

**AE 6551 Cognitive Engineering (3-0-3)**  
**Course Outline**

Week 1: What is cognitive engineering? What problems does it seek to answer?

Week 2: Situated behavior – human behavior not just as a response to context, but as a *creator* of context

Week 3: Ethnographic methods for observing important system dynamics in context.

Week 4: Measuring human behavior and technology impact in naturalistic environments.

Week 5: Structured methods for identifying and codifying important system dynamics.

Week 6: Structured methods for identifying and codifying important task dynamics.

Week 7: Human interaction with artifacts I – Categorizing and understanding HAI.

Week 8: Human interaction with artifacts II – How do people interact with automated/intelligent systems?

Week 9: Human interaction with artifacts III – How do people interact with automated/intelligent systems?

Week 10: Human interaction with the environment I – Using the environment to support behavior.

Week 11: Models of human decision making

Week 12: Human interaction – Designing teams and collaborative systems

Week 13: Human interaction with the environment II – Procedures

Week 14: Putting artifacts and the environment together – , Distribution of information and its impact on human behavior.

Week 15: Discussions of term projects and anything else of interest