



Faculty of Arts and Social Sciences
Media and Communication Studies

Syllabus

Data Driven Web Design

Course Code:	MKGB98
Course Title:	Data Driven Web Design <i>Datadriven webbdesign</i>
Credits:	7.5
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 2026-02-24, and is valid from the Autumn semester 2026 at Karlstad University.

Prerequisites

Registered for, and at least 10 credits completed in, the courses MKGA90 Professional role, jurisprudence and ethics (7.5 credits), MKGA91 Media audiences in the digital age (7.5 credits), and MKGA92 Social media & social theory (7.5 credits), or registered for, and at least 10 credits completed in, MKGB62 Strategic digital communication (30 credits). An equivalence assessment can be made.

Learning Outcomes

Upon completion of the course, students should be able to

1. describe the role of HTML and CSS code in structuring, designing, and delivering web content,
2. describe the ETL (Extract, Transform, Load) process and its role in transforming raw server data into structured analysis,
3. apply content management system (CMS) configuration, theme settings, and publishing flows to create functional web environments,
4. apply data-driven design principles to improve the usability, navigation, and overall effectiveness of a website,
5. apply methods for search engine optimisation (SEO), technical performance, and accessibility requirements,
6. apply ethical principles and GDPR-compliant methods for data collection, consent management, and web publishing, and
7. analyse server logs, user behaviour, and digital measurement data to guide decisions concerning technology and design.

Content

The course focuses on the conceptualisation and practical application of data-driven development in digital environments. Central to the course is the use of content management systems (CMS), where students learn to configure platforms to balance design, functionality, and data collection.

Students explore the technical architecture of the web, including how a CMS integrates semantic HTML, CSS, and database content to create user experiences (UX). Students work at the intersection of UX principles and content strategy, using data-informed methods to optimise layout and navigation.

Technical performance is addressed from an optimisation and accessibility perspective, covering metadata for search engine optimisation (SEO metadata), mobile adaptation, and compliance with WCAG (Web Content Accessibility Guidelines). A substantial part of the course covers web analytics and data ethics, where students analyse server logs and user behaviour and implement frameworks for "Privacy by Design". This includes practical work with the ETL

(Extract, Transform, Load) process to move from raw data to insights, all within the framework of the GDPR and ethical data processing practices.

Reading List

See separate document.

Examination

Learning outcome 1 is assessed based on an individual written assignment.

Learning outcome 1 is also assessed together with learning outcomes 2 and 6 through an on-campus written exam.

Learning outcomes 3-5 and 7 are assessed in groups based on a web project, presented both in writing and orally.

Learning outcome 5 is also assessed together with learning outcome 6 based on a group written assignment.

Submissions for assessment must clearly indicate individual contributions.

If students have a decision from Karlstad University entitling them to Targeted Study 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 Pass with 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's and Master's levels at Karlstad University stipulate the obligations and rights of students and staff.