

Concentration in Intelligent Systems Engineering: WORKSHEET

Student Name: _____ Faculty Advisor: _____

STEP 1: Identify Specialization Area of CEE:

Select your area of disciplinary specialization.

- | | | | |
|---------------------------------------|--|---|---------------------------------------|
| <input type="checkbox"/> Structures | <input type="checkbox"/> Materials | <input type="checkbox"/> Hydraulics | <input type="checkbox"/> Geotechnical |
| <input type="checkbox"/> Construction | <input type="checkbox"/> Environmental | <input type="checkbox"/> Transportation | <input type="checkbox"/> Energy |

STEP 2: Core Systems Courses:

All courses must be taken.

Core Course	Term Taken	CEE Credits	Non-CEE Credits*
CEE572			
CEE575			
CEE571			
CEE553 -OR- IOE510			
TOTAL			

STEP 3: Core Plus System Courses:

Please select courses taken or to be taken (select 2).

Core Course	Term Taken	CEE Credits	Non-CEE Credits*
EECS 460			
EECS 501 -OR- CEE 573			
EECS 502 -OR- CEE 576			
EECS 550			
EECS 551			
EECS 564			
EECS 565			
TOTAL			

STEP 3: Other Courses:

Please identify other courses taken. Directed studies, seminar or independent research credits are not acceptable to satisfy course requirements.

Non-core Course	400-Level (Yes/No)	Term Taken	CEE Credits	Non-CEE Credits*
TOTAL				

STEP 4: Research Project:

Please provide details on your Independent Study research project.

Research Project Title	Term Taken	CEE Credits	Non-CEE Credits*
CEE970 (Title: _____)			
TOTAL			

STEP 5: Program Requirements:

Check to ensure all other program requirements have been met.

Requirement	Credits	Limit
Total Number of Credits Taken		≥ 30
Number of CEE Credits Taken (incl. CEE 970)		≥ 18
Total Number of 400-Level Credits		≤ 12
Total Number of 400-Level Credits in CEE		≤ 9

Advisor signature _____

Date: _____

Table 1: Example Course Sequences for ISE Students to Follow:

Degree Req.	Structures	Hydraulics	Energy	Transportation
Systems Core (13 credits)	CEE571: Linear Systems			
	CEE572: Dynamics Infrastructure Systems			
	CEE 553: Infrastructure Sys Optimization			
	CEE575: Sensing for Civil Infrastructure			
Core Plus (6 credits)	CEE576: Stochastic Systems	EECS 551. Matrix Methods for Signal Processing, Data Analysis and Machine Learning	CEE576: Stochastic Systems	EECS 551. Matrix Methods for Signal Processing, Data Analysis and Machine Learning
	EECS460: Control Systems Analysis and Design	EECS 564. Estimation, Filtering, and Detection	EECS 565: Linear Feedback Control Systems	EECS 501: Probability and Random Processes
Concentration Electives (9 credits)	CEE511: Structural Dynamics	CEE521: Flow in Open Channels	CEE 567: Energy Infrastructure Systems	CEE 551: Traffic Science
	CEE510: FEM in Solid & Structural Mech	CEE 520: Physical Processes of Land-Surface Hydrology	EECS 463: Power Systems Design and Operation	CEE 552: Transportation Network Modeling
	CEE 512: Nonlinear Analysis of Structures	CEE 526: Design of Hydraulic Systems	EECS 598: Power Systems Markets and Optimization	CEE554: Data Mining in Transportation
Research (2 credits)	CEE 970: Independent Study	CEE 970: Independent Study	CEE 970: Independent Study	CEE 970: Independent Study