



Course Specification Document

Title	Introduction to Web Applications
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Credits	2.5 ECTS
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Aims	This course aims to provide technical support to student in the field of web applications by equipping him with essential and important knowledge in building web applications. This prepares the student to use this knowledge when needed in other cognitive domains.
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Intended learning outcomes

On successful completion of this course, the student will be able to:

- Understand the basic concepts of the web.
- Comprehend the mechanism of how the web works and the life cycle of a web page request.
- Recognize the methods for building basic web applications and linking them with databases.
- Understand the principles of designing web application interfaces.
- Design web application interfaces to be attractive, interactive, and responsive on different screens.
- Benefit from communication mechanisms with databases and linking between relational spaces in databases and purpose spaces in object-oriented programming languages.
- Develop agile web applications by optimally utilizing data, programming languages, and various frameworks within one of the architectural structures, following objective feature comparisons between these frameworks.

Syllabus

- **Introduction:** Client-Server system, HTTP Protocol, web servers.
- **Client-Side technologies:** HTML, CSS, JavaScript – DOM.
- **Forms:** Form inputs, form actions, form methods.
- **State management:** Understanding state management, Session, Cookie, Local Storage.
- **MVC Model:** MVC architectural model, model binding, pass data to views.
- **Error handling:** Handling expected exceptions within the application, handling unexpected errors, directing the user based on HTTP Status Codes.