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| **Course Code** | CSU5302 |
| **Level** | 5 |
| **Course Title** | Web Technologies |
| **Credit value** | 3 credits |
| **Core/Optional** | Optional |
| **Prerequisites** | (EL/CR in 6 credits from L4 Computer Science courses)(CSU5304)+(CSU5305) (EL/CR ) and EL/CR in 6 credits from L4 Computer Science courses |
| **Hourly breakdown** | **Theory** | **Practical****hours** | **Independent Learning** | **Assessments** | **Total hrs.** |
| 25 Sessions X 2 = **50 hrs.** | 7 DS x 3 hrs = **21hrs.** | 2 Lab x3 hrs. = **06 hrs.** | * Sessions (25 x 3)

 = 75 hrs.* Online = 1 hr.
* Lab (6 x 0.5) = 3 hrs.

Total = **79 hrs.** | * Continuous Assessments (CA) : **02 hrs.**
 | **158 hrs.** |
| **Course Aim/s.** | To provide effective Web based software solutions for the real world problems  |
| **PLOs addressed by course**  | **PLO1: Knowledge:** Explain the fundamental, principles and broader knowledge pertaining to the chosen science disciplines offered for the degree.**PLO2: Practical Knowledge and Application**. Demonstrate the competency to use the knowledge and practical skills appropriately.**PLO3: Communication**: Demonstrate the competency in communicating efficiently and effectively to present information, ideas and concepts to the scientific community as well as to the wider society.**PLO4: Individual Work, Team Work and Leadership**: Demonstrate the competency in working independently and in groups in addressing issues in multi-disciplinary environments and completing the tasks on time through collaborative learning while exhibiting leadership. **PLO5: Creativity and Problem Solving:** Identify and analyze problems using quantitative and/or qualitative approaches using scientific methodology to provide valid conclusions. **PLO7: Information and Communication Technology Literate**: Demonstrate the competency of using Information and Communication Technology for numerical and statistical analysis, and in day to day applications. **PLO8**: **Vision for Life:** Develop the capacity to project for future through identifying self-directed goals and continuously targeting towards them for self-improvement by undertaking further studies.  |
| **Course Learning Outcomes (CLO)** | At the completion of this course student will be able to; CLO1: Explain the functions of clients and servers on the Web to web design and implementation (PLO1).CLO2: Select and apply modern protocols used on the Web for processing, identifying, and(PLO1,PLO2) presenting of information in web pages.CLO3: Explain the adoption of accepted standards, mark-up languages, client-side programming, and server-side programming to transfer data and add interactive components to web pages while combining multiple web technologies to create advanced web components.(PLO2)CLO4:Incorporate the formal concepts of layout and organization of websites design and its technologies that can be applied for internet-based business.(PLO2,PLO3,PLO4,PLO5,PLO7,PLO8)CLO5: Justify and explain particular internet application concepts, alternatives and decision recommendations. (PLO2, PLO3, PLO4,PLO5, PLO7,PLO8) |
| **Content** **(Main topics, sub topics)**  | Internet and Evolution of the Web, Client Server Model, Popular Internet Protocols , Markup Languages, Web Designing Fundamentals, Web Animation Technologies, Introduction to Web Development, Client Side Programming – Java Script, Server Side Programming – PHP , Cascading Style Sheets – CSS, Extensible Markup Language – XML, Web Services, Database Connectivity, Web Development Tools, Web Servers, Web Security, Search Engine Technologies, Search Engine Optimization (SEO), Web Hosting, Mobile Web Applications, Web Technology Best Practices, HTML 5, ASP.NET Overview |
| **Teaching Learning methods (TL)** | Self-learning/independent learning of self - study (IL)* Learning the course contents in course materials in print and web-based materials (SS)
* Learning through practical exercises & group work projects (PR) & (GP)
* Additional reading materials/ recommended reading (RE)

Contact sessions* Day schools (discussion sessions) (Non-compulsory)
* Laboratory practical exercises (PR) (Non-compulsory)
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| **Assessment strategy** | Overall Continuous Assessment Mark (OCAM): 40% | Final Assessment: 60 % |
| Details: Continuous Assessment I(CA I) : **01 hr.**  Continuous Assessment II (CA II) : **01 hr.** OCAM computation: OCAM= 60% of best CA I/CA II + 40% of other CA I /CA II | Final Evaluation Theory: **02 hrs.** |
| **Recommended** **Readings:** | 1. W3.CSS.; W3School (2018)
2. [Jackson , C. J](https://www.google.lk/search?tbo=p&tbm=bks&q=inauthor:%22Jeffrey+C.+Jackson%22&source=gbs_metadata_r&cad=8). (2007). *Web Technologies: A Computer Science Perspective*.: Prentice Hall
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