 | Runway Design | 84 | 80 |  |
| F.8 | Elasticity | 82 | 76 |  |
| F.9 | Traffic Engineering | 99 | 100 |  |
| F.10 | Transit Revenue | 100 | 90 |  |
| F.11 | Transit Operations | 86 | 100 |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Project Component** | **Average score** (0 to 100) | **% students with adequate achievement** | **Comment on any item with poor achievement** |
| P.1 |  |  |  |
| P.2 |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

**5. Here are the topics listed on your syllabus.** Based on your grade summaries, report the fraction of students that showed ability to apply knowledge and to identify, formulate, and solve problems. In the column “Basis for assessment” report the particular item(s) in the grade summary that support this assessment; or if the topic is not covered in the grade summary, state the basis of your assessment.

|  |  |  |  |
| --- | --- | --- | --- |
| **Topic** | **Percentage of students showing ability to apply knowledge and solve problems** | **Basis for assessment** | **Comments** |
| 1. Characteristics of the transportation system | 92 | Examinations |  |
| 1. Fundamentals of transit operations planning and service design | 76  90  100 | F.8  F. 10  F. 11 |  |
| 1. Fundamentals of traffic engineering and level of service | 100  67  98  100 | M.1  M.2  M.3  F.9 |  |
| 1. Urban transportation planning | 92 | Examinations |  |
| 1. Demand forecasting process | 90  96  100  86 | M.10  M.11  F.3  F.4 |  |
| 1. Comparison of modes and alternatives | 100 | Homework |  |
| 1. Concept of elasticity | 76 | F.8 |  |
| 1. Software tools for transportation planning | 100 | Homework |  |
| 1. Impact Analysis | 100  100  98  100 | M.6  M.7  M.8  M.9 |  |
| 1. Intelligent Transportation Systems |  |  |  |
| 1. Airport planning and design | 82  82 | F.5  F.7 |  |

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

What percentage of students achieved the following learning outcomes?

|  |  |  |  |
| --- | --- | --- | --- |
| **Learning Outcome** | **Percentage achieving** | **Basis for this rating** | **Comments?** |
| an ability to design a system, component, or process to meet desired needs within within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability | 100 | Examinations, homework, and class discussions |  |
| a knowledge of historical and contemporary issues | 100 | Examinations, homework, and class discussions |  |
| an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice | 100 | Examinations, homework, and class discussions |  |

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

|  |  |
| --- | --- |
| 1. | Add more content on public transportation – scheduling |
| 2. |  |
| 3. |  |