Faculty of Arts and Social Sciences
Media and Communication Studies

Syllabus

Technical Foundations of Digital Media and Digital Design

Course Code:	MKGB90
Course Title:	Technical Foundations of Digital Media and Digital Design
	Tekniska principer av digitala medier och digital design
Credits:	15
Degree Level:	Undergraduate level
Progressive Specialisation:	First cycle, has less than 60 credits in first-cycle course/s as entry requirements (G1F)

Major Field of Study:
MKA (Media and Communication Studies)

Course Approval
The syllabus was approved by the Faculty of Arts and Social Sciences 2019-08-22, and is valid from the Spring semester 2020 at Karlstad University.

Prerequisites
Registration on and at least 10 ECTS credits completed in the courses MKGA90 Professional Role, Jurisprudence and Ethics, 7.5 ECTS credits, MKGA91 Media Audiences in the Digital Age, 7.5 ECTS credits, and MKGA92 Social Media and Social Theory, 7.5 ECTS credits, or registration on and at least 10 ECTS credits completed in MKGB62 Strategic Digital Communication 30 ECTS credits, or equivalent

Learning Outcomes
Module 1 Digital Design, 7.5 ECTS cr
Upon completion of the module, the student should be able to:
- give an account of how simple web pages can be created with the help of basic markup and script-based programming languages,
- apply principles of strategic digital data analysis in the design of digital environments,

- describe the design process and design methods for developing strategic and target group adapted digital environments, and
- experiment visually with data flows in digital environments by means of relevant analytical tools.

Module 2 Data Infrastructures, 7.5 ECTS cr
Upon completion of the module, the student should be able to:
- explain the infrastructural principles of digital communication,
- describe the logic of the basic algorithms that structure social media platforms,
- review and evaluate different modes of digital data analysis and the types of digital data on which the analysis is based,
- describe conceptually how analytical tools can be developed in digital environments, and
- discuss controversial aspects of large-scale data collection in regard to reliability, validity, ethics, and the social construction of data.

Content
The course comprises two modules:
Module 1 Digital Design, 7.5 ECTS cr
The module deals with issues of design processes in digital environments and the importance of analytical methods for evaluating and developing services in these contexts. The focus is on the conceptualisation of data-driven development, e.g. by observing patterns of usage and integrating them into design processes. The students plan, design and develop strategically tailored digital environments drawing on areas such as usability design, search optimisation, and web analysis. The students also reflect upon the role of the data analyst in an organisation, including the specific challenges this role entails in terms of communication and coordination and the design of socially and ecologically sustainable processes. Instruction is in the form of lectures, workshops, seminars, and supervised group work.

Module 2 Data Infrastructure, 7.5 ECTS cr
The module aims towards a general understanding of the technological frameworks involved in digital media analysis. The practical components of module 1 are followed up by introducing technical and conceptual vocabulary of digital communication networks and data analysis, including protocols, algorithms, data typologies, and metrics. Special emphasis is on the practices of tracking and targeting online, both in terms of the strategies being applied and the underlying technical infrastructure. The module also provides an overview of the functionalities and structure of the most relevant social media platforms and skills in critically analysing the data flows between them. Students practise identifying connections between datafication and mechanisms of social sorting and categorisation, and engage in critical discussion of its societal consequences. Instruction is in the form of lectures, workshops, seminars, and supervised group work.

Reading List
See separate document.

Examination
Module 1 is assessed on the basis of a group work presented orally and in writing at a mandatory seminar, an individual written hand-in assignment, a written exam, and a written and oral group performance in reviewing another group's submission.

Module 2 is assessed on the basis of a group work presented orally and in writing at a mandatory seminar, an individual written hand-in assignment, a written exam, and a written and oral group performance in reviewing another group's submission.

If students have a decision from Karlstad University entitling them to special pedagogical support due to

a documented disability, the examiner has the right to give such students an adapted examination or to examine them in a different manner.

Grades
One of the grades Distinction (VG), Pass (G), or Fail (U) is awarded in the examination of the course.

Quality Assurance
Follow-up relating to learning conditions and goal-fulfilment takes place both during and upon completion of the course in order to ensure continuous improvement. Course evaluation is partly based on student views and experiences obtained in accordance with current regulations and partly on other data and documentation. Students will be informed of the result of the evaluation and of any measures to be taken.

Course Certificate
A course certificate will be provided upon request.

Additional information
The local regulations for studies at the Bachelor and Master levels at Karlstad University stipulate the obligations and rights of students and staff.