KURSPLAN

Scientific Introduction to BIM and Sustainability, 7,5 högskolepoäng

Scientific Introduction to BIM and Sustainability, 7.5 credits

Kurskod:	TSIR22	**Utbildningsnivå:**	Avancerad nivå
Fastställd av:	VD 2022-03-01	**Utbildningsområde:**	Tekniska området
Reviderad av:	Utbildningschef 2023-10-25	**Ämnesgrupp:**	BY1
Gäller fr.o.m.:	2024-08-01	**Fördjupning:**	A1N
Version:	2	**Huvudområde:**	Bebyggd miljö

Lärandemål

After a successful course, the student shall:

Kunskap och förståelse
- demonstrate comprehension of the concept of BIM in research
- demonstrate comprehension of the concept of sustainability and assessment systems in research
- display knowledge of identifying the components of scientific approach in research
- display methodological knowledge of the practice of academic reading and writing regarding BIM and sustainability

Färdighet och förmåga
- demonstrate the ability to evaluate different BIM based sustainability assessment systems for a sustainable built environment
- demonstrate the ability to describe, analyze and reflect on relevant scientific topics in orally and writing form

Värderingsförmåga och förhållningssätt
- demonstrate an understanding of the state-of-art regarding the concepts of BIM and sustainability within the built environment
- demonstrate the ability to independently and critically select and analyze relevant scientific literature

Innehåll

In this course the focus will be on developing academic reading and writing skills about the scientific approaches regarding the concept of BIM and sustainability.

The course includes the following elements:
- Theoretical introduction to the concept of Building Information Management
- Theoretical introduction to the concept of Sustainability in the building sector

- Introduction to the scientific approach
- Introduction to scientific research methods
- Training in academic reading and analysis
- Training in academic writing

Undervisningsformer

Instruction is conducted through lectures and seminars.

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.

Poängregistrering av examinationen för kursen sker enligt följande system:

Examinationsmoment	Omfattning	Betyg
Skriftlig rapport[I]	4,5 hp	5/4/3/U
Muntlig presentation	3 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.

Scientific papers and other course material will be available in Canvas.