

CIGN Module Descriptor

Title of Module: Multi-platform Creative Production

Module ID:

Credits (national system): 4 **ECTS:** 4

Responsible Institution: Stuttgart Media University

Module Coordinator: Jörg Westbomke

Module Type: practice based course

Language: *German*

Prerequisites:

Profound knowledge in HTML and CSS is required for successful attendance of this course. In addition the participants should have acquired one programming language, so that basic knowledge about data structures and algorithms is already present.

Summary of Module:

This module will develop students' abilities and understanding in producing web artefacts and modern web user interfaces. Furthermore they will gain practical experience in programming using JavaScript/jQuery/D3.

The core content delivery comprises the following topics:

- Introduction
- selected algorithmic solutions
- JavaScript (language elements)
- JavaScript (event handling)
- Areas of application

CIGN Module Descriptor

Learning Outcomes:

At the end of this module the student will:

- L1. have basic knowledge of algorithms and data structures
- L2. know JavaScript as programming technology
- L3. be able to use JavaScript to design websites and web user interfaces

Learning Objectives:

Theoretical Principles	20%
Analyses	20%
Conception	20%
Realization	40%

Specialist Skills:

- Level 1: recognize & reproduce
- Level 2: comprehend & apply
- Level 3: compare & evaluate
- Level 4: connect, deepen & develop

Module Delivery Method(s):

 blended learning

This course uses a flip classroom approach. The participants prepare prior to the classroom session the provided learning material. During the classroom session the participants apply and intensify the gained knowledge by working on practical assignments supervised by the lecturer and additional tutors (optional). Only very few of the material is presented in classical "chalk and talk" situation.

Learning & Teaching Activities:

Lecture/Core Content Delivery	45 hours
Laboratory/Practical Demonstration/Workshop	8 hours
Asynchronous Class Activity	30 hours
Independent Study	60 hours
	143 Hours Total

CIGN Module Descriptor

Learning Material:

- JavaScript Tutorial (online)
- e-learning material presented via the LMS moodle
- manual and technical documentations (online)
- source code presented via the LMS moodle

Indicative Resources / Obligatory Readings:

- S. Münz: Professionelle Websites, Addison-Wesley, 2005
- S. Koch: JavaScript - Einführung, Programmierung und Referenz, dpunkt Verlag, 2006
- R. Steyer: JavaScript in 21 Tagen, Markt + Technik Verlag, 2003
- J. Keith: DOM Scripting, Apress, 2005
- H. Balzert: Basiswissen Web-Programmierung, W3L-Verlag, 2007
- R. S. King: Visual Storytelling with D3, Addison Wesley, 2015
- Th. H. Cormen, Ch. E. Leiserson, R. Rivest, C. Stein: Algorithmen - Eine Einführung, Oldenbourg Verlag, 2007

Feedback and Assessment Method(s):

project work

Costs of Subscription:

N/A