Study Plan

The study plan consists of (at least) the following sections:

Personal information	
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Studio	
Theme	**NS&IA / Hyperbody**
Teachers	**N. Biloria, H. Bier, M. Sobota**
Argumentation of choice of the studio	Compared with conventional modern architectural theories, the methodologies of Hyperbody emphasize a bottom-up means to scientifically find multiple adaptation of architecture in current complex context in digital age, which to my point of view, reveals more critical and more positive way to debate the interiority of modern architecture and create an opportunity for dialogues with other academic domains.
Title	
Title of the graduation project	**Transferium in Almere**

Product

Problem Statement

The posed problem, research questions and design assignment. This should be formulated in such a way that the project can answer these research questions.
The definition of the problem has to be significant to a clearly defined area of research and design.

This project employs digital parametric methodologies, and implements environmental and socio-cultural information into design parameters and therefore into design. In this design process, system thinking is an important way to logically understand architecture within the larger digital context and precisely build and evaluate performative building solutions and transfer open-ended dynamic social and cultural phenomena into architectural parameters. Therefore, through this graduation project I would like to, firstly, understand the transformation of information from other domains to architecture and how this may be crucial for architectural design; secondly, to answer the questions: how to develop evaluation systems and how to connect different systems in order to make them work logically and support the design.

Goal

This section has to include answers regarding what the intentions of the graduation project are.

Firstly, to build a framework for architectural design by using system thinking as methodology and implementing innovative architecture employing information logistics.
Secondly, to explore solutions of transfer and transformation from social, cultural domains as architectural parametric attributes into architecture.

Thirdly, to develop evaluation instruments for subjects such as interactive architecture, parametric design, scripting- and programming-based design, CAD-CAM processes and collaborative computer-based platforms for information generation and exchange.
Fourthly, to achieve non-standard and interactive architectural project as practical training.

Process

Method description

Description of the methods and techniques of research and design, which are going to be utilised.

In this design process, system thinking as the core of the chosen design methodology helps to build a framework. Then, digital design techniques based on swarm behaviour, parametric modelling, scripting are utilized for simulation and optimization purposes. Also, computer-aided manufacturing techniques are used for developing physical prototypes from a component scale to a scaled building model at different design stages.

Theoretical and practical references

Theoretical (historical, socio-political, scientific and technical research) and practical knowledge that will be consulted.

Hofstadter, Douglas R. 1989. Gödel, Escher, Bach: An eternal golden braid. Vintage Books ed. New York: Vintage Books.

Beukers, Adriaan, and Ed van Hinte (1999). Lightness: the inevitable renaissance of minimum energy structures. 2nd ed. Rotterdam: 010 publishers.

Kelly, Kevin (1994). Out of Control: The New Biology of Machines, Social Systems, and the Economic World. New York: Basic Books.

Leach, Neil. (1997). Rethinking architecture: a reader in cultural theory. New York: Routledge.

Reflection

Relevance and output

The value of the graduation project within the larger socio-cultural and scientific context. List of output with respect to conceptual and design development as well as materialization and construction documents.

Transferium of Almere Pampus is going to be located in the center of this town, where local residents can easily collect, so it will be applied for more public programs such as exhibition halls or cinemas which create sorts of opportunities for social communication. Further, the environmental data such as solar radiation access, shading and shadow, spatial visibility of building etc will be scientifically defined as architectural parameters affecting forms of architecture.

- Interactive presentation showing concept, information models, and behavioral diagrams.
- 3D-4D parametric models showing the design within the site at the phase of concept design, schematic design, design development and construction design.
- Structure and materialization design for CNC-production.
- From 3D model obtained sections, plans, and views at appropriate scales - 1:1000, 1:500, 1:200, 1:100, 1:10, 1:1.
- Physical models developed from the 3D parametric model by means of rapid prototyping

and CNC-production.

Time planning

Scheme of the division of the workload of the graduation project in the 42-week timeframe (P1-5). Compulsory in this scheme are the examinations at the middle and end of the semester, if required, the minors you intend taking and possible exams that have to be retaken. The submitted graduation contract might be rejected if the planning is unrealistic.

Presentation type	Course week	Date	Deadline application
P2	2.8 – 2.9	10-01-11 t/m 21-01-11	12-11-10
P2	4.9 – 4.10	14-06-11 t/m 24-06-11	21-04-11
P4	1.5 – 1.6	27-09-10 t/m 08-10-10	31-08-10
P4	2.4 – 2.6	02-12-10 t/m 15-12-10	12-11-10
P4	3.5 – 3.6	07-03-11 t/m 18-03-11	01-02-11
P4	4.5 – 4.6	16-05-11 t/m 27-05-11	21-04-11
P5	1.9 – 1.10	25-10-10 t/m 05-11-10	08-10-10
P5	2.8 – 2.10	10-01-11 t/m 28-01-11	15-12-10
P5	3.9 – 3.10	04-04-11 t/m 15-04-11	18-03-11
P5	4.9 – 4.10	14-06-11 t/m 01-07-11	27-05-11

P1: Proposition of basic concept employing relevant software and scripting.
P2: Visualization of spatial, socio-economical and cultural information as well as the strategies of structure and materialization design for CNC-production.
P3: Basic draft model and drawings including building construction and technical solutions.
P4: Complete final model and drawings, as well as views at appropriate scales - 1:1000, 1:500, 1:200, 1:100, 1:10, 1:1.
P5: Formally present the complete and precise final model and drawings by means of rapid prototyping and CNC-production.

Attention

Part of the graduation (especially in the MSc 4) is the technical implementation of the building design. Therefore a Building Technology teacher will be involved in the tutoring team from the P2 presentation on. This should be taken into account when writing the study plan / personal graduation contract, with respect to the time planning as well as in the relation to the content (e.g. statement, method and /or relevance).

With the development of graduation project, the technical implementation of the building design is considered within the current practical and economical situation. Precisely, proposal and strategies should certainly fit the reality of CNC design and manufacturing.

P2：to propose non-standard architectural component concept.
P3: to develop this component and make fabrication test.
P4: to integrate architectural project with building technologies based on the pervious design.
P5: to present architectural project with complete building technologies.