Hochschule Wismar University of Applied Sciences: Technology, Business and Design

Faculty of Architecture and Design

Master's Degree Course Architectural Lighting Design

Course Schedule

in accordance with the *Prüfungs- und Studienordnung* (hereinafter Study and Examination Regulations) for the **master's degree course Architectural Lighting Design** of 19 May 2017.

The English translation of the Modulhandbuch für den Master-Studiengang Architectural Lighting Design der Hochschule Wismar University of Applied Sciences: Technology, Business and Design is intended solely as a convenience to non-German-reading students/members of the university. Only the German text published on Hochschule Wismar's website on the [DD MONTH YEAR] is legally binding. In the event of any conflict between the English and German text, its structure, meaning or interpretation, the German text, its structure, meaning or interpretation.

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Name of module	CM 01 Lighting Design/Daylight
Topic	Light and space, daylight and architecture, introduction to designing with light, introduction to using daylight for lighting
Contents	The students shall develop an analytical understanding of architecture and use this to understand the complex interactions between space, material/surface/colour, social situation and light, and to understand their effect on the visual perception of humans. The knowledge gained from the analysis shall be adopted for own lighting plans. Furthermore, study examples help students to learn the basics of using daylight for lighting and its effects on the perception of architecture or space will be explained. This will be done by analysing the sun's course and, for example, discussing the use of sun path charts to visualise the path of the sun. The students should be provided with the skills for using the gained knowledge to draw conclusions for systems that influence daylight.
Qualification Objective	The objective is to gain the ability to understand and plan the importance of the use of light for illuminating a specific, spatial and social situation whilst taking the factors related to perception into account.
Types of Teaching and Learning	Seminar tuition
Prerequisites for participation	English language skills
Can be selected for	(e.g. other degree courses)
Duration	1 semester with 16 Weeks x 4 SWS (contact hrs./week)
Frequency of offer	Winter semester
Workload	Seminar tuition: 64 hrs. Self study: 116 hrs. Total: 180 hrs.
Credit points	6 CR
Kind and scope of course-related examinations:	Alternative type of examination
Number of possible participants	

Name of module	CM o2 Lighting Science
Topic	Scientific and technical introduction to lighting
Contents	The students should get to know the basic physical, technical and perceptual principles of the planning of light and apply them to simple examples.
Qualification Objective	The aim is for students to gain the ability to describe light using these parameters and to analyse and evaluate a space from a daylight and artificial lighting perspective. Furthermore, the students should adopt the techniques they have learned for their own lighting plans and learn how to use the techniques for evaluating such plans.
Types of Teaching and Learning	Seminar tuition
Prerequisites for participation	English language skills
Can be selected for	(e.g. other degree courses)
Duration	1 semester with 16 Weeks x 4 SWS (contact hrs./week)
Frequency of offer	Winter semester
Workload	Seminar tuition: 64 hrs. Self study: 116 hrs. Total: 180 hrs.
Credit points	6 CR
Kind and scope of course-related examinations:	Alternative type of examination
Number of possible participants	

Name of module	CM 03 Design Project I
Topic	Design-Oriented Project
Contents	Students shall discover design possibilities using light in experiments and simple lighting plans, e.g. for outdoor space, and learn how to define their own design goals.
Qualification Objective	The students should get to know the specific design process for lighting plans and develop their own design method that corresponds with their previous individual experience. The course discusses the international mix of students with various cultural and education backgrounds and uses this as additional knowledge potential.
Types of Teaching and Learning	Project Work
Prerequisites for participation	English language skills
Can be selected for	(e.g. other degree courses)
Duration	1 semester with 16 Weeks x 6 SWS (contact hrs./week)
Frequency of offer	Winter semester
Workload	Project work. 96 hrs. Self study: 174 hrs. Total: 270 hrs.
Credit points	9 CR
Kind and scope of course-related examinations:	Design project that lasts 16 weeks
Number of possible participants	

Name of module	CM 04 Lighting Design and Technology I
Topic	Typological consideration of lighting, visualisation, light design
Contents	The analysis and design of certain case studies (e.g. lighting in offices) are used to develop typological requirements from a technical, physically perceptual and socio-cultural point of view. Working on an example, students hone their skills for using visualisation programmes and proving lighting parameters using calculations. The course also looks at solutions for design tasks of medium complexity that are based on problems of industrial design and include related fields of study.
Qualification Objective	Students shall get to know the relationship between architecture/types of use and lighting plan requirements. Students learn how to visualise solutions and implement them down to the last detail.
Types of Teaching and Learning	Seminar tuition
Prerequisites for participation	English language skills
Can be selected for	(e.g. other degree courses)
Duration	1 semester with 16 Weeks x 4 SWS (contact hrs./week)
Frequency of offer	Summer semester
Workload	Seminar tuition: 64 hrs. Self study: 116 hrs. Total: 180 hrs.
Credit points	6 CR
Kind and scope of course-related examinations:	Alternative type of examination
Number of possible participants	

Name of module	CM 05 Lighting Design and Sustainability I
Topic	Light/daylight and indoor environment of buildings, lighting control, building automation
Contents	Students shall get to know the connection between lighting plans and indoor environments. The students shall learn that the integration of the lighting plan in the overall energy concept of the building is an important component criterion for sustainable planning. Students get to know the thermodynamic conditions of a building and about the possibility of integrating the lighting systems in a building automation system.
Qualification Objective	The students are provided with the skills for making independent decisions about the influence of daylight and artificial light on the building's indoor environment and, for example, the use of various possibilities for lighting control and building automation (e.g. bus systems) when solving complex lighting problems.
Types of Teaching and Learning	Seminar tuition
Prerequisites for participation	English language skills
Can be selected for	(e.g. other degree courses)
Duration	1 semester with 16 Weeks x 4 SWS (contact hrs./week)
Frequency of offer	Summer semester
Workload	Seminar tuition: 64 hrs. Self study: 116 hrs. Total: 180 hrs.
Credit points	6 CR
Kind and scope of course-related examinations:	Alternative type of examination
Number of possible participants	

Name of module	CM o6 Design Project II
Topic	Design project that focuses on realisation
Contents	The student shall get to know the design possibilities provided by light by working on a specific design task (e.g. for an interior) and implement their own design goals, whilst checking their technical viability in theory, using calculations and experiments.
Qualification Objective	The goal is to refine the specific steps of the design process for lighting plans and to develop the students' own design method.
Types of Teaching and Learning	Project Work
Prerequisites for participation	English language skills
Can be selected for	(e.g. other degree courses)
Duration	1 semester with 16 Weeks x 6 SWS (contact hrs./week)
Frequency of offer	Summer semester
Workload	Project work. 96 hrs. Self study: 174 hrs. Total: 270 hrs.
Credit points	9 CR
Kind and scope of course-related examinations:	Design project that lasts 16 weeks
Number of possible participants	

Name of module	CM 07 Lighting Design and Technology II
Topic	Outside of University (consolidation of CM 04)
Contents	The students shall enhance the knowledge they have already gained for fulfilling planning requirements that are defined by architectural typology by working on practical assignments that are set in collaboration with practice partners. Whilst working on these tasks, students will consolidate their skills for using special light simulation and calculation programmes.
Qualification Objective	In addition to the findings related to architectural lighting, the work should also assess its own academic relevance.
Types of Teaching and Learning	Project Work
Prerequisites for participation	English language skills, successful participation in CM 04
Can be selected for	
Duration	1 semester with 16 Weeks x 1 SWS (contact hrs./week)
Frequency of offer	Winter semester
Workload	Project work. 16 hrs. Self study: 164 hrs. Total: 180 hrs.
Credit points	6 CR
Kind and scope of course-related examinations:	Alternative type of examination
Number of possible participants	

Name of module	CM o8 Lighting Design and Sustainability II
Topic	Outside of University (consolidation of CM o5)
Contents	Students should consolidate the knowledge they have already gained by investigating the connection of lighting plans and the overall planning of the buildings and their technical viability, possibly in interaction with further automation components using practical assignments that are set in collaboration with practice partners.
Qualification Objective	If possible, students should train their ability to work in teams and on joint interdisciplinary projects. The academic relevance of the assignment and possibly the chosen solution should also be assessed.
Types of Teaching and Learning	Project Work
Prerequisites for participation	English language skills, successful participation in CM 05
Can be selected for	
Duration	1 semester with 16 Weeks x 1 SWS (contact hrs./week)
Frequency of offer	Winter semester
Workload	Project work. 16 hrs. Self study: 164 hrs. Total: 180 hrs.
Credit points	6 CR
Kind and scope of course-related examinations:	Alternative type of examination
Number of possible participants	

Name of module	CM 09 Practice Project
Topic	Outside of University (consolidation of CM o6)
Contents	The students should consolidate the skills they have already gained in designing lighting solutions by working on a specific planning task or answering academic questions that are formulated in cooperation with practice partners.
Qualification Objective	The goal is to refine the specific steps of the design process for lighting plans and to develop the students' own design methods.
Types of Teaching and Learning	Project Work
Prerequisites for participation	English language skills
Can be selected for	
Duration	1 semester with 16 Weeks x 1 SWS (contact hrs./week)
Frequency of offer	Winter semester
Workload	Project work. 16 hrs. Self study: 164 hrs. Total: 180 hrs.
Credit points	6 CR
Kind and scope of course-related examinations:	Alternative type of examination
Number of possible participants	

Name of module	CM 10 Lighting Design and Economics
Topic	Development of strategic approaches for the efficiency of architectural lighting design firms.
Contents	Students gain the ability to visualise the chances and risks of a project using a business plan: Based on academic managerial approaches, students develop the strategic concept for an architectural lighting design firm according to the following steps that are then combined to create a business plan: - Analysis of business perspectives for architectural lighting design firms Analysis of clients' needs - Development of a company philosophy - Strategy development based on analyses - Development of concepts for realisation - Creation of a business plan that integrates all of the analyses.
Qualification Objective	Students understand the connection between managerial analyses, strategic managerial action and project work in architectural lighting design firms. After completing the module, students are in a position to analyse clients' needs and markets, to recognise and weigh up chances and risks and to apply their knowledge of strategic management to practice situations independently and at their own responsibility.
Types of Teaching and Learning	Seminar tuition
Prerequisites for participation	English language skills
Can be selected for	(Compulsory elective module in the master's degree course Architecture)
Duration	1 semester with 16 Weeks x 4 SWS (contact hrs./week)
Frequency of offer	Summer semester
Workload	Project work. 64 hrs. Self study: 116 hrs. Total: 180 hrs.
Credit points	6 CR
Kind and scope of course-related examinations:	Alternative type of examination
Number of possible participants	

Name of module	CM 11 Foreign Language
Topic	Foreign language: • Technical English/Business English • English (for non-native speakers)
Contents	In the first semester, students acquire specific technical English knowledge (ESP – English for Specific Purposes) needed for this Master programme. Students learn to define terms and units in the English language, to describe lamp types and light sources, and to reflect and professionally express and discuss their own opinions regarding different qualities of light, sustainability and other relevant issues. The second semester focuses on using the English language in a professional context. Students gain an understanding of and linguistic practice in using diplomatic business language, managing discussions and correspondence, and negotiating. An additional topic is the application process (international standards for cover letters, CVs, résumés and interviews), which coincides with the timing of the students' actual internship applications.
Qualification Objective	The goal of this subject is twofold: Firstly, students acquire ESP vocabulary, terms and expressions, which provide them with a sound linguistic basis for the degree course and their future professional careers. Secondly, students learn to use the English language as a tool for a wide range of aspects of professional communication in the field of lighting design and beyond.
Types of Teaching and Learning	Seminar tuition
Prerequisites for participation	English language skills
Can be selected for	(e.g. other degree courses)
Duration	1 semester with 16 Weeks x 4 SWS (contact hrs./week)
Frequency of offer	Winter semester
Workload	Seminar tuition: 64 hrs. Self study: 116 hrs. Total: 180 hrs.
Credit points	6 CR
Kind and scope of course-related examinations:	Alternative type of examination
Number of possible participants	
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Name of module	CM 12 Excursion
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Topic	The excursion with preparatory seminar takes students to visit light manufacturers and lighting applications on site.
Contents	The practical look at the production and sales processes should teach the students the framework conditions for light production and their influence on the planning.
Qualification Objective	Students shall advance their ability to analyse the industry's products critically and to assess the possibilities for further development.
Types of Teaching and Learning	Seminar tuition/field trip
Prerequisites for participation	English language skills
Can be selected for	
Duration	1 Excursion of 5 days, equivalent to 2 SWS (contact hrs./week)
Frequency of offer	Summer semester
Workload	Seminar tuition: 12 hrs. Self study: 38 hrs. Excursion: 40 hrs. Total: 90 hrs.
Credit points	3 CR
Kind and scope of course-related examinations:	Participation
Number of possible participants	

Name of module	CM 13 Dissertation Seminar
Topic	The contents of the dissertation seminar match the topic of the master's dissertation. The module runs in parallel to the writing-up of the dissertation.
Contents	The examination of the theory behind the dissertation topic's design and/or project task should help the write-up process.
Qualification Objective	The course aims to support students with the academic and methodological side of their dissertations. The students shall train their ability to use a methodological approach for solving a specific problem, using their master's dissertation as an example.
Types of Teaching and Learning	Seminar tuition
Prerequisites for participation	English language skills
Can be selected for	
Duration	1 semester with 16 Weeks x 2 SWS (contact hrs./week)
Frequency of offer	Summer semester/winter semester
Workload	Seminar tuition: 32 hrs. Self study: 58 hrs. Total: 90 hrs.
Credit points	3 CR
Kind and scope of course-related examinations:	Alternative type of examination
Number of possible participants	

Name of module	CM 14 Master's Dissertation
Topic	Project work in the field of 'Architectural Lighting Design' and other subject-related topics
Qualification Objective	The students master the contents and methods of the specialist area that they have chosen for their master's degrees. They apply their academic and/or artistic knowledge and are able to present their work results in written, visual and verbal form.
Types of Teaching and Learning	The master's dissertation is a non-supervised piece of work. Consultations can take place depending on the stage of the writing- up period.
Prerequisites for participation	English language skills
Can be selected for	
Duration	12 weeks
Frequency of offer	Summer semester/winter semester
Workload	Self study: 729 hrs. (Writing-up period 630 hrs., preparation for colloquium 99 hrs.)* Colloquium 1 hr. * preparation for the colloquium and the colloquium are not included in the writing-up period of 12 weeks
Credit points	24 CR (21 CR project work/3 CR colloquium)
Kind and scope of course-related examinations:	Marked coursework 1: Project work. 630 hrs. Marked coursework 2: oral examination OE 20 (colloquium)
Number of possible participants	

Course Schedule Master's Degree Course Architectural Lighting Design

Compulsory Elective Modules

<u>Five</u> compulsory elective modules must be freely selected from the compulsory elective modules CEM 01 to CEM 05. They must be completed successfully, giving the students a total of 15 Credit Points.

Up to three compulsory elective modules can be selected from other master's degree courses on offer at UAS Wismar.

On written request from the student, the Examination Board will decide which of the compulsory elective modules (CEM 01 to CEM 05) they will be assigned to before the student takes the compulsory elective module.

Name of module	CEM o1 Light and Material
Topic	Material and light
Contents	A consolidation of specific areas that focus on the visibility of light and which are therefore of significant importance for the profession, should extend students' knowledge about the nature of light and the related methodological skills that can be used for planning
Qualification Objective	
Types of Teaching and Learning	Seminar tuition
Prerequisites for participation	English language skills
Can be selected for	(e.g. other degree courses)
Duration	1 semester with 16 Weeks x 2 SWS (contact hrs./week)
Frequency of offer	Winter semester/summer semester
Workload	Seminar tuition: 32 hrs. Self study: 58 hrs. Total: 90 hrs.
Credit points	3 CR
Kind and scope of course-related examinations:	Alternative type of examination
Number of possible participants	

Name of module	CEM 02 Light and Urban Space
Name of module	CLM 02 Light and Orban Space
Topic	Urban-planning aspects of light
Contents	The investigation of light in exterior spaces should consolidate the topic of light and architecture from various perspectives. Examples might include the lighting of individual objects, the interplay between the preservation of buildings and functional lighting, master plans, an analysis of the economic and social changes made possible by lighting.
Qualification Objective	The students shall be given the opportunity to consolidate their knowledge and gain skills relevant to the professional specialisation that they have chosen or for areas in which they have recognised deficits in their previous education.
Types of Teaching and Learning	Seminar tuition
Prerequisites for participation	English language skills
Can be selected for	(e.g. other degree courses)
Duration	1 semester with 16 Weeks x 2 SWS (contact hrs./week)
Frequency of offer	Winter semester/summer semester
Workload	Seminar tuition: 32 hrs. Self study: 58 hrs. Total: 90 hrs.
Credit points	3 CR
Kind and scope of course-related examinations:	Alternative type of examination
Number of possible participants	

Name of module	CEM 03 Light and Society
Topic	Socio-cultural relationships to light
Contents	Students will look at the relationships between light and specific areas of technical history, the civilisation process, art history or social sciences. In so doing, students shall consolidate their academic skills.
Qualification Objective	
Types of Teaching and Learning	Seminar tuition
Prerequisites for participation	English language skills
Can be selected for	(e.g. other degree courses)
Duration	1 semester with 16 Weeks x 2 SWS (contact hrs./week)
Frequency of offer	Winter semester/summer semester
Workload	Seminar tuition: 32 hrs. Self study: 58 hrs. Total: 90 hrs.
Credit points	3 CR
Kind and scope of course-related examinations:	Alternative type of examination
Number of possible participants	

Name of module	CEM 04 Light and Man
Topic	Relationships between human sciences and light
Contents	Students will look at the relationships between light and specific areas of human sciences, in particular medicine and psychology. In so doing, students shall consolidate their academic skills.
Qualification Objective	
Types of Teaching and Learning	Seminar tuition
Prerequisites for participation	English language skills
Can be selected for	(e.g. other degree courses)
Duration	1 semester with 16 Weeks x 2 SWS (contact hrs./week)
Frequency of offer	Winter semester/summer semester
Workload	Seminar tuition: 32 hrs. Self study: 58 hrs. Total: 90 hrs.
Credit points	3 CR
Kind and scope of course-related examinations:	Alternative type of examination
Number of possible participants	

Name of module	CEM 05 General Sciences
Topic	General sciences
Contents	General studies/subjects from other areas of study
Qualification Objective	
Types of Teaching and Learning	Seminar tuition
Prerequisites for participation	English language skills
Can be selected for	(e.g. other degree courses)
Duration	1 semester with 16 Weeks x 2 SWS (contact hrs./week)
Frequency of offer	Winter semester/summer semester
Workload	Seminar tuition: 32 hrs. Self study: 58 hrs. Total: 90 hrs.
Credit points	3 CR
Kind and scope of course-related examinations:	Alternative type of examination
Number of possible participants	