



A42D1B Performativ designstudio 4:1 12,0 hp

Digital Studio 4:1

När kurs inte längre ges har student möjlighet att examineras under ytterligare två läsår.

Fastställande

Kursplan för A42D1B gäller från och med HT08

Betygsskala

P, F

Utbildningsnivå

Avancerad nivå

Huvudområden

Arkitektur

Särskild behörighet

Kandidatexamen inom området arkitektur, eller motsvarande utbildningsnivå.

Undervisningsspråk

Undervisningsspråk anges i kurstillfällesinformationen i kurs- och programkatalogen.

Lärandemål

Performative Design: Substance and Surface

Inledning (för samtliga projekt inom studion)

The Studio will actively engage the technological and affective potentials of performative design in architecture. Performance can be understood as the incorporation of contingencies or parameters (material, technical, geometric, programmatic, social and economic) that inform the design process. The generative potential of digital tools makes it possible to use parametric design as a way of evolving new information systems, new modes of fabricating, and producing building components and architecture. Contrary to a linear design approach where technological processes are applied in the interest of the optimization and resolution of a design; this studio will adopt a bi-directional approach where technological processes (in the form of parametric design and computer aided fabrication) will be incorporated as drivers of design innovation.

In order to formulate a distinction in the concept of performance that reflects its differential value in the contemporary context – both material and procedural - we will consider how technological performance coexists with affective performance, where technology is subsumed by the production of sensation. Immersed in an electronic paradigm that has vastly expanded in scope, moving beyond its capacity for representation to stage more profound forms of engagement, we will study the relationship between form, performance, and affect in contemporary architecture.

The studio aims at increasing the existing knowledge and enhancing skills within the field of performative design and to contribute to an increased comprehension of the discipline of architecture as a whole. The course sequence will establish new ways of thinking about design and fabrication, professional practice and its cultural impact. Upon completion of each project students are expected to have acquired knowledge and skills relevant to the context of the studio (competance in innovative architectural design strategies, competence in advanced digital modeling and fabrication, an awareness of contemporary architectural discourse); and to demonstrate an increased comprehension of the discipline of architecture as a whole.

Allmänna mål

1. Projektet ingår i studion Performative Design Studio.

The course is part of the Performative Design Studio.

The generation of digital tools makes it possible to use parametric design as a way of evolving new information systems, new ways of producing building components and architecture.

2. Projektet syftar till ökad kunskap inom detta område och till fördjupad kunskap/färdighet inom arkitekturämnet som helhet. Projektet riktar sig till studenter som kan ha kommit olika långt i denna fördjupning och som därför även efter projektets slut kommer att ligga på olika nivåer.

3. Den enskilde studenten skall efter projektet ha redovisat en individuell utveckling av sina kunskaper och färdigheter inom studioinriktningens program och inom arkitekturämnet som helhet.

Kursinnehåll

Through the design of a small scale architectural project the students will acquire skills in techniques of parametric design, a rigorous understanding of advanced geometry and modeling in relation to digital fabrication and the architectural and structural aspects of

design, and become acquainted with contemporary architectural discourse in close relation to the design task. The superficial will be explored as both a technical operation, through surface modeling and CNC fabrication, and as a discussion on the relationship between substance and surface.

Kursupplägg

The course is structured around weekly tutorials with students (2 times a week), a sequence of assignments or design tasks, a series of lectures, seminars and informal pinups. There will be two reviews with external invited jurors; Mid review and Final review. A study trip to Mexico City is planned to research the architecture of Felix Candela (structural shell design) with a possible stopover in Los Angeles to research contemporary design practices working with digital technology.

Kurslitteratur

Mark Burry, 'Between Surface and Substance,' AD Surface Consciousness (2003), 8-20.
Branko Kolarevic, Performative Architecture: Beyond Instrumentality (2005).
Sanford Kwinter, „Soft Systems,“ In Culture Lab (1993), ed. Brian Boigon, 207-228.
David Ruy, 'Robust Striations,' 'Excerpts,' and 'Discussions,' In Tokyo Bay Experiment Reiser + Umemoto Studio (1997), 11-19, 29-49.

Examination

- PRO1 - Projektdel 1, 9,0 hp, betygsskala: P, F
- PRO2 - Projektdel 2, 3,0 hp, betygsskala: P, F

Examinator beslutar, baserat på rekommendation från KTH:s handläggare av stöd till studenter med funktionsnedsättning, om eventuell anpassad examination för studenter med dokumenterad, varaktig funktionsnedsättning.

Examinator får medge annan examinationsform vid omexamination av enstaka studenter.

Projektet innehåller två delmoment: genomfört och inlämnat projektarbete (9hp) respektive godkänd slutkritik etc (3hp). I det första delmomentet ingår det en eller flera delinlämningar under projekttiden.

Övriga krav för slutbetyg

a) Presentationskrav

Drawings:

Plans 1:100

Sections and elevations 1:100

Analytical drawings parametric strategies, design strategies and architectural qualities

- hierarchical relationships of parametric model (process)
- graphic representation of parameters
- variations of components and complete system

- axonometric drawings showing how different systems correlate
- detailed plan of whole or part of proposal 1:20
- detailed sections and elevations 1:20

Physical Models:

Model of proposal 1:100

A series of detailed models 1:20

Images:

Showing performance qualities of your design

Showing the potential effects of your design

To hand at the latest one week after final review:

A CD with all the final material

Very well photographed physical models

Research file

A3 paper version of your presentation max 10 pages

Each semester all students must:

Have 80% attendance on all compulsory activities, including seminars and tutorials.

Attending reviews is compulsory.

If students are asked to do supplementary work after reviews to pass the course, these supplements should be handed in within a given timeframe.

Submit DESIGN task according to specifications

Submit RESEARCH task according to specifications

Participation in study trip or alternate activity

b) Examination

80% närvaro. Studenten ska aktivt ha deltagit i ritsalsundervisningen och vid föreläsningar och seminarier etc., samt ha godkända deluppgifter och slutpresentation. Deltagande vid kritikgenomgångar är obligatoriskt.

Kompletteringskrav: Arbetet skall utföras, och i förekommande fall kompletteras, inom given tidsram. Se generella anvisningar.

(Grundprincip: Höstterminsprojekt skall ha blivit godkänt senast vid påföljande vårtermins slut; vårterminsprojekt senast före påföljande hösttermins start. Materialet skall lämnas in minst en vecka dessförinnan.)

Projektet ska dokumenteras i en portfölj. Ritningar och samtliga analyser och modeller ska finnas med i dokumentationen. Processen ska redovisas.

Etiskt förhållningsätt

- Vid grupparbete har alla i gruppen ansvar för gruppens arbete.
- Vid examination ska varje student ärligt redovisa hjälp som erhållits och källor som använts.
- Vid muntlig examination ska varje student kunna redogöra för hela uppgiften och hela lösningen.