

Track IV of the Master-Title for Architects as required basis for the student of the Double-Title-Agreement with the PUC Design, Construction and Energy

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This Brief is a description of the Master IV Track of the Master-Program in Architecture of the TU-Berlin, for the purpose of explaining to Chilean students pursuing the Double Degree at TU-Berlin the requirements they re to fulfill during their exchange semesters. Even if it includes some general aspects of the School's requirements, for comprehensive Information on the School's Curriculum structure and requirements, please refer to http://www.architektur.tu-berlin.de/menue/studium_und_lehre/kurzprofil/

1. Introduction

The teaching of architecture as a discipline and profession stretches from theoretical abstraction to the real, built world. In this journey multiple scales of space are included, ranging from the object to territorial and urban scales, thus expanding the scope of the discipline to areas of diverse complexity. A variety of issues are then comprised, such as housing, the environment, the impact of new infrastructure and public space, as well as questions of heritage, quality of life and technological innovation. All these require a contribution of constant renewal from the discipline to the profession.

2. Master-Title of Architecture at the TU-Berlin

The Master title at the TU-Berlin could be obtained after a regular 4 semester study. Students being interested in the Master title are required to enter with a successful obtained Bachelor-Title in Architecture.

There are 4 tracks of specification offered at the TU within a student can choose, Track I "Architektur allgemein" (Architecture in General), Track II "Architektur im Bestand" (Building Revitalization), Track III "Standort- und Projektentwicklung" (Real Estate and Urban Management) and finally Track IV "Entwurf, Tragwerk und Energie" (Design, Structure and Energy) which also provides the basis for the common agreement between the UC and TUB.

The overall credit range for a student leaving the TU with one of those Master-Titles is 120 LP (Leistungspunkte) where nearly 30 points each of the 4 semesters are to be taken.

The general scheme of study includes the specific content courses of each Track (normally studios and some specific seminars), a row of basic content courses mandatory for all students (sociology, economy, theory and presentation mainly), and a row of free courses the student can choose out of the whole spectrum of the faculty (they are named "Wahlpflicht") or even out of the whole university (they are been called "Freie Wahl"). A graphical scheme is provided in the following figure showing the Track IV study diagram:

Table1: Schematic Structure of the Master Module IV, as of January 2009

Anlage zur Studienordnung Master Architektur, Studienprofil IV: Entwurf - Tragwerk - Energie				Stand 02.05.05
Sem	1	2	3	4
	Modul 1 Integrierter Entwurf I Integr. Entwurf I (8 LP) Baukonstr. (2 LP) Darstellung (4 LP) 14 LP	Modul 21 Entwurf II & Energieoptimierte Architektur Integr. Entwurf II (6 LP) Vorh. Klima/Energie (3 LP) Okol. Gebäudetechnik (3 LP) Integration Klima/Energie (9 LP) 18 LP Oder: Modul 22 Entwurf II: Bauten d. Gesundheitswesens Integr. Entwurf II (6 LP) Planungsmethodik / (3 LP) Bedarfsplanung (3 LP) Gebäudetechnik (3 LP) Modularen Ausbau /Innov. (9 LP) 18 LP		Modul 7 Master-Thesis (2 LP) Masterarbeit (3 LP) 1 Wahpff. Colloquium (3 LP) 24 LP Es ist entweder Modul 21 oder Modul 22 zu wählen.
	Modul 4 Techn. Grundl. & Gebäudekunde Sondargebiete d. TWL (3 LP) Naturw.techn.Grundlagen (2 LP) Gebäudekunde (2 LP) 7 LP	Modul 20 Entwurf III & Tragwerk Städtebau (4 LP) Vorbereitung Tragwerk (3 LP) Integr. Entw. III (5 LP) Tragwerk zum Entwurf (13 LP) 18 LP		
	Modul 5 Methoden und Präsentation Meth. Wisse. Arb. (2 LP) Präis./Mod. (3 LP) 5 LP	Modul 6a Theorie und Geschichte Baugeschichte (2 LP) Architekturtheorie (2 LP) Sem. Baugeschichte (2 LP) oder Architekturtheorie (2 LP) 6 LP		
	Modul 19 (8.+9. Sem) Rech. Soziologie und Bauökonomie Baurecht (3 LP) Bauökonomie (3 LP) 10 LP	Arch.Soz. (4 LP)	freie Wahl 6 LP	freie Wahl 6 LP
		Wahlpflicht 3 LP	Wahlpflicht 3 LP	
LP / Sem	32	29	28	30

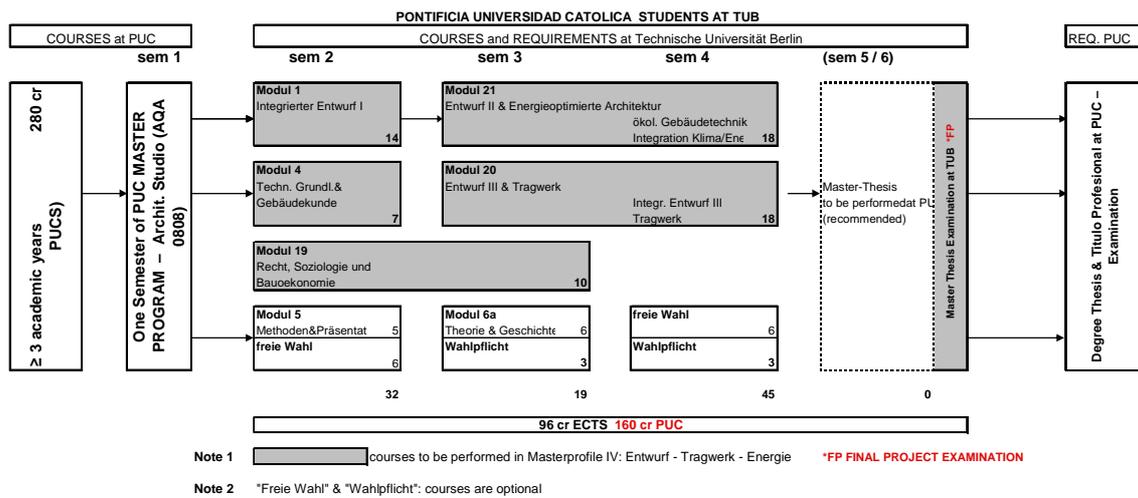
3. The Track IV-Model as the fundament of the Double-Title-Agreement between TUB and PUC.

In the Track IV of the Master Program at the TUB student concentrate in relating architectural design with the requirements of structural layout. Both principles of building design are educated in an integrated manner, meaning that architectural concept and structural system layout were been developed in conjunction and always in accordance to each other. A second emphasis is been put in bioclimatic and energy efficient design. The design concept will be evaluated and optimized on energy-efficiency principles.

The needed knowledge in both areas, structural design and bioclimatic building strategies, will be transmitted in one-semester studios (Modul 1 and Modul 4) and later be applied and engrossed in two 2-semester studios whose aim is to conquer the classical limits of one-semester design-courses in order to reach an unusual detail scale in elaborateness in the proposed field of specification. Beside the structural emphasis in Modul 20, the Modul 21 specifically incorporates building services (heating and cooling nets, water, wastewater, electrical net planning, lighting, acoustics and fire protection) since their requirements directly influences matter of energy efficiency and sometimes even structural questions in building.

The final, slightly modified scheme of the Track IV to be studied by PUC students of the program shows the following table:

Table 2: The modified Track IV at the TUB for the Chilean exchange students.



The general study period abroad for Chilean students is 3 semesters. The fourth semester (semester 5/6 in the above scheme) should be used for doing the master thesis. Even though it will be possible to perform the master thesis in Berlin, it is strongly recommended to do this back in Santiago, in order to limit the period of stay to a maximum of 3 semesters and to “re-anchor” the study project of the final thesis to the home university and the Chilean context. The performed thesis at the UC has to be evaluated in Berlin before the result in Chile. For this, the student is asked to send all planning material of the presentation as printouts or as printable PDF-documents via email (in a way the German committee permit this possibility) together with at least a photographic documentation of the final models (in the case when sending the models will turn out to be too complicated and expensive). The physical presence of the student in the evaluation at the TU is not strictly mandatory (but of course recommended). In this case the student will be lively connected via Skype or other broadcasting technology in order to perform the examination in Berlin.

Before leaving to Santiago for performing the master thesis, the student is required to get in contact with 2 possible guiding professors from the TU, those who also form the committee in the second evaluation back in Berlin. The proposed topic should be developed and agreed with them just as all changes and developments of the thesis are to be communicated in parallel with the professors at the TU.

4. PUC Double Degree Students

PUC students coursing the Double Degree at PUC are to fulfill the requirements established by the Cooperation Agreement that regulates such exchange. Most of these courses are to be fulfilled in the conditions established for this Concentration Certificate. This offers students a structure that is both integrated to the general conditions of PUC School of Architecture and focused on the topics covered by the cooperation.

The requirements established by the TUB-PUC Agreement for PUC students are:

- successfully completed 280 minimum credit units of courses in Architecture (equivalent to at least 3 academic years of study) and at least one higher level architectural studio (AQA 0808)
- well-versed in the German language, as demonstrated by the “Deutsche Sprachprüfung zum Hochschulzugang” (DSH) or TestDaf.

5. Courses Listing and Description

PUC Students at TUB have to choose a

- the 1-semester design course of module 1 (Integrierter Entwurf I)
- 2-semester design project, module 21: Entwurf II & Energieoptimierte Architektur with 18 LP
- 2-semester design project, module 20 Entwurf III & Tragwerk with 18 LP
- the seminar module 4 (Techn. Grundl. & Gebäudekunde)
- the module 5 (Methoden und Präsentation)
- the module 19 (Recht, Soziologie und Bauökonomie)
- a seminar of History & Theory (module 6a)
- two seminars “free choice” (“Wahlpflichtfach”) offered by the Fakultät VI - Planen Bauen Umwelt
- and two seminars in general interest (“freie Wahl”) offered by the whole university.

At least during three terms, a total amount of 120 credit points has to be taken.