

**DEPARTMENT OF ELECTRICAL AND INFORMATION ENGINEERING**

**UNIVERSITY OF RUHUNA**

**Module Information Sheet**

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| **Module Code** | EE4355 | **Module Title** | **Web Application Development** | | | |
| **Credits** | 3.0 | **Lecture Hours/Semester** | | 28 | **Core/TE/GE** | Core (COM) |
| **GPA/NGPA** | GPA | **Workshop Hours/Semester** | | 28 | **Corequisite/ Prerequisite** |  |
| **Module Aim** | | The aim is to enable students to use cutting edge web technologies to create a complete web application. | | | | |
| **Learning Outcomes** | | Upon successful completion of this module, students will be able to:  LO-1 : **Explain** the HTTP protocol and its usage for client server communication.  LO-2 : **Develop** a web application which create, read, update, and delete data records using a Web Framework such as ASP.NET Core, Spring Boot  LO-3 : **Use** MERN stack (MongoDB, Express.js, React, and Node.js) to create a web application.  LO-4 : **Use** RESTful (Representational State Transfer) web services in a web application. | | | | |
| **Outline** | | **Introduction to Web Technologies:**  Hypertext Transfer Protocol (HTTP), Hypertext Markup Language (HTML5), Cascading Style Sheets (CSS3), JavaScript  **Web Frameworks:**  ASP.NET Core, Spring Boot, MERN (MongoDB, Express.js, React, and Node.js), REST | | | | |
| **Methods of Assessments and Marks Allocation** | | * Continuous Assessments **40%**  1. 3 x Online Quizzes [40%]  * End Semester Examination **60%**  1. Final Project Evaluation [30%] 2. Quiz [30%] | | | | |
| **Eligibility to Appear for the End-Semester Evaluation** | | * Minimum 80% attendance for theory classes | | | | |
| **Necessary Conditions to Pass the Module** | | * Earn at least 35% of marks allocated for Continuous Assessments * Earn at least 35% of the marks allocated for End Semester Examination * Earn at least 40% of the total marks allocated for the module. | | | | |
| **Recommended Readings** | | * Andreas Helland, Vincent Maverick Durano, Jeffrey Chilberto, ISBN: 1800567189,9781800567184 Ed Price, ASP.NET Core 5 for Beginners, Packt Publishing, Year: 2020, * Greg Lim, Beginning MERN Stack, Year: 2021 ISBN: 9798523625503 * Robin, Wieruch, The Road to Learn React, 2017 * Craig Walls, Spring Boot in Action, 1st Edition, Manning Publications, ISBN-10 ‏ : ‎ 1617292540 | | | | |