

# Transportation EFA

## Civil and Environmental Engineering Updated April 2017

### Description

The *Transportation EFA* is designed for students who wish to gain more depth in transportation engineering topics. BS graduates with this EFA can find work in civil engineering positions involving more transportation engineering tasks. The EFA is also good preparation for students who wish to pursue graduate study (MS or PhD) in transportation engineering.

### CEE Design Electives (6 sh)

The Civil Program requires two CEE Design Electives. For the *Transportation EFA*, the following CEE Design Elective is required:

- ✓ CEE:4762 Design of Transportation System (3 sh)

You must choose a second CEE Design Elective from the following list:

- CEE:3136 Design of Concrete Structures (3 sh)
- CEE:4157 Environmental Engineering Design (3 sh)
- CEE:4374 Water Resources Design (3 sh)
- CEE:4535 Design of Steel Structure (3 sh)

Any course not chosen as a CEE Design Elective may be taken as an EFA Elective.

### EFA Electives (21 sh)

For the *Transportation EFA*, you must choose at least 5 (and a maximum of 7) of the following courses

- CEE:3142 Quality Control (3 sh)
- CEE:3783 Surveying and Remote Sensing (3 sh)
- CEE:3790 Resilient Infrastructure and Operations (3 sh)
- CEE:3998 Individual Investigation in CEE (3 sh)
- CEE:4160 Introduction to Bridge Engineering (3 sh) [Spring/Even Years]
- CEE:4560 Pavement Engineering (3 sh)
- CEE:4730 Transportation Infrastructure Construction and Management (3 sh)
- CEE:4763 Traffic Engineering (3 sh)
- CEE:4176 Transportation Demand Analysis (3 sh)
- CEE:6763 Application Simulation to Transportation (3 sh) [Spring/Odd Years]

Any remaining EFA Electives (a maximum of 2) may be chosen from the following:

- Any 3000 level or above course(s) in CEE
- GEOG:3520 GIS for Environmental Studies (3 sh)
- GEOG:3940 Transportation Economics (3 sh)
- Any other course(s) approved for EFA Elective credit. Other courses require written justification for relevance to the EFA. (Note that many 2000 level or below courses will not be approved for EFA Elective Credit).

### EFA Submission

To submit your EFA, fill out the attached PDF form and email it to Kim Lebeck (kimberly-lebeck@uiowa.edu) for approval by the CEE Curriculum Committee. Keep a copy to bring to Academic Advising with your CEE Advisor.

# Civil & Environmental Engineering EFA Form

## Civil and Environmental Engineering Updated April 2017

Student Name/Date: \_\_\_\_\_ Student ID #: \_\_\_\_\_

Expected Graduation Date: \_\_\_\_\_ Do you plan to take FE exam? \_\_\_\_\_

Subtrack Designation: \_\_\_\_\_ Civil \_\_\_\_\_ Environmental

**Indicate your chosen Elective Focus Area:**

- |                                     |                             |
|-------------------------------------|-----------------------------|
| Civil and Environmental Practice    | Pre-Architecture            |
| Environmental Engineering           | Urban and Regional Planning |
| Hydraulics & Water Resources        | Management                  |
| Structures, Mechanics and Materials | Student Tailored            |
| Transportation                      |                             |

Session	Years	Course #	CEE Design Electives	S.H.	Pre-Requisites
<i>Enter your Choice of Two Required CEE Design Electives</i>					

Session	Years	Course #	EFA Electives	S.H.	Pre-Requisites
<i>Enter your Choice of Courses for the Seven Required EFA Electives</i>					

For the **Pre-Architecture, Urban and Regional Planning, Management, and Student Tailored EFAs**, list courses that are required but do not count as EFA Electives. These courses may be used to satisfy the General Education Component (GEC) requirements.

Session	Years	Course #	Additional Required Courses	S.H.	Pre-Requisites
<i>Enter any additional required courses for this EFA</i>					

For the **Student Tailored EFA**, include a career statement to justify the elective focus area. Provide information on the requirements of the minor field or the certificate program when the EFA form is submitted.

Career Objective(s) Statement: