COURSE DETAIL

COGNITIVE ENGINEERING
Country Germany
Host Institution Technical University Berlin
Program(s) Technical University Summer
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Psychology Engineering
UCEAP Course Number 105
UCEAP Course Suffix
UCEAP Official Title COGNITIVE ENGINEERING
UCEAP Transcript Title COGNTIV ENGINEERING
UCEAP Quarter Units 4.00
UCEAP Semester Units 2.70

Course Description

This course examines the field of human factors. First, the theoretical groundwork (human perception and performance, design principles, and trust in automation) is laid and participants gain first practical insights into complex socio-technical systems. Afterward, students team up to put the theoretical foundation into the real world, examining typical challenges in human-automation interaction. The course consists of a holistic research process from the development of the research question to the presentation of the results. Thereby, the investigated technologies can vary broadly (e.g. humanoid robots, mobile applications, navigation devices, or websites). The course discusses topics including human information processing and action selection as well as accompanying limitations; common methods to analyze and optimize typical human factors problems; evaluation methods for human- machine-interaction in the context of user-centered design; fundamentals of Cognitive Engineering; human information processing and action selection; display design & usability; human-automation interaction; human-robot interaction; joint specification of the research technology and question; consolidation and application; and social and ethical issues in human-machine Interaction.

Language(s) of Instruction
English

Host Institution Course Number

Host Institution Course Title
COGNITIVE ENGINEERING

Host Institution Campus
TUBS

Host Institution Faculty

Host Institution Degree

Host Institution Department

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