

Module Title	Lighting Technologies			
Module Number	MLD C1			
Responsibility	DIAL			
Lecturers	Dipl.-Ing. Klaus Bieckmann, Dipl.-Ing. Cornelia Wuttke, Dipl.-Ing. Ariane Ignazak,			
Course of study	Master Lighting Design (MLD)			
Status	Mandatory Module	x	Compulsory Module	
Use for MIAD	Mandatory Module		Compulsory Module	
Use for MIAR	Mandatory Module		Compulsory Module	
Use for MNBB	Mandatory Module		Compulsory Module	
Semester	1			
Forms of Teaching	Lectures, seminars, workshops, laboratory			
Language	English			
Hours/Week (SWS)	2			
Hours/Week (SWS)	Lecture	1	Other	1
Workload (h)	Lecture	15	Laboratory	2
	Seminar	5	Workshop	8
	Excursion		Work Experience	
	Self Study	80	Exam Preparation	10
Total Workload (h)	120			
Credits	4			
Prerequisites	None			
Location	DIAL, Lüdenscheid			
Technical Instruments	Goniophotometer, Ulbricht Kugel			
Goals of Study, Competences	<ul style="list-style-type: none"> The students will learn and understand the fundamentals of lighting technologies. 			
Contents of Study	<ul style="list-style-type: none"> The content will cover basics of visual perception (visual field, optics of eye, colour vision, etc.) and basics of technical lighting. The students will measure photometric and colorimetric parameters. They will learn the basics of light generating principles, classification of luminaires and the criteria to evaluate luminaires. 			

	<ul style="list-style-type: none"> • This module will get an overview of optical techniques including optical systems, reflectance of materials and reflection factors. • Basics to understand technical parameters of luminaires and the main criteria for evaluating their energy efficiency. • At the end of this course the students will get an overview of technical knowledge of control gears.
Forms of Exam	Presentation
Literature recommendation	<ul style="list-style-type: none"> • Boyce, Peter R. (2014). HUMAN FACTORS IN LIGHTING; Taylor & Francis Group, LLC, • Baer, Roland (2006). Grundlagen Beleuchtungstechnik, huss-Medien, Berlin. • Witting, Walter (2014). LICHT.SEHEN.GESTALTEN; Verlag Birkhäuser. • Bartenbach, Christian; Witting, Walter (2009). Handbuch für Lichtgestaltung -lichttechnische und wahrnehmungspsychologische Grundlagen; Springer-Verlag, Wien • Heinz, Roland (2014). Grundlagen der Lichterzeugung- Von der Glühlampe bis zur LED, OLED und Laser; Verlag mbH Rüthen. • Zieseniß, Carl-Heinz: Beleuchtungstechnik für den Elektrofachmann- Lampen, Leuchten und ihre Anwendung; Verlag Hüthig, • Weis; Bruno; Finke, Hans (2011). Not- und Sicherheitsbeleuchtung; Verlag Hüthig & Pflaum.

Module Title	Inspection, Evaluation and Calculation			
Module Number	MLD C2			
Responsibility	DIAL			
Lecturers	Dipl.-Ing. Klaus Bieckmann, Dipl.-Ing. Cornelia Wuttke, Dipl.-Ing. Ariane Ignazak, Dipl.-Ing. Peter Schuster			
Course of study	Master Lighting Design (MLD)			
Status	Mandatory Module	x	Compulsory Module	
Use for MIAD	Mandatory Module		Compulsory Module	
Use for MIAR	Mandatory Module		Compulsory Module	
Use for MNBB	Mandatory Module		Compulsory Module	
Semester	1			
Forms of Teaching	Lectures, seminars, workshops			
Language	English			
Hours/Week (SWS)	2			
Hours/Week (SWS)	Lecture		Other	2
Workload (h)	Lecture	8	Laboratory	8
	Seminar	8	Workshop	8
	Excursion		Work Experience	
	Self Study	80	Exam Preparation	8
Total Workload (h)	120			
Credits	4			
Prerequisites	None			
Location	DIAL, Lüdenscheid			
Technical Instruments	Goniophotometer, Ulbricht Kugel			
Goals of Study, Competences	<ul style="list-style-type: none"> • This module will include basics of laws, regulations and norms for lighting design. • The students will learn and understand how to prepare and perform lighting measurements. • Students will learn how to work with a software to verify their lighting design. 			
Contents of Study	<ul style="list-style-type: none"> • The students will get an overview of measuring devices, norms and regulations. Which measurement can be measured by which devices? 			

	<ul style="list-style-type: none"> • Strategy and preparing checklist for propagate and execute measurements will be taught. Students get measurement experiences by practising und writing measurement reports. • Within this module the students will also learn how to verify their lighting design with a software (DIALux evo). Firstly the basics to design a building, to create objects and colouring or rather texturing surfaces will be issued. Secondly positioning luminaires, working with calculation surfaces und creating different light scenes will be explained. Integrating calculation of daylight. • Next step is the management of the calculation results and the issue of output - the documentation. Students will also learn how to create renderings for a presentation.
Forms of Exam	Presentation
Literature recommendation	<ul style="list-style-type: none"> • TRILUX GmbH & Co.KG (2007). Beleuchtungspraxis Innenbeleuchtung; Beuth Verlag GmbH • "licht.wissen" series of publications (PDF), http://en.licht.de/en/info-and-service/publications-and-downloads • LiTG: Guide to DIN EN 12464-1; Beuth Verlag GmbH, Berlin, 2013 • licht.de; • Further teaching material will be distributed via the Elearning platform ILIAS

Module Title	Lighting Design			
Module Number	MLD C3			
Responsibility	DIAL			
Lecturers	Dipl.-Ing. Klaus Bieckmann, Dipl.-Ing. Cornelia Wuttke, Dipl.-Ing. Ariane Ignazak			
Course of study	Master Lighting Design (MLD)			
Status	Mandatory Module	x	Compulsory Module	X
Use for MIAD	Mandatory Module		Compulsory Module	
Use for MIAR	Mandatory Module		Compulsory Module	
Use for MNBB	Mandatory Module		Compulsory Module	
Semester	1			
Forms of Teaching	Lectures, seminars, workshops			
Language	English			
Hours/Week (SWS)	2			
Hours/Week (SWS)	Lecture	1	Other	1
Workload (h)	Lecture	12	Laboratory	
	Seminar	12	Workshop	6
	Excursion		Work Experience	
	Self Study	80	Exam Preparation	10
Total Workload (h)	120			
Credits	4			
Prerequisites	None			
Location	DIAL, Lüdenscheid			
Technical Instruments	Goniophotometer, Ulbricht Kugel			
Goals of Study, Competences	<ul style="list-style-type: none"> • This module will cover the basic understanding of perception as a factor for lighting design and the quality of daylight. • Students will learn different design processes and how to analyse the design. Important for this is to understand the language of light and the different lighting concept theories: psychology, architecture, needs and time. • Understanding and planning different types of lighting strategies. • An overview of luminaire arrangements, dimensioning and 			

	presentation of the concept.
Contents of Study	<ul style="list-style-type: none"> • The students will work in a team to create a lighting design for an interior space. • They will learn how to analyse architecture, to consider the use and the needs of the people and to plan the optimal light. Their tools will be pencil and paper. • They will experience lighting strategies at the DIAL White Laboratory. • During the course the students will be trained for all stages: from the concept to the presentation and the implementation at the end.
Forms of Exam	Presentation and assignment
Literature recommendation	<ul style="list-style-type: none"> • Major, Mark; Speirs, Jonathan; Tischhauser, Anthony (2005). Made of Light - The Art of Light and Architecture, • Keller, Max (2010). THE ART AND DESIGN OF STAGE LIGHTING; Prestel Publishing • Schulz, Andreas (Hrsg.) (2007). LICHT KUNST LICHT 2, Lichtdesign für Architektur, avedition, Ludwigsburg. • Ganslandt, Rüdiger; Hofmann, Harald (1992). Handbook of Lighting Design; ERCO Edition: Vieweg. The book is unfortunately out of print, a digital version as PDF is available: www.erco.com/download/en/media/handbook • Lichtwissen

Module Title	Urban Lighting			
Module Number	MLD C4			
Responsibility	HS-OWL			
Lecturers	Prof. Mary-Anne Kyriakou, Prof. Dipl.-Ing. Martin Hoelscher, Dipl.-Ing. Peter Schuster			
Course of study	Master Lighting Design (MLD)			
Status	Mandatory Module	x	Compulsory Module	
Use for MIAD	Mandatory Module		Compulsory Module	x
Use for MIAR	Mandatory Module		Compulsory Module	x
Use for MNBB	Mandatory Module		Compulsory Module	x
Semester	1			
Forms of Teaching	Lectures, Seminars, workshops			
Language	English			
Hours/Week (SWS)	2			
Hours/Week (SWS)	Lecture		Other	2
Workload (h)	Lecture	8	Laboratory	8
	Seminar	8	Workshop	8
	Excursion		Work Experience	
	Self Study	80	Exam Preparation	10
Total Workload (h)	120			
Credits	4			
Prerequisites	None			
Location	DIAL, Lüdenscheid			
Technical Instruments	Mobile Luxmeter and luminance meter			
Goals of Study, Competences	<ul style="list-style-type: none"> The students will develop the concept for a lighting master-plan and investigate urban lighting strategies 			
Contents of Study	<ul style="list-style-type: none"> Light Pollution and its effects, Facade Lighting investigation and equipment and light fixture types used in urban space and how light is used to create safety and bring about the character of a city. 			
Forms of Exam	Elaboration and Presentation			

Literature

- Corrodi / Spechtenhauser (2008). LichtEinfall: Tageslicht im Wohnbau. Birkhäuser Gmbh ISBN 9783764386344
- Millet, Marietta S. (2008). Light Revealing Architecture. Wiley
- Steane, Mary Anne (2011). The Architecture of Light, Routledge, ISBN 9780415394796
- Neumann (2010). The Structure of Light: Richard Kelly and the Illumination of Modern Architecture. Yale Univ Pr ISBN 9780300163704
- Moore (1991). Concepts and Practice of Architectural Day-lighting, John Wiley & Sons Inc. ISBN 9780442006792

Module Title	Project Advanced Lighting Design			
Module Number	MLD P1			
Responsibility	HS-OWL			
Lecturers	Prof. Mary-Anne Kyriakou, Prof. Dr. med. Manfred Pilgramm, Prof. Dipl.-Ing Ulrich Nether, Dipl.-Ing. Peter Schuster			
Course of study	Master Lighting Design (MLD)			
Status	Mandatory Module	x	Compulsory Module	
Use for MIAD	Mandatory Module		Compulsory Module	
Use for MIAR	Mandatory Module		Compulsory Module	
Use for MNBB	Mandatory Module		Compulsory Module	
Semester	2			
Forms of Teaching	Seminars, workshops			
Language	English			
Hours/Week (SWS)	4			
Hours/Week (SWS)	Lecture	1	Other	3
Workload (h)	Lecture	15	Laboratory	15
	Seminar	20	Workshop	10
	Excursion		Work Experience	
	Self Study	210	Exam Preparation	30
Total Workload (h)	300			
Credits	10			
Prerequisites	None			
Location	HS OWL, Detmold			
Technical Instruments	Goniophotometer, Ulbricht Kugel			
Goals of Study, Competences	<ul style="list-style-type: none"> • The purpose of this project is the enhancement of knowledge gained in the previous Lighting Design courses. • In this module the student has the possibility to explore a design application and develop a research project that investigates aspects of light and perception making use of bio-feedback equipment 			
Contents of Study	<ul style="list-style-type: none"> • The content that will be covered within this module include framing a scientific enquiry, producing and carrying out a survey, investigating and analysing the real-life environment, test 			

	<p>lighting conditions and environments on space users,</p> <ul style="list-style-type: none"> • review and evaluate the results of the survey, • produce a report and poster for the international conference.
Forms of Exam	Elaboratio with Presentation and Colloquium
Literature	<p>Die Praxis der Lichtplanung</p> <ul style="list-style-type: none"> • Office for Visual Interaction OVI (2013). Lighting Design and Process. Jovis Verlag Germany, ISBN 978-3-86859-256-6 • Brandi, Ulrike; Geissmar-Brandi, Christoph (2001). Lichtbuch: Die Praxis der Lichtplanung. Birkhäuser ISBN 3-7643-6302-9 • Sage Russell (2012). The Architecture of Light, Second Edition, Printed in USA. • ISBN-13: 978-0-9800617-1-0 • Storey, Sally (2010). Schönes Wohnen mit Licht. Christophorus Verlag ISBN 9783838831596 • Entwistle, Jill (2011). Detail in Contemporary Lighting Design. Laurence King Publishing Ltd London ISBN 978 1 78067 010 2 • Klinger, Johannes (2007). Farbe und Licht für eine neue innenarchitektur. DVA Printed in Germany ISBN 978 –3-421-03570-7 • Benad (2010). Farbgestaltung Innenraum, Deutsche Verlags-Anstalt ISBN 9783421035875

Module Title	Project Best Practice			
Module Number	MLD P2			
Responsibility	HS-OWL / DIAL			
Lecturers	Prof. Mary-Anne Kyriakou, Prof. Dr.-Ing. Uta Pottgiesser, Dr. ir. M.B.C. Myriam Aries (TU Eindhoven), Dipl.-Ing. Klaus Bieckmann, Dipl.-Ing. Cornelia Wuttke, Dipl.-Ing. Ariane Ignazak, Thomas Pittner M.Sc., Dipl.-Ing. Jürgen Spitz			
Course of study	Master Lighting Design (MLD)			
Status	Mandatory Module	x	Compulsory Module	
Use for MIAD	Mandatory Module		Compulsory Module	
Use for MIAR	Mandatory Module		Compulsory Module	
Use for MNBB	Mandatory Module		Compulsory Module	
Semester	2			
Forms of Teaching	Seminars, workshops			
Language	English			
Hours/Week (SWS)	4			
Hours/Week (SWS)	Lecture		Other	4
Workload (h)	Lecture		Laboratory	15
	Seminar	35	Workshop	10
	Excursion		Work Experience	
	Self Study	210	Exam Preparation	30
Total Workload (h)	300			
Credits	10			
Prerequisites	None			
Location	HS OWL, Detmold / DIAL, Lüdenscheid			
Technical Instruments	Goniophotometer, Ulbricht Kugel			
Goals of Study, Competences	<ul style="list-style-type: none"> • The purpose of this project is the enhancement of knowledge gained in the previous Lighting Design courses. • The students will select their own project 			
Contents of Study	<ul style="list-style-type: none"> • Independent project analysis relating to psychology, architecture and zoning aspects • Independent development of their lighting design • Work out of illuminance and luminance values 			

	<ul style="list-style-type: none"> • Application of light scenes • Documentation and visualisation of the project (digital or modelling) for the international Light Conference Light+Building (every 2 years) or another international Seminar or Light Workshop
Forms of Exam	Elaboratio with Presentation and Colloquium
Literature	<p>Die Praxis der Lichtplanung</p> <ul style="list-style-type: none"> • Office for Visual Interaction OVI (2013) Lighting Design and Process. Jovis Verlag Germany, ISBN 978-3-86859-256-6 • Brandi, Ulrike; Geissmar-Brandi, Christoph (2001). Lichtbuch: Die Praxis der Lichtplanung. Birkhäuser ISBN 3-7643-6302-9 • Russell, Sage (2012) The Architecture of Light, Second Edition, Printed in USA. • ISBN-13: 978-0-9800617-1-0 • Storey, Sally (2010). Schönes Wohnen mit Licht. Christophorus Verlag ISBN 9783838831596 • Entwistle, Jill (2011). Detail in Contemporary Lighting Design. Laurence King Publishing Ltd London ISBN 978 1 78067 010 2 • Klinger, Johannes (2007). Farbe und Licht für eine neue innenarchitektur. DVA Printed in Germany ISBN 978 –3-421-03570-7 • Benad (2010). Farbgestaltung Innenraum, Deutsche Verlags-Anstalt ISBN 9783421035875 <p>Warnehmung/Perception</p> <ul style="list-style-type: none"> • Nänni, Jürg (2008). <i>Visuelle Warnehmung/Visual Perception</i>, Niggli Verlag, Switzerland ISBN 978-3-7212-0618-0 • Boyce, Peter R. (2003). <i>Human Factors in Lighting</i>, Second Edition. Lighting Research Center, Printed in Great Britain ISBN 0-7484-0949-1

Module Title	Interiors - Exhibition Lighting			
Module Number	MLD E1			
Responsibility	HS-OWL			
Lecturers	Prof. Mary-Anne Kyriakou, Prof. MA Jörg Kiefel, Prof. Dipl.-Ing. Carsten Wiewiorra,			
Course of study	Master Lighting Design (MLD)			
Status	Mandatory Module		Compulsory Module	x
Use for MIAD	Mandatory Module		Compulsory Module	x
Use for MIAR	Mandatory Module		Compulsory Module	x
Use for MNBB	Mandatory Module		Compulsory Module	
Semester	1			
Forms of Teaching	Seminars, workshops			
Language	English			
Hours/Week (SWS)	2			
Hours/Week (SWS)	Lecture		Other	2
Workload (h)	Lecture		Laboratory	
	Seminar	5	Workshop	15
	Excursion	10	Work Experience	
	Self Study	80	Exam Preparation	10
Total Workload (h)	120			
Credits	4			
Prerequisites	Inspection, Evaluation and Calculation			
Location	HS OWL, Detmold			
Technical Instruments	Goniophotometer, Ulbricht Kugel			
Goals of Study, Competences	<ul style="list-style-type: none"> • This module is to make students understand the fundamentals of lighting with regards to exhibition spaces. • Students will learn how to light the sculptures, artworks and the exhibition space. 			
Contents of Study	<ul style="list-style-type: none"> • The content covered includes case studies and site visits to gallery spaces and analysing the artificial and daylighting systems used in the general spaces and gallery spaces. • The students will produce a concept, daylight strategy and lighting design. 			

Forms of Exam	Presentation and Colloquium
Literature recommendation	<p>Interiors – Exhibition Lighting</p> <ul style="list-style-type: none"> • Erco (2009) <i>Lichtpositionen</i>, Printed in Germany ISBN 978-3-9813216-0-9 • Good Lighting for Museums, Galleries and Exhibitions • Office for Visual Interaction OVI (2013) <i>Lighting Design and Process</i>. Jovis Verlag Germany, ISBN 978-3-86859-256-6 • Brandi, Ulrike; Geissmar-Brandi, Christoph (2001). <i>Lichtbuch: Die Praxis der Lichtplanung</i>. Birkhäuser ISBN 3-7643-6302-9 • Russell, Sage (2012) <i>The Architecture of Light</i>, Second Edition, Printed in USA.

Module Title	Public Space - Light Art			
Module Number	MLD E2			
Responsibility	HS-OWL			
Lecturers	Prof. Bettina Pelz, Prof. Dipl.-Ing. Kahtrin Volk,			
Course of study	Master Lighting Design (MLD)			
Status	Mandatory Module		Compulsory Module	x
Use for MIAD	Mandatory Module		Compulsory Module	x
Use for MIAR	Mandatory Module		Compulsory Module	x
Use for MNBB	Mandatory Module		Compulsory Module	
Semester	1			
Forms of Teaching	Seminars, workshops			
Language	English			
Hours/Week (SWS)	2			
Hours/Week (SWS)	Lecture		Other	2
Workload (h)	Lecture		Laboratory	
	Seminar	15	Workshop	15
	Excursion		Work Experience	
	Self Study	80	Exam Preparation	10
Total Workload (h)	120			
Credits	4			
Prerequisites	Inspection, Evaluation and Calculation			
Location	HS OWL, Detmold			
Technical Instruments	Goniophotometer, Ulbricht Kugel			
Goals of Study, Competences	<ul style="list-style-type: none"> The learning outcomes for this module include an overview of the role of light art in public space as well as exploring case studies. The students will develop an understanding of the process and content of light art works. 			
Contents of Study	<ul style="list-style-type: none"> Students will attend a light festival and prepare a report on the experience of light in public space. Relationship between Art, Society and Public Space 			
Forms of Exam	Presentation and Colloquium			

Literature	Lichtkunst – Light Art – Public Space <ul style="list-style-type: none">• Jackson, Davina; Kyriakou, Mary-Anne (2015). Superlux. Thames and Hudson, ISBN: 9780500343043• Haeusler, Hank (2009). Media Facades: History, Technology Content. Media Architecture Institute• Cook, Graham (2010). Rethinking Curating. MIT Press• Neumann, Dietrich, Stern, Robert A. M. and D. Michelle Ad-dington (2010). The Structure of Light: Richard Kelly and the Illumination of Modern Architecture. New Haven: Yale Univ Pr.
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Module Title	Product Development - Light Fixtures			
Module Number	MLD E3			
Responsibility	HS-OWL			
Lecturers	Prof. Mary-Anne Kyriakou, Prof. Dipl.-Ing. Ulrich Nether, Dipl. - Ing. Peter Schuster, Dipl.-Ing. David Lemberski, Dipl.-Ing. Guido Brand			
Course of study	Master Lighting Design (MLD)			
Status	Mandatory Module	x	Compulsory Module	X
Use for MIAD	Mandatory Module		Compulsory Module	
Use for MIAR	Mandatory Module		Compulsory Module	
Use for MNBB	Mandatory Module		Compulsory Module	
Semester	1			
Forms of Teaching	Seminars, workshops			
Language	English			
Hours/Week (SWS)	2			
Hours/Week (SWS)	Lecture		Other	2
Workload (h)	Lecture		Laboratory	15
	Seminar		Workshop	15
	Excursion	n	Work Experience	
	Self Study	80	Exam Preparation	10
Total Workload (h)	120			
Credits	4			
Prerequisites	Inspection, Evaluation and Calculation			
Location	HS OWL, Detmold			
Technical Instruments	Goniophotometer, Ulbricht Kugel			
Goals of Study, Competences	The student will develop an understanding of materials used in architectural lighting manufacture and develop a light fixture with a reflector. The student will carry out measurements using the goniophotometer.			
Contents of Study	The history of lighting products, lighting manufacturing methods including reflector and diffuser design. The student will investigate materials used for lighting manufacture and develop a light fixture.			

Forms of Exam	Elaboration (Light Fixture) and Presentation
Literature recommendation	<p>LichtTechnik – Product Development</p> <ul style="list-style-type: none"> • Erco (2009). Lichtpositionen, Printed in Germany ISBN 978-3-9813216-0-9 • Gall, Dietrich (2004). Grundlagen der Lichttechnik. Pflaum Printed in Germany ISBN 978-3-7905-0956-4 • Storey, Sally (2010). Schönes Wohnen mit Licht: Beleuchtungskonzepte für Innenräume und Außenanlagen. 1. Aufl. Freiburg, Br.: Christophorus Verlag. • Brandi, Ulrike (2006). Lighting Design. Birkhäuser Edition Detail • Descottes, Herve, and Cecilia E. Ramos (2011). Architectural Lighting: Designing with Light and Space. New York: Princeton Architectural P. • Corrodi, Michelle and Spechtenhauser, Klaus (2008). LichtEinfall: Tageslicht im Wohnbau. Auflage: 1. Zürich; Basel etc.: Birkhäuser GmbH.

Module Title	Masterthesis			
Module Number	MLD T			
Module Responsibility	All professors			
Lecturer	from the course, all external letcurers from external partners can act as supervisors for the thesis.			
Course of Study	Master Lighting Design (MLD)			
Status	Mandatory Module	x	Compulsory Module	
Use for MIAR	Mandatory Module		Compulsory Module	
Use for MNBB	Mandatory Module		Compulsory Module	
Use for MLD	Mandatory Module		Compulsory Module	
Semester	4			
Forms of Teaching	Self-organized final project for the master course; Literature on digital media (via ILIAS); selected feedbacks and critics;			
Language of Teaching	English			
Hours per Week (SWS)	0,4			
Hours per Week (SWS)	Lecture		Other	0,4
Workload(h)	Lecture		Laboratory	3
	Seminar		Workshop	2
	Excursion		Work Experience	
	Self Study	850	Exam Preparation	45
Workload total (h)	900			
Credits	30			
Prerequisites	All Modules of the master course			
Location	HS OWL, Detmold; DIAL, Lüdenscheid,			
Technical Instruments	Goniophotometer, Ulbricht Kugel			
Goal of study / Competences	<ul style="list-style-type: none"> • Production and documentation of independent solutions to complex problems using scientific knowledge and methods within a prescribed deadline. • understanding of in-depth and skilled scientific knowledge and approaches relating to design and construction of a technical and methodological nature. • produce responsible solutions to complex problems both in practice and in research and development in a scientific man- 			

	ner using skilled design, construction, technical and methodological knowledge and abilities.
Contents of Study	<ul style="list-style-type: none"> • participants obtain list of topics that are offered by the docents, • own topics can be chosen after coordinating with the board of examination and the first supervisor, • specific topics can be chosen in cooperation with external and industry partners, • the master thesis normally consists of an independent project design with a methodological, technical-constructional design and planning organisation assignment, • depending on the type of assignment, a draft, a model, a piece of work or a written or digital composition should be prepared, • the master thesis may also be a theoretical work with specialist content.
Forms of Exam	Elaboration with presentation and colloquium
Literature	<ul style="list-style-type: none"> • Papers on digital media (CD-ROM / Internet / e-learning), • Company's records and documents • Literature depending on the topic