COURSE PLANNING (RPKPS)
UNIVERSITAS MULTIMEDIA NUSANTARA

VALIDATION PAGE

Course Name : **Web Design and Development**
Course Code : **IS556**
Course Coordinator : **Monika Evelin Johan, S.Kom., M.M.S.I.**
Team of Lecturers :

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On behalf of the team,
Date: 01-02-2023

Monika Evelin Johan, S.Kom.M.M.S.I.
Course Coordinator

Approved by
Date:

Ririn Ikana Desanti, S.Kom.M.Kom.
Head of Department/Program

Has been checked and considered comply to UMN standard
Date:

(full name with title)
Internal Quality Assurance Office

COURSE PLANNING (RPKPS)
UNIVERSITAS MULTIMEDIA NUSANTARA

COURSE NAME : Web Design and Development
CODE / CREDIT : IS556/ 3 (2 Theory + 1 Lab)
SEMESTER : 2
PREREQUISITE :
COURSE STATUS : Mandatory/~~elective~~

A. COURSE DESCRIPTION

This course provides basic knowledge about the development of web-based information system applications from the client and server sides. Client-side application development discusses how to create responsive web interfaces by learning HTML, CSS and JavaScript and using open-source libraries and frameworks such as jQuery and Bootstrap. The development from the server side discusses how to connect the display on the client side with the database, so that it can perform the process of Create, Retrieve, Update and Delete data using back-end programming language.

B. LEARNING OUTCOME

B.1. Program Expected Learning Outcomes (ELO) Related to the Course

IQF Level: 6

ELO B	Have the ability to simplify complex problems thus providing a better understanding
ELO D	Have the ability to design systems or applications using the best supporting tools or frameworks
ELO H	Have the ability to communicate effectively
ELO J	Have the awareness to adapt new knowledge

B.2. Course Learning Outcomes (CLO)

After passing this course, students will be able to use the skills and knowledge from this course as a WEB APPLICATION DEVELOPER in intermediate level with competences as follow:

ELO B	CLO 1	Students are able to **analyze** client-side and server-side application (C4)
ELO D	CLO 2	Students are able to **build** web appliation as a solution to problem solving (C6)
ELO H	CLO 3	Students are able to **simulate** the final result of their final project (C6)
ELO J	CLO 4	Students are able to **implement** new tools and or technology (C3)

B.3. Course Sub Learning Outcomes (Sub-CLO)

CLO 1	SUB-CLO 01	Students are able to explain about web concepts and technologies. (C2);	Week 1
	SUB-CLO 02	Students are able to build web page structures using HTML5. (C3);	
	SUB-CLO 03	Students can analyze web application development needs and able to design user interface layouts using CSS on web pages. (C4);	Week 2
	SUB-CLO 04	Students are able to use JavaScript to add logic to web pages and utilize the concept of Document Object Model (DOM). (C4);	Week 3
	SUB-CLO 05	Students are able to use jQuery to produce interactive web pages and build responsive web pages using CSS framework (for example: Bootstrap). (C5);	Week 4
	SUB-CLO 06	Students are able to add and configure some multimedia objects on a web page. (C4);	Week 5
	SUB-CLO 07	Students are able to design relational databases to build an information system application based on an analysis of organizational, business or research interests. (C5);	Week 6, Week 7
	SUB-CLO 08	Students are able to use server-side programming language (PHP) to perform the Create, Retrive, Update and Delete (CRUD) processes on relational database. (C5);	
	SUB-CLO 09	Students are able to take advantage of Cookies, Session and string encryption to establish user authentication in information system applications. (C5);	Week 8
	SUB-CLO 10	Students are able to build application to validate and upload files to the server (C5);	Week 9
CLO 2	SUB-CLO 11	Students are able to build web application using certain framework for web development (C6);	Week 10
			Week 11
			Week 12
	SUB-CLO 12	Students are able to apply several techniques related to website promotion such as utilizing search engine optimization (C6);	Week 13
CLO 4	SUB-CLO 13	Students are able to build web applications based on the design, analysis and evaluation of needs. (C3);	Week 14
CLO 3	SUB-CLO 14	Students are able to demo web applications that have been built based on design, analysis, and evaluation of needs. (C6).	

C. LEARNING ANALYSIS

-Figure is attached-

D. TOPICS

1.Introduction to Web Technology (Request-Response Cycle & HTML5)
2.Cascading Style Sheet (CSS)
3.Responsive Web Design

4. Document Object Model (DOM) & JavaScript Events
5. JavaScript Library: jQuery
6. Web Framework: Bootstrap
7.Database using MySQL
8.Introduction to PHP
9.CRUD (Create, Retrive, Update, Delete) on relational database
10. Validation & File Upload
11. User Authentication: Cookies, Session, encryption
12. Search Engine Optimization

E. EVALUATION

1. Attending lecture punctually is mandatory. Students will be considered absent if coming over the specified time.
2. Attending 14 lectures is mandatory. Attending minimum of 11 from 14 meetings is required to be able to take the final test.
3. Final grade is determined by following components:
   a. Midterm Test : 30%
   b. Final Test : 40%
   c. Assignment, Paper, & presenting : 30%

FINAL GRADING :

Score	Alphabetical Grade	Numerical Grrade	Remarks
85 – 100	A	4	Excellent
80 – 84,99	A-	3,7	Good
75 – 79,99	B+	3,3	
70 – 74,99	B	3,0	
65 – 69,99	B-	2,7	Satisfactory
60 – 64,99	C+	2,3	
55 – 59,99	C	2,0	

45 – 54,99	D	1,0	Poor
0 – 44,99	E	0	Very Poor
	F	0	Academic Violation

F. REFERENCE AND RESOURCES

-Main-

1. Felke-Morris, T. A. (2018). Web Development and Design Foundations with HTML5, Global Edition (8th ed.). Pearson International Content. https://umnlibrary.vitalsource.com/books/9781292164083
2. Robins, J. N. (2018). Learning Web Design: A Beginner's Guide to HTML, CSS, JavaScript, and Web Graphics 5th Ed. O'Reilly Media.

-Additional/Supporting-

CLO	SUB-CLO	THEORY			LAB		
		Task/Project	Midterm Test	Final Test	Task/Project	Midterm Test	Final Test
CLO 1	SUB-CLO 01: Students are able to explain about web concepts and technologies. (C2) SUB-CLO 02: Students are able to build web page structures using HTML5. (C3)	Quiz 1 (2%)	Mid-Exam (30%)		Lab 1 (2%)	Mid-Exam (30%)	
	SUB-CLO 03: Students can analyze web application development needs and able to design user interface layouts using CSS on web pages. (C4)	Quiz 2 (2%)			Lab 2 (2%)		
	SUB-CLO 04: Students are able to use JavaScript to add logic to web pages and utilize the concept of Document Object Model (DOM). (C4)	Quiz 3 (2%)			Lab 3 (2%)		
	SUB-CLO 05: Students are able to use jQuery to produce interactive web pages and build responsive web pages using CSS framework (for example: Bootstrap). (C5)	Quiz 4 (2%)			Lab 4 (2%)		

	SUB-CLO 06: Students are able to add and configure some multimedia objects on a web page. (C4)	Quiz 5 (2%)			Lab 5 (2%)		
	SUB-CLO 07: Students are able to design relational databases to build an information system application based on an analysis of organizational, business or research interests. (C5) SUB-CLO 08: Students are able to use server-side programming language (PHP) to perform the Create, Retrive, Update and Delete (CRUD) processes on relational database. (C5)	Quiz 6 (2%) Task 1 (2%)			Lab 6 (2%) Lab 7 (2%)		
	SUB-CLO 09: Students are able to take advantage of Cookies, Session and string encryption to establish user authentication in information system applications. (C5);	Task 2 (3%)			Lab 8 (2%)		
	SUB-CLO 10: Students are able to build application to validate and upload files to the server (C5)				Lab 9 (2%)		
CLO 2	SUB-CLO 11: Students are able to build web application using certain framework (C6)	Task 3 (Group Task) (5%)			Lab 10 (3%)		
					Lab 11 (3%)		
					Lab 12 (3%)		
	SUB-CLO 12: Students are able to apply several techniques related to website promotion such as utilizing search engine optimization (C6)	Task 4 (3%)			Lab 13 (3%)		
CLO 4	SUB-CLO 13: Students are able to build web applications based on the design, analysis and evaluation of needs. (C3)	Presentation (5%)		Final Project (40%)	Lab 14 Demo Project (10%)		Final Project (40%)
CLO 3	SUB-CLO 14: Students are able to demo web applications that have been built based on design, analysis, and evaluation of needs. (C6)						
	TOTAL	**30%**	**30%**	**40%**	**30%**	**30%**	**40%**

G. WEEKLY LESSON PLAN

Week	Course Sub-Learning Outcomes (Sub-CLO)	Topics & Sub-topics	Learning Methods and Activities	Timing	*Assesment*			Ref.
					Assessment type and Grading System	Indicators	Weight	
1.	SUB-CLO 01: Students are able to explain about web concepts and technologies. (C2) SUB-CLO 02: Students are able to build web page structures using HTML5. (C3)	Topics: Web Concepts and Technologies Sub-topics: 1. Introduction to web technologies 2. Web concepts 3. Introduction to HTML 4. Webpage structure using HTML 5	**Learning Methods: (**Kuliah/Praktikum/Seminar) Lecture and Lab **Activities:** **Pre-Class** Material Reading **In Class** Material Presentation Discussion: Q&A **Post Class** Quiz and teamwork **Lab** Pre-class: module reading In-class: Practicum Post-class: Continue unfinished work	1x30' 2x50' 1x40' 1x35' 1x100' 1x35'	**Assessment:** Quiz 1 Lab **Grading system**: Rubric	Quiz - Correctness (100%) Lab - Perform all the steps in the lab Module (50%) - The results of the script that is executed according to the purpose (50%)	2% 2%	1 [pg. 19 – 80]; 2
2.	SUB-CLO 03: Students can analyze web application development needs and able to design user interface layouts using CSS on web pages. (C4)	Topics: Designing Web interface using CSS Sub-topics: 1. Analysis of web application development requirements 2. Designing user interface on web pages. 3. Webpage layout using CSS	**Learning Methods: (**Kuliah/Praktikum/Seminar) Lecture and Lab **Activities:** **Pre-Class** Material Reading **In Class** Material Presentation Discussion: Q&A **Post Class** Quiz and teamwork **Lab** Pre-class: module reading In-class: Practicum Post-class: Continue unfinished work	1x30' 2x50' 1x40' 1x35' 1x100' 1x35'	**Assessment:** Quiz 2 Lab **Grading system**: Rubric	Quiz - Correctness (100%) Lab - Perform all the steps in the lab Module (50%) - The results of the script that is executed according to the purpose (50%)	2% 2%	1 [pg. 99 – 452, 470 - 479]

Week	Course Sub-Learning Outcomes (Sub-CLO)	Topics & Sub-topics	Learning Methods and Activities	Timing	*Assesment*			Ref.
					Assessment type and Grading System	Indicators	Weight	
3.	SUB-CLO 04: Students are able to use JavaScript to add logic to web pages and utilize the concept of Document Object Model (DOM). (C4)	Topics: Web Development using JavaScript Sub-topics: 1. Introduction to JavaScript 2. Additional logic using JavaScript 3. Document Object Model (DOM) 4. JavaScript Events	**Learning Methods: (**Kuliah/Praktikum/Seminar) Lecture and Lab **Activities:** **Pre-Class** Material Reading **In Class** Material Presentation Discussion: Q&A **Post Class** Quiz and teamwork **Lab** Pre-class: module reading In-class: Practicum Post-class: Continue unfinished work	1x30' 2x50' 1x40' 1x35' 1x100' 1x35'	**Assessment:** Quiz 3 Lab **Grading system**: Rubric	Quiz - Correctness (100%) Lab - Perform all the steps in the lab Module (50%) - The results of the script that is executed according to the purpose (50%)	2% 2%	1 [pg. 516-517, 590-599]
4.	SUB-CLO 05: Students are able to use jQuery to produce interactive web pages and build responsive web pages using CSS framework (for example: Bootstrap). (C5)	Topics: Interactive Web Page using jQuery Sub-topics: 1. jQuery for interactive webpage 2. Bootstrap for responsive webpage	**Learning Methods: (**Kuliah/Praktikum/Seminar) Lecture and Lab **Activities:** **Pre-Class** Material Reading **In Class** Material Presentation Discussion: Q&A **Post Class** Quiz and teamwork **Lab** Pre-class: module reading In-class: Practicum	1x30' 2x50' 1x40' 1x35' 1x100'	**Assessment:** Quiz 4 Lab **Grading system**: Rubric	Quiz - Correctness (100%) Lab - Perform all the steps in the lab Module (50%) - The results of the script that is executed according to the purpose (50%)	2% 2%	1 [pg. 619-633];

Week	Course Sub-Learning Outcomes (Sub-CLO)	Topics & Sub-topics	Learning Methods and Activities	Timing	*Assesment*			Ref.
					Assessment type and Grading System	Indicators	Weight	
			Post-class: Continue unfinished work	1x35'				
5.	SUB-CLO 06: Students are able to add and configure some multimedia objects on a web page. (C4)	Topics: Web Multimedia Sub-topics: 1. Web multimedia and interactivity	**Learning Methods: (**Kuliah/Praktikum/Seminar) Lecture and Lab **Activities:** **Pre-Class** Material Reading **In Class** Material Presentation Discussion: Q&A **Post Class** Quiz and teamwork **Lab** Pre-class: module reading In-class: Practicum Post-class: Continue unfinished work	 1x30' 2x50' 1x40' 1x35' 1x100' 1x35'	**Assessment:** Quiz 5 Lab **Grading system**: Rubric	Quiz - Correctness (100%) Lab - Perform all the steps in the lab Module (50%) - The results of the script that is executed according to the purpose (50%)	2% 2%	1 [pg. 491-505]
6.	SUB-CLO 07: Students are able to design relational databases to build an information system application based on an analysis of organizational, business or research interests. (C5) SUB-CLO 08: Students are able to use server-side programming language (PHP) to perform the Create,	Topics: Server-Side Web Analysis, Design and Development Sub-topics: 1. Analysis of organization requirement 2. Relational Database 3. Server-side programming language (PHP)	**Learning Methods: (**Kuliah/Praktikum/Seminar) Asyncron & Lab **Activities:** **Pre-Class** Material Reading **In Class** Material Presentation Discussion: Q&A **Post Class** Quiz and teamwork **Lab** Pre-class: module reading In-class: Practicum	 1x30' 2x50' 1x40' 1x35' 1x100'	**Assessment:** Quiz Task 1 Lab **Grading system**: Rubric	Quiz - Correctness (100%) Task 1 - Code is correct and executable (60%) - Originality (30%) - Creativity (10%) Lab - Perform all the steps in the lab Module (50%) - The results of the script that is executed according to the purpose (50%)	2% 2% 2%	

Week	Course Sub-Learning Outcomes (Sub-CLO)	Topics & Sub-topics	Learning Methods and Activities	Timing	*Assesment*			Ref.
					Assessment type and Grading System	Indicators	Weight	
	Retrieve, Update and Delete (CRUD) processes on relational database. (C5)	4. CRUD from relational database	Post-class: Continue unfinished work	1x35'				
7.	SUB-CLO 07: Students are able to design relational databases to build an information system application based on an analysis of organizational, business or research interests. (C5) SUB-CLO 08: Students are able to use server-side programming language (PHP) to perform the Create, Retrieve, Update and Delete (CRUD) processes on relational database. (C5)	Topics: Implementing Client-Side and Server-Side Design and Development on a Web Page Sub-topics: 1. Manipulation of date and time information of data in database. 2. Develop a form by implementing dynamic web and CRUD on the database.	**Learning Methods: (**Kuliah/Praktikum/Seminar) Lecture and Lab **Activities:** **Pre-Class** Material Reading **In Class** Material Presentation Discussion: Q&A **Post Class** Teamwork – project discussion **Lab** Pre-class: module reading In-class: Practicum Post-class: Continue unfinished work	1x30' 2x50' 1x40' 1x35' 1x100' 1x35'	**Assessment:** Lab **Grading system**: Rubric	Lab - Perform all the steps in the lab Module (50%) - The results of the script that is executed according to the purpose (50%)	2%	1 [pg. 417-452]
Midterm Test Type or Assignment Methods : Take home – Project							30%	Week 1-7
8.	SUB-CLO 09: Students are able to take advantage of Cookies, Session and string encryption to establish user authentication in information system applications. (C5)	Topics: User Authentication and Encryption Sub-topics: 1. Cookies, session, and string encryption	**Learning Methods: (**Kuliah/Praktikum/Seminar) Lecture and Lab **Activities:** **Pre-Class** Material Reading **In Class** Material Presentation Discussion: Q&A **Post Class**	1x30' 2x50'	**Assessment:** Lab **Grading system**: Rubric	Lab - Perform all the steps in the lab Module (50%) - The results of the script that is executed according to the purpose (50%)	2%	1 [pg. 541-544]

Week	Course Sub-Learning Outcomes (Sub-CLO)	Topics & Sub-topics	Learning Methods and Activities	Timing	*Assesment*			Ref.
					Assessment type and Grading System	Indicators	Weight	
			Teamwork – project discussion **Lab** Pre-class: module reading In-class: Practicum Post-class: Continue unfinished work	1x40' 1x35' 1x100' 1x35'				
9.	SUB-CLO 10: Students are able to build application to validate and upload files to the server (C5)	Topics: Manage File Sub-topics: 1. File validation 2. File upload	**Learning Methods: (**Kuliah/Praktikum/Seminar) Lecture and Lab **Activities:** **Pre-Class** Material Reading **In Class** Material Presentation Discussion: Q&A **Post Class** Teamwork – project discussion **Lab** Pre-class: module reading In-class: Practicum Post-class: Continue unfinished work	1x30' 2x50' 1x40' 1x35' 1x100' 1x35'	**Assessment:** Task 2 Lab **Grading system**: Rubric	Task 2 - Code is correct and executable (60%) - Originality (30%) - Creativity (10%) Lab - Perform all the steps in the lab Module (50%) - The results of the script that is executed according to the purpose (50%)	3% 2%	
10.	SUB-CLO 11: Students are able to build web application using certain framework (C6)	Topics: Web Development Framework (1) Sub-topics: 1. Types of web development framework. 2. Recognize and use several web development frameworks	**Learning Methods: (**Kuliah/Praktikum/Seminar) Lecture and Lab **Activities:** **Pre-Class** Material Reading **In Class** Material Presentation Discussion: Q&A **Post Class** Teamwork – project discussion	1x30' 2x50' 1x40'	**Assessment:** Lab **Grading system**: Rubric	Lab - Perform all the steps in the lab Module (50%) - The results of the script that is executed according to the purpose (50%)	3%	

Week	Course Sub-Learning Outcomes (Sub-CLO)	Topics & Sub-topics	Learning Methods and Activities	Timing	*Assesment*			Ref.
					Assessment type and Grading System	Indicators	Weight	
			Lab Pre-class: module reading In-class: Practicum Post-class: Continue unfinished work	 1x35' 1x100' 1x35'				
11.	SUB-CLO 11: Students are able to build web application using certain framework (C6)	Topics: Web Development Framework (2) Sub-topics: 1. Types of web development framework. 2. Recognize and use several web development frameworks	**Learning Methods: (**Kuliah/Praktikum/Seminar) Lecture and Lab **Activities:** **Pre-Class** Material Reading **In Class** Material Presentation Discussion: Q&A **Post Class** Teamwork – project discussion **Lab** Pre-class: module reading In-class: Practicum Post-class: Continue unfinished work	 1x30' 2x50' 1x40' 1x35' 1x100' 1x35'	**Assessment:** Lab **Grading system**: Rubric	Lab - Perform all the steps in the lab Module (50%) - The results of the script that is executed according to the purpose (50%)	3%	
12.	SUB-CLO 11: Students are able to build web application using certain framework (C6)	Topics: Web Development Framework (3) Sub-topics: 1. Types of web development framework. 2. Recognize and use several web development frameworks	**Learning Methods: (**Kuliah/Praktikum/Seminar) Lecture and Lab **Activities:** **Pre-Class** Material Reading **In Class** Material Presentation Discussion: Q&A **Post Class** Teamwork – project discussion	 1x30' 2x50' 1x40'	**Assessment:** Task 3 Lab **Grading system**: Rubric	Task 3 - Completeness (point a – e) (90%) - Creativity of video making (10%) Lab - Perform all the steps in the lab Module (50%) - The results of the script that is executed according to the purpose (50%)	5% 3%	

Week	Course Sub-Learning Outcomes (Sub-CLO)	Topics & Sub-topics	Learning Methods and Activities	Timing	*Assesment*			Ref.
					Assessment type and Grading System	Indicators	Weight	
			Lab Pre-class: module reading In-class: Practicum Post-class: Continue unfinished work	1x35' 1x100' 1x35'				
13.	SUB-CLO 12: Students are able to apply several techniques related to website promotion such as utilizing search engine optimization (C6)	Topics: Web Promotion Sub-topics: 1. Search Engine Overview 2. Components of a Search Engine 3. Search Engine Optimization	**Learning Methods: (**Kuliah/Praktikum/Seminar) Lecture and Lab **Activities:** **Pre-Class** Material Reading **In Class** Material Presentation Discussion: Q&A **Post Class** Quiz and teamwork **Lab** Pre-class: module reading In-class: Practicum Post-class: Continue unfinished work	1x30' 2x50' 1x40' 1x35' 1x100' 1x35'	**Assessment:** Task 4 Lab **Grading system**: Rubric	Task 4 - Answers (correctness) (60%) - Originality (30%) - Creativity (10%) Lab - Perform all the steps in the lab Module (50%) - The results of the script that is executed according to the purpose (50%)	3% 3%	
14.	SUB-CLO 13: Students are able to build web applications based on the design, analysis and evaluation of needs. (C3) SUB-CLO 14: Students are able to demo web applications that have been built based on	Topics: Implementation of Web Concepts Sub-topics: 1. Web application implementation by students in groups.	**Learning Methods: (**Kuliah/Praktikum/Seminar) Lecture and Lab **Activities:** **Pre-Class** Finishing of group final project and preparation of presentation **In Class** Group presentation Discussion: Q&A, Feedback **Post Class** Revision and improvement	1x30' 2x50' 1x40'	**Assessment:** Presentation project Demo **Grading system**: Rubric	Presentation and demo project: **a. Indicator 1 (30%)** Qualify tasks (UI display, database, CRUD, responsive and interactive, and more) **b. Indicator 2 (30%)** The web app is running fine **c. Indicator 3 (20%)** Innovation **d. Indicator 4 (10%)**	5% 10%	

Week	Course Sub-Learning Outcomes (Sub-CLO)	Topics & Sub-topics	Learning Methods and Activities	Timing	*Assesment*			Ref.
					Assessment type and Grading System	Indicators	Weight	
	design, analysis, and evaluation of needs. (C6)		**Lab** Pre-class: Finishing of group final project In-class: Demo web application by students in groups Post-class: Revision and improvement	1x35' 1x100' 1x35'		Demo explanation **e. Indicator 5 (10%)** Involvement of all group members		
Final Test Type or Assignment Methods: Take home - Project							40%	Week 1-14

H. Task/Project Details:

1. Quiz 1 - 6

Course	:	Web Design and Development	Course Code	:	IS556
Task/Project Name	:	Quiz	Weight	:	12%
Related Sub-CLO	:	SUB-CLO 01-08			

A. Individual Activities			
Description		Evaluating students' understanding of the material provided.	
B. Structured Work/Task			
Assessment Type	:	Individual quiz	
Description	:	Students can answer questions as evidence that they have understood the material given.	
Output and format	:	**Output** - Quiz on e-learning **Format:** - Multiple choice, true/false, or essay via e-learning.	
Indicators, Criteria, and Weight	:	- Correctness (100%)	
Project/Work Timeline	:	**Total duration:** With details: a. Quiz 1 b. Quiz 2 c. Quiz 3 d. Quiz 4 e. Quiz 5 f. Quiz 6	**6 x 30'** Week 1 Week 2 Week 3 Week 4 Week 5 Week 6
Others	:		
References	:	Material week 1 - 6	

2. Task 1

Course	:	Web Design and Development	Course Code	:	IS556
Task/Project Name	:	Task	Weight	:	2%
Related Sub-CLO	:	SUB-CLO 07 - 08			

A. Individual Activities			
Description		Practicing create a web application that uses the CRUD concept on a relational database.	
B. Structured Work/Task			
Assessment Type	:	Individual task	
Description	:	Students create a simple scenario that implements a CRUD process on a relational database using PHP.	
Output and format	:	**Output** - File upload via e-learning **Format:** - Zip file via e-learning.	
Indicators, Criteria, and Weight	:	- Code is correct and executable (60%) - Originality (30%) - Creativity (10%)	
Project/Work Timeline	:	**Total duration:** With details: a. Task 1	**1 x 30'** Week 6
Others	:		
References	:	Material week 6	

3. Task 2

Course	:	Web Design and Development	Course Code	:	IS556
Task/Project Name	:	Task	Weight	:	3%
Related Sub-CLO	:	SUB-CLO 09 - 10			

A. Individual Activities			
Description		Practicing create a web application that implements concept of user authentication and web encryption using e-commerce case study.	
B. Structured Work/Task			
Assessment Type	:	Individual task	
Description	:	Using an e-commerce case study, create a simple register, log in, and shopping cart system.	
Output and format	:	**Output** - File upload via e-learning **Format:** - Zip file via e-learning.	
Indicators, Criteria, and Weight	:	- Code is correct and executable (60%) - Originality (30%) - Creativity (10%)	
Project/Work Timeline	:	**Total duration:** With details: a. Task 2	**1 x 30'** Week 9
Others	:		
References	:	Material week 8 - 9	

4. Task 3

Course	:	Web Design and Development	Course Code	:	IS556
Task/Project Name	:	Task	Weight	:	5%
Related Sub-CLO	:	SUB-CLO 11			

A. Group Activities			
Description		Looking for one of the frameworks used to create / develop websites.	
B. Structured Work/Task			
Assessment Type	:	Group task	
Description	:	Discuss the framework, including: a. Short history such as founder, development, etc. b. Type (ex: open source/paid) c. Pre-requisite(s) d. Strengths and limitations e. Usage examples (create an example mini-project using the framework. The mini-project may be part of the group's final project).	
Output and format	:	**Output** - File upload via e-learning **Format:** - Video and ppt file via e-learning.	
Indicators, Criteria, and Weight	:	- Completeness (point a – e) (90%) - Creativity of video making (10%)	
Project/Work Timeline	:	**Total duration:** With details: a. Select framework b. Video presentation (1) c. Video presentation (2)	**3 x 30'** Week 10 Week 11 Week 12
Others	:		
References	:	Material week 10 – 12	

5. Task 4

Course	:	Web Design and Development	Course Code	:	IS556
Task/Project Name	:	Task	Weight	:	3%
Related Sub-CLO	:	SUB-CLO 12			

A. Individual Activities			
Description		Looking for one of the frameworks used to create / develop websites.	
B. Structured Work/Task			
Assessment Type	:	Individual task	
Description	:	Research a search engine or search directory and determine the following: • Are free submissions accepted? If so, are they restricted to non-commercial sites? • What types of paid submissions are accepted? How do they work (what is the fee structure, listing guarantee, and so on)? • What types of paid advertisements are available? How do they work (what is the fee structure, for example)? • Is there any information about the usual time frame for the submission to be listed? • Create a web page that describes your findings. Provide URLs of the websites you used as resources. Place your name in an e-mail link on the web page	
Output and format	:	**Output** - File upload via e-learning **Format:** - Zip file via e-learning.	
Indicators, Criteria, and Weight	:	- Answers (correctness) (60%) - Originality (30%) - Creativity (10%)	
Project/Work Timeline	:	**Total duration:** With details: a. Select framework	**1 x 30'** Week 13
Others	:		
References	:	Material week 13	

6. Final Project (Presentation)

Course	:	Web Design and Development	Course Code	:	IS556
Task/Project Name	:	Final Project	Weight	:	5 %
Related Sub-CLO	:	SUB-CLO 13 & 14			

A. Individual Activities		
Description		Students in groups make a web application.
B. Structured Work/Task		
Assessment Type	:	Take home project.
Description	:	Students in groups are able to build web applications based on design, analysis and evaluation of needs Provision: - Free to choose a topic. May be directed to PKM competitions or other competitions. It is hoped that the final results of student projects can be included in competitions and will attract more students' interest. Topics may also be directed at SGD (Sustainable Development Goals). In addition, it can also be themed facilitating persons with disabilities. - Free to use the framework. - No plagiarism or copying an existing project. Students can use a template but can't be precise, there must be a modification from the group according to the website idea/innovation that was made.
Output and format	:	**Output** - Web applications file project. - PPT for presentation. **Format:** - zip file including: Web application online Project document PPT
Indicators, Criteria, and Weight	:	**f. Indicator 1 (30%)** Qualify tasks (UI display, database, CRUD, responsive and interactive, and more) **g. Indicator 2 (30%)** The web app is running fine **h. Indicator 3 (20%)** Innovation **i. Indicator 4 (10%)** Demo explanation **j. Indicator 5 (10%)** Involvement of all group members

Project/Work Timeline	:	**Total duration:** With details: 1. Presentation	**1 week** Week 14
Others	:		
References	:	Week 1 -13	

1. Lab Week 1

Course	:	Web Design and Development	Course Code	:	IS556
Task/Project Name	:	Practical Lab	Weight	:	2 %
Related Sub-CLO	:	CLO1- SUB-CLO 01 - 02			

A. Individual Activities		
Description		Students learn to make a simple webpage using HTML.
B. Structured Work/Task		
Assessment Type	:	Practical Lab
Description	:	- Students are able to make a simple webpage using HTML.
Output and format	:	**Output** - Answer of questions. - Project file/code **Format:** - Zip file including file doc or docx for answer and project for code.
Indicators, Criteria, and Weight	:	- Perform all the steps in the lab Module (50%) - The results of the script that is executed according to the purpose (50%)
Project/Work Timeline	:	**Total duration:** **1 day** With details: 1. Module Lab Week 1 — Week 1
Others	:	
References	:	Material week 1

2. Lab Week 2

Course	:	Web Design and Development	Course Code	:	IS556
Task/Project Name	:	Practical Lab	Weight	:	2 %
Related Sub-CLO	:	CLO1- SUB-CLO 03			

A. Individual Activities		
Description		Students learn to use CSS to lay out web page
B. Structured Work/Task		
Assessment Type	:	Practical Lab
Description	:	- Students are able to make a simple webpage using HTML and CSS.
Output and format	:	**Output** - Answer of questions. - Project file/code **Format:** - Zip file including file doc or docx for answer and project for code.
Indicators, Criteria, and Weight	:	- Perform all the steps in the lab Module (50%) - The results of the script that is executed according to the purpose (50%)
Project/Work Timeline	:	**Total duration:** **1 day** With details: 1. Module Lab Week 2 — Week 2
Others	:	
References	:	Material week 2

3. Lab Week 3

Course	:	Web Design and Development	Course Code	:	IS556
Task/Project Name	:	Practical Lab	Weight	:	2 %
Related Sub-CLO	:	CLO1- SUB-CLO 04			

A. Individual Activities			
Description		Implementation of JavaScript and DOM 4	
B. Structured Work/Task			
Assessment Type	:	Practical Lab	
Description	:	- Students are able to lay out a webpage using the concept of JavaScript and DOM.	
Output and format	:	**Output** - Answer of questions. - Project file/code **Format:** - Zip file including file doc or docx for answer and project for code.	
Indicators, Criteria, and Weight	:	- Perform all the steps in the lab Module (50%) - The results of the script that is executed according to the purpose (50%)	
Project/Work Timeline	:	**Total duration:** With details: 1. Module Lab Week 3	**1 day** Week 3
Others	:		
References	:	Material week 3	

4. Lab Week 4

Course	:	Web Design and Development	Course Code	:	IS556
Task/Project Name	:	Practical Lab	Weight	:	2 %
Related Sub-CLO	:	CLO1- SUB-CLO 05			

A. Individual Activities			
Description		Implementation of jQuery and Bootstrap	
B. Structured Work/Task			
Assessment Type	:	Practical Lab	
Description	:	- Students are able to use jQuery and Bootstrap	
Output and format	:	**Output** - Answer of questions. - Project file/code **Format:** - Zip file including file doc or docx for answer and project for code.	
Indicators, Criteria, and Weight	:	- Perform all the steps in the lab Module (50%) - The results of the script that is executed according to the purpose (50%)	
Project/Work Timeline	:	**Total duration:** With details: 1. Module Lab Week 4	**1 day** Week 4
Others	:		
References	:	Material week 4	

5. Lab Week 5

Course	:	Web Design and Development	Course Code	:	IS556
Task/Project Name	:	Practical Lab	Weight	:	2 %
Related Sub-CLO	:	CLO1- SUB-CLO 06			

A. Individual Activities			
Description		Add and configure multimedia objects on a web page	
B. Structured Work/Task			
Assessment Type	:	Practical Lab	
Description	:	- Students are able to add and configure multimedia objects on a web page	
Output and format	:	**Output** - Answer of questions. - Project file/code **Format:** - Zip file including file doc or docx for answer and project for code.	
Indicators, Criteria, and Weight	:	- Perform all the steps in the lab Module (50%) - The results of the script that is executed according to the purpose (50%)	
Project/Work Timeline	:	**Total duration:** With details: 1. Module Lab Week 5	**1 day** Week 5
Others	:		
References	:	Material week 5	

6. Lab Week 6

Course	:	Web Design and Development	Course Code	:	IS556
Task/Project Name	:	Practical Lab	Weight	:	2 %
Related Sub-CLO	:	CLO1- SUB-CLO 07 - 08			

A. Individual Activities		
Description		Implementation of CRUD on relational database on a web application using PHP
B. Structured Work/Task		
Assessment Type	:	Practical Lab
Description	:	- Students are able to implement CRUD on relational database on a web application using PHP
Output and format	:	**Output** - Answer of questions. - Project file/code **Format:** - Zip file including file doc or docx for answer and project for code.
Indicators, Criteria, and Weight	:	- Perform all the steps in the lab Module (50%) - The results of the script that is executed according to the purpose (50%)
Project/Work Timeline	:	**Total duration:** **1 day** With details: 1. Module Lab Week 6 — Week 6
Others	:	
References	:	Material week 6

7. Lab Week 7

Course	:	Web Design and Development	Course Code	:	IS556
Task/Project Name	:	Practical Lab	Weight	:	2 %
Related Sub-CLO	:	CLO1- SUB-CLO 07 - 08			

A. Individual Activities		
Description		Implementation of CRUD on relational database on a web application using PHP
B. Structured Work/Task		
Assessment Type	:	Practical Lab
Description	:	- Students are able to implement CRUD on relational database on a web application using PHP
Output and format	:	**Output** - Answer of questions. - Project file/code **Format:** - Zip file including file doc or docx for answer and project for code.
Indicators, Criteria, and Weight	:	- Perform all the steps in the lab Module (50%) - The results of the script that is executed according to the purpose (50%)
Project/Work Timeline	:	**Total duration:** **1 day** With details: 1. Module Lab Week 7 — Week 7
Others	:	
References	:	Material week 7

8. Lab Week 8

Course	:	Web Design and Development	Course Code	:	IS556
Task/Project Name	:	Practical Lab	Weight	:	2 %
Related Sub-CLO	:	CLO1- SUB-CLO 09			

A. Individual Activities		
Description		Uses of cookies, session, and encryption on a web application
B. Structured Work/Task		
Assessment Type	:	Practical Lab
Description	:	- Students are able to implement of cookies, session, and encryption on a web application
Output and format	:	**Output** - Answer of questions. - Project file/code **Format:** - Zip file including file doc or docx for answer and project for code.
Indicators, Criteria, and Weight	:	- Perform all the steps in the lab Module (50%) - The results of the script that is executed according to the purpose (50%)
Project/Work Timeline	:	**Total duration:** **1 day** With details: 1. Module Lab Week 8 — Week 8
Others	:	
References	:	Material week 8

9. Lab Week 9

Course	:	Web Design and Development	Course Code	:	IS556
Task/Project Name	:	Practical Lab	Weight	:	2 %
Related Sub-CLO	:	CLO1- SUB-CLO 10			

A. Individual Activities			
Description		Validation and file upload	
B. Structured Work/Task			
Assessment Type	:	Practical Lab	
Description	:	- Students are able to implement validation and file upload on a web application	
Output and format	:	**Output** - Answer of questions. - Project file/code **Format:** - Zip file including file doc or docx for answer and project for code.	
Indicators, Criteria, and Weight	:	- Perform all the steps in the lab Module (50%) - The results of the script that is executed according to the purpose (50%)	
Project/Work Timeline	:	**Total duration:** With details: 1. Module Lab Week 9	**1 day** Week 9
Others	:		
References	:	Material week 9	

10. Lab Week 10

Course	:	Web Design and Development	Course Code	:	IS556
Task/Project Name	:	Practical Lab	Weight	:	3%
Related Sub-CLO	:	CLO1- SUB-CLO 11			

A. Individual Activities		
Description		Web application development using certain framework: CodeIgniter
B. Structured Work/Task		
Assessment Type	:	Practical Lab
Description	:	- Students are able to build web application development using certain framework: CodeIgniter
Output and format	:	**Output** - Answer of questions. - Project file/code **Format:** - Zip file including file doc or docx for answer and project for code.
Indicators, Criteria, and Weight	:	- Perform all the steps in the lab Module (50%) - The results of the script that is executed according to the purpose (50%)
Project/Work Timeline	:	**Total duration:** **1 day** With details: 1. Module Lab Week 10 — Week 10
Others	:	
References	:	Material week 10

11. Lab Week 11

Course	:	Web Design and Development	Course Code	:	IS556
Task/Project Name	:	Practical Lab	Weight	:	3%
Related Sub-CLO	:	CLO1- SUB-CLO 11			

C. Individual Activities		
Description		Web application development using certain framework: Laravel
D. Structured Work/Task		
Assessment Type	:	Practical Lab
Description	:	- Students are able to build web application development using certain framework: Laravel
Output and format	:	**Output** - Answer of questions. - Project file/code **Format:** - Zip file including file doc or docx for answer and project for code.
Indicators, Criteria, and Weight	:	- Perform all the steps in the lab Module (50%) - The results of the script that is executed according to the purpose (50%)
Project/Work Timeline	:	**Total duration:** **1 day** With details: 1. Module Lab Week 11 — Week 11
Others	:	
References	:	Material week 11

12. Lab Week 12

Course	:	Web Design and Development	Course Code	:	IS556
Task/Project Name	:	Practical Lab	Weight	:	3%
Related Sub-CLO	:	CLO1- SUB-CLO 11			

E. Individual Activities		
Description		Web application development using certain framework: Yii
F. Structured Work/Task		
Assessment Type	:	Practical Lab
Description	:	- Students are able to build web application development using certain framework: Yii
Output and format	:	**Output** - Answer of questions. - Project file/code **Format:** - Zip file including file doc or docx for answer and project for code.
Indicators, Criteria, and Weight	:	- Perform all the steps in the lab Module (50%) - The results of the script that is executed according to the purpose (50%)
Project/Work Timeline	:	**Total duration:** **1 day** With details: 1. Module Lab Week 12 — Week 12
Others	:	
References	:	Material week 12

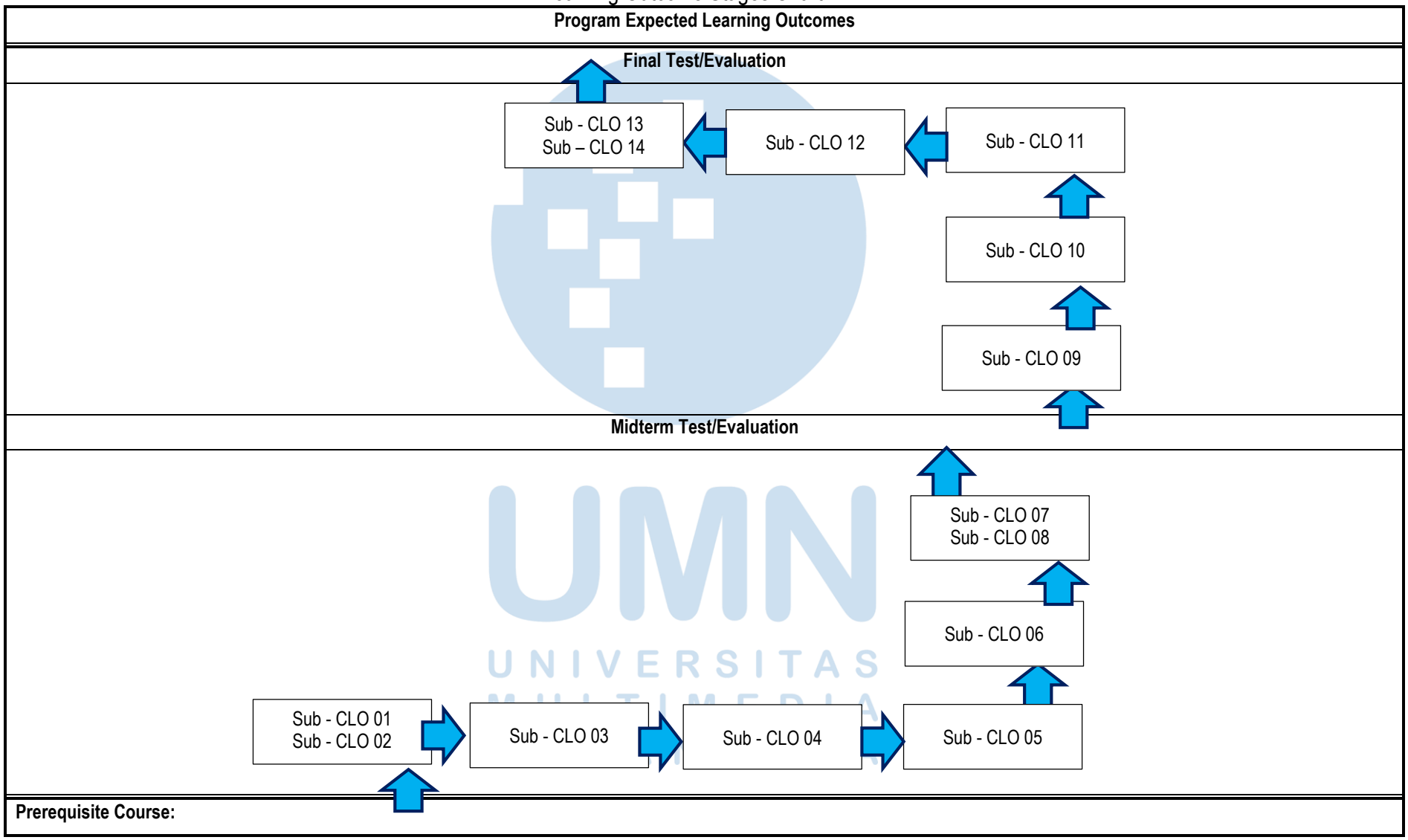
13. Lab Week 13

Course	:	Web Design and Development	Course Code	:	IS556
Task/Project Name	:	Practical Lab	Weight	:	3%
Related Sub-CLO	:	CLO1- SUB-CLO 13			

A. Individual Activities			
Description		Web promotion: search engine optimization	
B. Structured Work/Task			
Assessment Type	:	Practical Lab	
Description	:	- Students are able to recognize and implement the concept of web promotion.	
Output and format	:	**Output** - Answer of questions. - Project file/code **Format:** - Zip file including file doc or docx for answer and project for code.	
Indicators, Criteria, and Weight	:	- Perform all the steps in the lab Module (50%) - The results of the script that is executed according to the purpose (50%)	
Project/Work Timeline	:	**Total duration:** With details: 1. Module Lab Week 13	**1 day** Week 13
Others	:		
References	:	Material week 13	

Attachment: Learning Outcome Analysis

Learning Outcome Stages Chart



I. Revision History

Course Code	Revision No	Date in Effect	Changes
IS556	1	06/02/2023	ELO, CLO, Task and Lab Practicum