



In-depth courses within programming and software development

The courses Development of Web Applications, Applied Machine Learning, Development of Mobile Applications, and System Testing, all have in common that they are preparing students for complex and sought-after skills in the IT industry.

The courses will help you to acquaint yourself with theories, methods, and techniques for the testing, design and development of professional software with machine learning capabilities, resulting in interactive, intelligent and stable applications running on emergent platforms.

The prerequisites for being admitted to the courses consists of at least 22,5 credits in C# programming, database techniques and data structures, combined with general knowledge about the system development lifecycle.

PACKAGE – 30 ECTS

- Development of Web Applications (7.5 credits)
- Applied Machine Learning (7.5 credits)
- Development of Mobile Applications (7.5 credits)
- System Testing (7.5 credits)



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Course Content

DEVELOPMENT OF WEB APPLICATIONS (7.5 CREDITS)

The first course focuses on understanding distributed systems over the internet, equipping students with the skills to develop both user interface-oriented and server-oriented web applications. The languages JavaScript, CSS, and HTML are used for the user interface, and C# with .NET for server-side processing, applying the Model-View-Controller (MVC) design pattern.

APPLIED MACHINE LEARNING (7.5 CREDITS)

In this course you gain a foundational understanding of machine learning, focusing on supervised learning. For this purpose, the language Python is applied with Scikit-Learn and Keras to explore various predictive algorithms and techniques while learning about data preprocessing and model evaluation.

DEVELOPMENT OF MOBILE APPLICATIONS (7.5 CREDITS)

In this course you get introduced to distributed systems and provides practical experience in developing mobile applications for Android and iOS. Using C# and .NET, the students effectively integrate the applications with databases and apply the Model-View-ViewModel (MVVM) design pattern for code separation.

SYSTEM TESTING (7.5 CREDITS)

Finally, in the fourth course System Testing, students learn to plan, execute, and document tests for IT systems. With a focus on quality assurance and the system development process, the students undertake a fundamental testing project, gaining insights into the complexity of testing and debugging IT systems.

Practical information

SEMESTER DATES

2 September 2024 – 19 January 2025

ORIENTATION DAYS

are held for all international students 29 – 30 August 2024.

NOMINATION AND APPLICATION

Nomination deadline: 15 April

Application deadline: 1 May

Partners nominate their students in our application system TransIT transit.hb.se/

REQUIRED DOCUMENTS

Transcripts of Records in English

Certificate of English Language Proficiency (minimum B2-level)

MORE INFORMATION

Info for incoming exchange students: hb.se/exchangecourses

In case of any questions, contact us at tove.pousette@hb.se or internationalstudent@hb.se

