

MCDC\

Master

Computational Design

and Construction\

Detmolder

Schule für

Architektur

und Innen-

architektur

Career opportunities and job profile\

Design, construction

and fabrication

The MCDC Master course opens up various possibilities for a professional development, e. g. following occupational areas:

- \-Employment in the area of Architecture, Building Construction, Engineering, Interior and Product Design
- \-Specialization and consultancy in the field of Computational Design and Construction
- \-Admission to PhD study or employment in engineering research
- \-Employment in higher public service

Admission requirements and application\

Apply until June 30th

The requirements for the commencement of studies in the advanced Master's programme in MCDC are:

- \-the advanced technical college entrance qualification or a qualification recognized as being equivalent to this
- \-evidence of a Bachelor's or Diploma qualification, in exceptional cases also evidence of another final examination, for a course having major engineering science components (interior and product design, civil and mechanical engineering, as well as information technology) over at least six semesters
- \-evidence of normally at least one year's professional experience in the field of building and construction
- \-evidence of a special, i.e. technical and methodological, aptitude based on a specialized portfolio and an explanatory report (detailed information via www.m-cdc.de)

Admission procedure:

Students can only be admitted in the winter semester, starting in September. Deadline for the application is June 30th of each year. Please send all necessary documents to Hochschule Ostwestfalen-Lippe, Prof. Dipl.-Ing. Marco Hemmerling MA, Emilienstraße 45, D-32756 Detmold, Germany, Tel. +49.5231.769-667

Profile\

Digital planning\

Methods and latest fabrication

technologies

The new post-graduate Master program focuses on digital design methods and construction technologies in Architecture, Engineering and Design. The curriculum provides scientific and practical foundation and gives an overview of latest developments in Computational Design and Construction. The independent German accreditation institute ACQUIN awarded the quality seal to the study in 2011 after a successful accreditation process.

Digital technologies altered the field of architecture and the architectural profession significantly – from design to production. Against this background the study program incorporates the professional qualities of higher architectural education as well as the theoretic and operative aspects of information technology.

The three-semester Master program addresses graduates of Architecture, Interior and Product Design, Civil and Mechanical Engineering, as well as Information Technology and related studies. Cooperative projects, symposia and master theses serve as a platform for collaborations with the building industry, software suppliers, other universities and architectural offices.

MCDC is based on the following principles:

- Computer-aided methods as cross-linking of design, construction and fabrication process
- \- inter- and transdisciplinary exchange
- \- full-time study related to practice
- \- Synergy and additional benefit out of the connection between university, companies and external professionals
- \- Integration of compact workshops and symposia

Curriculum\

Compulsory subjects and compulsory

electives

| Module | Abbrevia- tion | Amount | | Semester | | | | | |
|---------------------------------|-------------------|--------|----|----------|--------|--------|--------|--------|--------|
| | | Spw | CR | 1 V | 1 Ü | 2 V | 2 Ü | 3 V | 3 Ü |
| Basic-Modules | | | | | | | | | |
| Building Information Modeling | M - CDC B1 | 3 | 4 | 1 | 2 | | | | |
| Programming | M - CDC B2 | 3 | 4 | 1 | 2 | | | | |
| Simulation | M - CDC B3 | 3 | 4 | 1 | 2 | | | | |
| Project- and Datamanagement | M - CDC B4 | 2 | 2 | | | | | 2 | 0 |
| Digital Fabrication | M - CDC B5 | 6 | 8 | | | 2 | 4 | | |
| Material and Construction | M - CDC B6 | 3 | 4 | | | 1 | 2 | | |
| Project-Modules | | | | | | | | | |
| Computational Design | M - CDC P1 | 6 | 10 | 1 | 5 | | | | |
| Computational Construction | M - CDC P2 | 6 | 10 | | | 1 | 5 | | |
| Special-Modules | | | | | | | | | |
| Best Practice 1 | M - CDC S1 | 3 | 4 | 1 | 2 | | | | |
| Best Practice 2 | M - CDC S2 | 3 | 4 | | | | | 1 | 2 |
| New Technologies | M - CDC S3 | 3 | 4 | | | 1 | 2 | | |
| New Materials | M - CDC S4 | 3 | 4 | | | | | 1 | 2 |
| Compulsory Electives (CE) | | | | | | | | | |
| CE 1: Subject of course group 1 | M-CDC WP | 3 | 4 | 1 | 2 | | | | |
| CE 2: Subject of course group 2 | M-CDC WT | 3 | 4 | | | 1 | 2 | | |
| Master Thesis | | | | | | | | | |
| Master Thesis | | | 15 | | | | | x | |
| Colloquium | | | 5 | | | | | x | |
| Amount Spw | | 50 | | 21 | | 21 | | 8 | |
| Summe CR | | | 90 | 30 | | 30 | | 30 | |
| CR=Credits | | | | | | | | | |

CR=Credits

Course content and planned

schedule\

Study period of

three semesters

The Master program has a modular basis and comprises a study period of three semesters.

The module's contents are oriented toward integrated learning assignments, which are directed by lecturers of Detmolder Schule and external experts. The contents are provided via different teaching methods like lectures, seminars, projects and internships. The self-study is assisted intensively during the attendance period and further supported through specific course materials and internal e-learning offerings.

The post-graduate study concludes with the master thesis in the third semester. The aim is to conduct the thesis with the highest possible relation to practice and multidisciplinary together with cooperation partners, an engineering company, an authority or another department of the Hochschule Ostwestfalen-Lippe. The extent ranges from a scientific development up to a subject-specific product development and reflects the diversity of individual specialization existing within the MCDC.

Master degree\

Worldwide

acknowledgement

The Master program leads to the qualification of the worldwide acknowledged academic degree „Master of Engineering“ (M. Eng.). Employment in engineering or design oriented areas is possible. The degree entitles to a PhD degree study and opens the admission to higher public service.

Contact\

Detmolder Schule

für Architektur und Innen-

architektur\

Emilienstraße

45, 32756 Detmold, Germany\

www.m-cdc.de

Information\

Prof. Dipl.-Ing.

Marco Hemmerling\

T. +49.5231.769-667\

info@m-cdc.de

Open day including student

counselling and information\

Every 1st or 2nd Saturday in

May

Stand: 30.11.2012

Consolidation and

Elective Subjects

Compulsory Electives, course group 1 - Planning

- \-Advances Simulation
- \-Software 1
- \-Software 2

Compulsory Electives, course group 2 - Engineering

- \-Advanced Fabrication
- \-Software 3
- \-Software 4

Tuition fee

semester fee: 2300,– €.