KURSPLAN

Implementation of Digital Technologies and the Construction Industry, 7,5 högskolepoäng

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Kurskod:	TIDR23	**Utbildningsnivå:**	Avancerad nivå
Fastställd av:	VD 2022-03-01	**Utbildningsområde:**	Tekniska området
Reviderad av:	Utbildningschef 2024-11-07	**Ämnesgrupp:**	TE9
Gäller fr.o.m.:	2025-01-01	**Fördjupning:**	A1N
Version:	3	**Huvudområde:**	Bebyggd miljö

Lärandemål

After a successful course, the student shall

Kunskap och förståelse
- show familiarity with the major approaches to socio-technical systems and technology-related organizational change processes

Färdighet och förmåga
- demonstrate the ability to analyze and explain the basic foundations of major approaches to technology-related organizational change processes
- demonstrate the ability to analyze and explain the blurred boundaries between the technology and the social aspects when designing and implementing digital technologies
- demonstrate the ability to analyze how the characteristics of the built environment sector shapes implementation of digital technologies

Värderingsförmåga och förhållningssätt
- demonstrate the ability to identify barriers and drivers in a technology-related organizational change processes
- demonstrate the ability to evaluate the implications for implementation strategies

Innehåll

Digital technologies have come to play an increasing role among organizations in the built environment sector, but technology-related organizational change and development processes are seldom as straight forward as described by advocates for new technologies.

In order to gain an enhanced understanding of implementation of digital technologies and the Built Environment the course includes the following elements:
- Socio-technical research in new technology and information systems in built environment
- Introduction to alternative approaches to understand socio-technical systems, such as; technological determinism, innovation studies, multi-level perspective, institution theory, social

constructivism, actor-network theory, critical and political perspectives
- Analysis of structures shaping the built environment sector
- Analysis of underlying structures shaping the built environment sector Industry analysis and analysis of underlying structures shaping the built environment sector

Undervisningsformer

Lectures, exercises, and assignments and project work.

Undervisningen bedrivs på engelska.

Förkunskapskrav

The applicant must hold the minimum of a bachelor's degree (i.e., the equivalent of 180 ECTS credits at an accredited university) with at least 90 credits in Construction Engineering, Civil Engineering, Built Environment, Architecture Engineering, Product Development (with relevant courses in lighting design) or equivalent. The bachelor's degree should comprise a minimum of 15 credits in mathematics and 7,5 credits in BIM or CAD 3D, or equivalent. Proof of English proficiency is required.

Examination och betyg

Kursen bedöms med betygen 5, 4, 3 eller Underkänd.

Some course components, such as lectures, labs, or seminars, may be mandatory due to their unique and non-repeatable nature.

Poängregistrering av examinationen för kursen sker enligt följande system:

Examinationsmoment	Omfattning	Betyg
Tentamen[I]	4 hp	5/4/3/U
Inlämningsuppgifter/projektarbete	3,5 hp	U/G

[I] Bestämmer kursens slutbetyg vilket utfärdas först när samtliga moment godkänts.

Kurslitteratur

The literature list for the course will be provided 8 weeks before the course starts.

The literature will be based on scientific articles.