



Exchange programme Vrije Universiteit Amsterdam

Vrije Universiteit Amsterdam - Exchange programme Vrije Universiteit Amsterdam - 2024-2025

Exchange

Vrije Universiteit Amsterdam offers many English-taught courses in a variety of subjects, ranging from arts & culture and social sciences, neurosciences and computer science, to economics and business administration.

The International Office is responsible for course approval and course registration for exchange students. For details about course registration, requirements, credits, semesters and so on, please [visit the exchange programmes webpages](#).

Web Technology

Course Code	X_400488
Credits	6
Period	P3
Course Level	100
Language Of Tuition	English
Faculty	Faculty of Science
Course Coordinator	dr. J.R. van Ossenbruggen
Examiner	dr. J.R. van Ossenbruggen
Teaching Staff	mr. S. Ud Din, dr. J.R. van Ossenbruggen
Teaching method(s)	Practical, Lecture

Course Objective

Everyone uses the Web, but how was it originally built, how has it evolved to what it is now, and how might it further develop in the future? The objectives of this course are to enable the student to formulate answers to these questions. While the course is primarily focused on technological aspects, as a professional in academia or industry, you need to be able to relate technological developments on the Web to relevant trends in science and society in general.

At the end of the course, students will be able to:

- **Knowledge and understanding:** Understand, on an introductory level, the key ideas, languages, and protocols underlying the Web.
- **Applying knowledge and understanding:** Be able to apply this knowledge by designing and implementing a basic Web application.
- **Making judgements:** Be able to validate and reflect on the impact of technical design decisions on the functionality and usability in a Web context.

Course Content

The lectures and online materials teach you the key ideas languages and protocols underlying the Web. These ideas include separation of concerns in terms of content versus style and client versus server, and the notion of device independence. Important Web languages and protocols include URI, HTTP, HTML, CSS, and JavaScript. By participating in the practical sessions and by making the assignments, you will develop the skills you need to apply these techniques to create basic Web content yourself and to systematically validate and assess more advanced Web content made by yourself and others. The course will teach you the basic building blocks of the Web as it is today, and understanding how they are related will also help you understand future developments. During the course, you will:

- create your own HTML content and formally validate it on syntactical correctness
- create your own CSS style sheets to render the same HTML content differently on different devices
- apply JavaScript code made by yourself or others and use it to enrich the interactive behavior of your own Web content, and learn how to debug such applications
- build a Web server with a RESTfull HTTP API
- write a technical report in which you evaluate your own website on international accessibility criteria and reflex on your previous assignments.

Additional Information Teaching Methods

Lectures (4x2 hours p/week), Practical sessions (2x4 hours p/week, attendance mandatory), homework (preparation lectures, preparation practical sessions, making assignments, preparing the exam) (26 hours p/week).

Method of Assessment

The final grade is determined from the following components:

- Individual exam counts for 30%.

- Three or four (group) assignments count for 60% (4x15% or 3x20%).
- Making the exercises in the online textbook counts for 10%.

To pass the course both the final grade and the individual exam need to be equal or above 5.5.

There will be a resit for the individual exam only.

Literature

Provided online via ZyBook & Canvas.

Additional Information Target Audience

Bachelor Computer Science (year 1)

Custom Course Registration

Registration is compulsory at least 4 weeks before the course starts.
Group enrolment takes place in Canvas.

Explanation Canvas

Further information for this course will be made available online (Canvas). All students must be enrolled in the course Canvas community.

Recommended background knowledge

An introductory programming course, being able to use a command line interface such as bash or Powershell.