MINISTRY OF EDUCATION AND TRAINING
HO CHI MINH CITY OPEN UNIVERSITY

COURSE SYLLABUS

I. GENERAL INFORMATION

1. Course title in Vietnamese: **ỨNG DỤNG WEB**

2. Course title in English: **WEB APPLICATIONS**

3. Knowledge / skills categorization:

☐ General education   ☐ Specialized knowledge

☒ Basic knowledge   ☐ Supplementary knowledge

☐ Industry knowledge   ☐ Graduate thesis / thesis

4. Number of credit

Total	Theory	Practice	Self-study
3	2	01	3 (2,1,5)

5. In charge of subjects

a) Faculty / Department / Sub-Department: Information Technology

b) Faculty: MSc. Nguyen Thi Mai Trang

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II. COURSE INFORMATION

1. Course description

 This course provides the general knowledge of the HTML language, JavaScript, CSS, jQuery, how to program dynamic website (client-side), handle several common tools for designing website.

The knowledge provided allows student to create a basic website and it is the fundamental step to continue with the course Web Programming. Furthermore, students can acquire the skills necessary for the Project course, final thesis, and real-world application in industry.

2. Course conditions

#	Course conditions	Course code
1.	Prerequisites	
	None	
2.	Previous courses	
	Programming techniques	ITEC1505
3.	Parallel courses	
	None	

3. Course objectives (COs)

The course will provide students with ability to:

Course goals	Description	Related Program Learning Outcomes
CO1 (Knowledge)	- Students will have the knowledge and skills necessary to be able to build web applications at the browser side on the user's machine and the foundation for learning good web programming subjects. - Know and use syntax of languages HTML, CSS, JavaScript, jQuery. - Use well-known software for web design. - Know about hosting and the steps to deploy web applications to the host.	PLO3.3 PLO5.7
CO2 (Skills)	- Use and combine JavaScript, jQuery, HTML languages to program and handle website at the browser side. - Use well-known software for the web design. - Be able to create a web application, hosting registration and develop the application on hosting. - Know about hosting and the steps to deploy web applications to the host.	PLO3.3 PLO5.7
CO3 (Attitude)	- Recognize the importance and position of the subject. - Recognize the importance of knowledge and skills needed to be able to build a website. - Ability to self-study, read documents to apply knowledge learned in practice.	PLO13.1 PLO13.2 PLO13.3

4. Course learning outcomes (CLOs)

After completing this course, students are able to:

Course objectives (CO)	Course learning outcomes (CLO)	Description
CO1	CLO1.1	- Explain why users can access the website from a browser on a computer.
	CLO1.2	- Outstanding features of popular software in Web design such as Notepad ++, Sublime Text, Dreamweaver.
	CLO1.3	- Know how to choose the right hosting for each type of Web application.
	CLO1.4	- Using HTML, CSS, JavaScript, jQuery syntax in building Web applications.
CO2	CLO2.1	- Install and use popular software in Web design such as Notepad ++, Sublime Text, Dreamweaver
	CLO2.2	- Use HTML language to create web page content.
	CLO2.3	- Using CSS to design web interface in a reasonable and effective way.
CO3	CLO3.1	- Self-create web application, host registration, deploy to host and manage host.
	CLO3.2	- Manage and ensure legal content in your website when deployed on the host
	CLO 3.3	- Ability to self-learn and extend and apply new technologies such as HTML5, CSS3, Bootstrap to improve responsiveness of Web applications

Matrix of Course Learning Outcomes (CLOs) and Program Learning Outcomes (PLOs):

CLOs	PLO3.3	PLO5.7	PLO13.1	PLO13.2	PLO13.3
CLO 1.1	5	2			
CLO 1.2	5	3			
CLO 1.3	2	4			
CLO 1.4	4	2			
CLO 2.1	4	2	3	2	2
CLO 2.2	4	2	2	2	2
CLO 2.3	4	2	2		
CLO 3.1	3	3	3	2	2
CLO 3.2	3	3	3	2	2
CLO 3.3	3	2	3	2	2

1: Not supported   *4: Highly supported*

2: Partially supported　　　　　*5: Totally supported*
3: Supported

5.　Course materials

a)　*Textbooks*

[1] Nguyễn Thị Mai Trang, Ứng dụng web, Nhà xuất bản Thông tin và truyền thông, 2019.

b)　*Reference materials*

[2] Philippe Hong, Practical Web Design, Packt Publishing, 2018. [NK100000004693].

[3] Andy Harris, HTML5 and CSS3 All-in-One for Dummies®, John Wiley & Sons, Inc, 2014.

[4] Jonathan ChafferKarl Swedberg, Learning jQuery, Packt Publishing, 2013.

6.　Course assessment

Components	Assessment	Timing	Course learning outcomes (CLO)	Rate (%)
(1)	(2)	(3)	(4)	
A1.　Process Evaluation	Personal or group exercises: Register the host, deploy the application to the host	During the learning process	CLO3.1, CLO3.2 , CLO3.3	15%
	Total:			15%
A2.　Midterm Examination	Check on the machine	End of course	CLO2.1, CLO2.2, CLO2.3, CLO2.4	35%
	Total: 01	35%		35%
A3.　Final Examination	Final Examination	End of course	CLO1.1, CLO1.2, CLO1.3, CLO1.4, CLO2.1, CLO2.2, CLO2.3, CLO2.4	50%
	Total: 01	50%		50%
Total:				100%

7.　Rubrics review

a)　Midterm rubric (50%)

Teamwork / Individual assignment (15%)

Criteria	CLO	Weight	Excellent	Good	Fair	Poor
Register a host, deploy web applications to the host, administer the host.	1.1 1.3 3.1 3.2 3.3	30%	8.5 – 10 Register a host, deploy web applications to the host, administering the host ...	7 – 8 Register a host, upload and update exercises onto the host, the interface is at good level.	5 – 6.5 Register a host, upload and update exercises onto the host, the interface is at basic level	<5 Do not meet the average requirement
Exercises with guidelines.	1.2 1.4 2.1 2.2 2.3	70%	The exercises are done >= 85%.	The exercises are done 70% - <85%	The exercises are done 50% - <65%	Do not meet the average requirement
	Total	100%				

Assessment of practicing on computer (35%)

Criteria	CLO	Weight	Excellent	Good	Fair	Poor
Level of completion of the test	1.4 2.1 2.2 2.3	100%	8.5 – 10 User Interface (HTML, CSS) and functional processing (JavaScript / jQuery) are done >= 85% of the requirements of the exam	7 – 8 User Interface (HTML, CSS) and functional processing (JavaScript / jQuery) are done from 70% to 85% of the requirements of the exam	5 – 6.5 User Interface (HTML, CSS) and functional processing (JavaScript / jQuery) are done from 50% to 65% of the requirements of the exam	<5 Do not meet the average requirement

b) Final term rubric (50%)

Criteria	CLO	Weight	Excellent	Good	Fair	Poor
Multiple-Choice Test (20 questions)		**50% (5 Points)**	Scoring			
	1.1	5%		0.5	0.25	0
	1.4	30%	3	2-2.5	1.5	<1.5
	2.2	15%	1.5	1.25	0.75 - 1	<0.75
Writing (2 questions)		**50% (5 Points)**	Scoring / Criteria			

CSS	2.3 3.3	25%	2.25 - 2.5 Optimize selector and use of the advanced properties	1.75 - 2.0 Correct use of selectors and attributes	1.25 -1.5 Use the correct selector or attribute	<1.25
Javascript + jQuery	1.4	25%	2.25 – 2.5 Optimize code	1.75 - 2.0 Set up events and handle basic functionality	1.25 -1.5 Handle basic functions	<1.25
	Total	100%				

8. Teaching plans

Teaching plans for theory (4.5 class-time unit per session)

Week/session	Content	CLO	Teaching and learning activities	Reviews / Assessment	Main documents and references
(1)	(2)	(3)	(4)	(5)	(6)
1.Week 1/ Theory Session 1	Chapter 1: Overview of Internet and Web Technology 1.1 Overview of Internet 1.1.1 Introduction to Internet 1.1.2 Protocols 1.1.3 Domain 1.2 Overview of Web Technology 1.2.1 World Wide Web. 1.2.2 URL address 1.2.3 Web browser 1.2.4 Definition of Static Web and Dynamic Web 1.2.5 Web Activities 1.3 Software 1.3.1 Notepad ++ 1.3.2 Sublime	CLO 1.1 CLO 1.2 CLO 1.3 CLO 1.4	Teacher: + Introduction to Syllabus + Preach + Operation simulation + Ask students questions Student: + + Learning in class: attentive listening to lectures, take notes, answer questions + Study at home: Review lectures, redo examples in documents, learn websites for free hosting, install one of the web design software, preview lecture content for the next session	A1	[1] Chapter 1, 2 [2] Chapter 1, 5 [3] Part 1, Chapter 3

	Text 3 1.3.3 Adobe Dreamweaver 1.4 How to create and deploy a Web application. 1.4.1 Create Web application 1.4.2 Deploy the Web application to the host. Chapter 2: Overview of HTML 2.1 Introduction to HTML 2.2 Syntax and attributes of tags 2.2.2 Descriptions tag 2.2.3 Title, paragraph 2.2.4 Formatting		+ On LMS system: Do exercises, participate in discussion on forums.		
2.Week 2/ Theory Session 2	2.3 Hyperlink 2.4 List 2.5 Table 2.6 Multimedia 2.6.1 Pictures 2.6.2 Audio 2.6.3 Video 2.7 Form and control 2.7.1 Form 2.7.2 Controls 2.7.3 Form Accessibility Features 2.8 Introduction to HTML5 2.8.1 Introduction 2.8.2 New elements of HTML5	CLO 1.4 CLO 2.1 CLO 2.2 CLO 3.1 CLO 3.2 CLO 3.3	Teacher: + Introduction to Syllabus + Preach + Operation simulation + Ask students questions Student: + + Learning in class: attentive listening to lectures, take notes, answer questions + Study at home: Review lectures, redo examples in documents, learn websites for free hosting, install one of the web design software, preview lecture content for the next session	A1 A2 A3	[1] Chapter 2 [2] Chapter 5 [3] Part I, Chapter 4-7

			+ On LMS system: Do exercises, participate in discussion on forums.		
3. Week 3/ Theory Session 3	Chapter 3: CSS 3.1 Introduction to CSS 3.2 Type of CSS 3.2.1 Inline Style Sheet 3.2.2 Internal Style Sheet 3.2.3 External Style Sheet 3.2.4 Priority of CSS 3.3 Syntax CSS 3.3.1 Syntax 3.3.2 CSS selectors 3.4 Formatting a Web page with CSS. 3.4.1 Color and background 3.4.2 Text và Font 3.4.3 Format linked to CSS	CLO 1.4 CLO 2.1 CLO 2.2 CLO 2.3 CLO 3.1 CLO 3.2 CLO 3.3	Teacher: + Introduction to Syllabus + Preach + Operation simulation + Ask students questions Student: + + Learning in class: attentive listening to lectures, take notes, answer questions + Study at home: Review lectures, redo examples in documents, learn websites for free hosting, install one of the web design software, preview lecture content for the next session + On LMS system: Do exercises, participate in discussion on forums.	A1 A2 A3	[1] Chapter 3 [2] Chapter 6 [3] Part 2, chapter 1, 2, 3
4. Week 4/ Theory Session 4	3.4.4 Formatting a list with CSS 3.4.5 Box Model 3.4.6 Formatting Table with CSS 3.4.7 CSS Display 3.4.8 CSS Position 3.4.9 CSS Float and Clear 3.4.10 Layers	CLO 1.4 CLO 2.1 CLO 2.2 CLO 2.3 CLO 3.1 CLO 3.2	Teacher: + Introduction to Syllabus + Preach + Operation simulation + Ask students questions Student: + + Learning in class: attentive listening to	A1 A2 A3	[1] Chapter 3 [2] Chapter 6, 11, 12 [3] Part II, Chapter 4, 5, 6

		CLO 3.3	lectures, take notes, answer questions + Study at home: Review lectures, redo examples in documents, learn websites for free hosting, install one of the web design software, preview lecture content for the next session + On LMS system: Do exercises, participate in discussion on forums.		
3.4.11 New Features of CSS3 3.5 Introduction to Bootstrap 3.5.1 Introduction 3.5.2 Grid frameworks in Bootstrap 3.5.3 Bootstrap Components					
5.Week 5/ Theory Session 5	Chapter 4. JavaScript language 4.1 Introduction to JavaScript 4.1.1 Introduction 4.1.2 Embedding JS into web page. 4.2 Script language 4.2.1 JavaScript syntax 4.2.2 Variable 4.2.3 Operators 4.2.4 Boxes in JS 4.2.5 Function 4.2.6 Control structure 4.3 Objects in JavaScript 4.3.1 Object Data Type 4.3.2 String 4.3.3 Date 4.3.4 Math 4.3.5 Array 4.3.6 Browser Object Model 4.3.7 DOM	CLO 1.4 CLO 2.1 CLO 2.2 CLO 2.3 CLO 2.4 CLO 3.1 CLO 3.2 CLO 3.3	Teacher: + Introduction to Syllabus + Preach + Operation simulation + Ask students questions Student: + + Learning in class: attentive listening to lectures, take notes, answer questions + Study at home: Review lectures, redo examples in documents, learn websites for free hosting, install one of the web design software, preview lecture content for the next session + On LMS system: Do exercises,	A1 A2 A3	[1] Chapter 4 [3] Part IV, Chapter 1-4

			participate in discussion on forums.		
6.Week 6/ Theory Session 6	4.4 Event handling 4.5 Verification of data 4.6 Introduction to graphics by HTML5 Chapter 5. jQuery 5.1 Introduction to jQuery 5.1.1 Introduction to jQuery library 5.1.2 Download and using jQuery 5.1.3 Selecting jQuery 5.2 Event handling 5.2.1 Events on jQuery 5.2.2 Events on browser windows and documents 5.2.2 Form events 5.2.3 Mouse events 5.2.4 Keyboard events	CLO 1.4 CLO 2.1 CLO 2.2 CLO 2.3 CLO 2.4 CLO 3.1 CLO 3.2 CLO 3.3	Teacher: + Introduction to Syllabus + Preach + Operation simulation + Ask students questions Student: + + Learning in class: attentive listening to lectures, take notes, answer questions + Study at home: Review lectures, redo examples in documents, learn websites for free hosting, install one of the web design software, preview lecture content for the next session + On LMS system: Do exercises, participate in discussion on forums.	A1 A2 A3	[1] Chapter 4, 5 [2] Chapter 8 [3] Part IV, chapter 5, 6 [4] Chapter 1, 2, 3
7.Week 7/ Theory Session 7	5.3 Manipulation with DO 5.3.1 Access element content 5.3.1 Access element attribute 5.3.3 Insert content/element 5.3.4 Remove content/element 5.3.5 Update CSS 5.3.6 Set the size for the element 5.4 Moving in	CLO 1.4 CLO 2.1 CLO 2.2 CLO 2.3 CLO 2.4 CLO 3.1 CLO 3.2	Teacher: + Introduction to Syllabus + Preach + Operation simulation + Ask students questions Student: + + Learning in class: attentive listening to lectures, take notes, answer questions	A1 A2 A3	[1] Chapter 5 [4] Chapter 4, 5, 9, 11, 12

	DOM	CLO 3.3	+ Study at home: Review lectures, redo examples in documents, learn websites for free hosting, install one of the web design software, preview lecture content for the next session		
	5.4.1 Select parent elements				
	5.4.2 Select child elements				
	5.4.3 Browse trees on DOM				
	5.4.4 Select the elements according to the filter conditions				
	5.5 Create effects on web page with jQuery				
	5.5.1 Show / hide elements.		+ On LMS system: Do exercises, participate in discussion on forums.		
	5.5.2 Blur / clear elements.				
	5.5.3 Setting sliding effect for element.				
	5.5.4 Animation for the element.				

Teaching plans for practices (3.0 class-time unit per session)

Week/session	Content	CLO	Teaching and learning activities	Reviews / Assessment	Main documents and references
(1)	(2)	(3)	(4)	(5)	(6)
1.Week 1 / Practice Session 1	Chapter 1: - Register free host - Using software Notepad++ (or Sublime Text) to create a simple web page, upload new web page to hosting Chapter 2: - Do the exercises for the HTML part	CLO 2.1 CLO 2.2 CLO 3.1	Teacher: + Introduction to Syllabus + Preach + Operation simulation + Ask students questions Student: + + Learning in class: attentive listening to lectures, take notes, answer questions + Study at home: Review lectures, redo examples in documents,	A1	[1] Chapter 1, 2 [2] Chapter 1, 5 [3] Part 1, Chapter 3

			learn websites for free hosting, install one of the web design software, preview lecture content for the next session + On LMS system: Do exercises, participate in discussion on forums.		
2.Week 2 / Practice Session 2	- Continue to do the HTML part of the test	CLO 2.1 CLO 2.2 CLO 3.2 CLO 3.3	Teacher: + Introduction to Syllabus + Preach + Operation simulation + Ask students questions Student: + + Learning in class: attentive listening to lectures, take notes, answer questions + Study at home: Review lectures, redo examples in documents, learn websites for free hosting, install one of the web design software, preview lecture content for the next session + On LMS system: Do exercises, participate in discussion on forums.	A1 A2 A3	[1] Chapter 2 [2] Chapter 5 [3] Part I, Chapter 4-7
3.Week 3 / Practice Session 3	Chapter 3: - Do the exercises for the CSS part	CLO 2.1 CLO 2.2	Teacher: + Introduction to Syllabus + Preach	A1 A2 A3	[1] Chapter 3 [2] Chapter 6 [3] Part 2, chapter 1, 2, 3

		CLO 2.3 CLO 3.2 CLO 3.3	+ Operation simulation + Ask students questions Student: + + Learning in class: attentive listening to lectures, take notes, answer questions + Study at home: Review lectures, redo examples in documents, learn websites for free hosting, install one of the web design software, preview lecture content for the next session + On LMS system: Do exercises, participate in discussion on forums.		
4.Week 4/ Practice 4	- Continue to do the CSS part of the test	CLO 2.1 CLO 2.2 CLO 2.3 CLO 3.2 CLO 3.3	Teacher: + Introduction to Syllabus + Preach + Operation simulation + Ask students questions Student: + + Learning in class: attentive listening to lectures, take notes, answer questions + Study at home: Review lectures, redo examples in documents, learn websites for free hosting,	A1 A2 A3	[1] Chapter 3 [2] Chapter 6, 12 [3] Part II, Chapter 4, 5, 6

			install one of the web design software, preview lecture content for the next session + On LMS system: Do exercises, participate in discussion on forums.		
5.Week 5/ Practice 5	- Do the exercises for the Javascript part	CLO 2.1 CLO 2.2 CLO 2.3 CLO 2.4 CLO 3.2 CLO 3.3	Teacher: + Introduction to Syllabus + Preach + Operation simulation + Ask students questions Student: + + Learning in class: attentive listening to lectures, take notes, answer questions + Study at home: Review lectures, redo examples in documents, learn websites for free hosting, install one of the web design software, preview lecture content for the next session + On LMS system: Do exercises, participate in discussion on forums.	A1 A2 A3	[1] Chapter 4 [3] Part IV, Chapter 1-6
6.Week 6/ Practice 6	- Continue to do the Javascript part of the test	CLO 2.1 CLO 2.2 CLO 2.3	Teacher: + Introduction to Syllabus + Preach + Operation simulation	A1 A2 A3	[1] Chapter 4, 5 [3] Part IV, chapter 1-6 [4] Chapter 1, 2, 3, 4, 5, 9, 11, 12

		CLO 2.4 CLO 3.2 CLO 3.3	+ Ask students questions Student: + + Learning in class: attentive listening to lectures, take notes, answer questions + Study at home: Review lectures, redo examples in documents, learn websites for free hosting, install one of the web design software, preview lecture content for the next session + On LMS system: Do exercises, participate in discussion on forums.		
7.Week 7/ Practice 7	- Do the exercises for the jQuery part	CLO 2.1 CLO 2.2 CLO 2.3 CLO 2.4 CLO 3.2 CLO 3.3	Teacher: + Introduction to Syllabus + Preach + Operation simulation + Ask students questions Student: + + Learning in class: attentive listening to lectures, take notes, answer questions + Study at home: Review lectures, redo examples in documents, learn websites for free hosting, install one of the web design	A1 A2 A3	[1] Chapter 5 [4] Chapter 1, 2, 3, 4, 5, 9, 11, 12

			software, preview lecture content for the next session + On LMS system: Do exercises, participate in discussion on forums.		
8.Week 8/ Practice 8	- Continue to do the jQuery part of the test	CLO 2.1 CLO 2.2 CLO 2.3 CLO 2.4 CLO 3.2 CLO 3.3	Teacher: + Introduction to Syllabus + Preach + Operation simulation + Ask students questions Student: + + Learning in class: attentive listening to lectures, take notes, answer questions + Study at home: Review lectures, redo examples in documents, learn websites for free hosting, install one of the web design software, preview lecture content for the next session + On LMS system: Do exercises, participate in discussion on forums.	A1 A2 A3	[1] Chapter 5 [4] Chapter 1, 2, 3, 4, 5, 9, 11, 12
9.Week 9/ Practice 9	Do synthesis of the lessons	CLO 2.1 CLO 2.2 CLO 2.3 CLO 2.4	Teacher: + Introduction to Syllabus + Preach + Operation simulation + Ask students questions	A1 A2 A3	[1] Chapter 2, 3, 4, 5

		CLO 3.2 CLO 3.3	Student: + + Learning in class: attentive listening to lectures, take notes, answer questions + Study at home: Review lectures, redo examples in documents, learn websites for free hosting, install one of the web design software, preview lecture content for the next session + On LMS system: Do exercises, participate in discussion on forums.		
10.Week 10/ Practice 10	Practice -Create a complete website	CLO 2.1 CLO 2.2 CLO 2.3 CLO 2.4 CLO 3.2 CLO 3.3	Teacher: + Introduction to Syllabus + Preach + Operation simulation + Ask students questions Student: + + Learning in class: attentive listening to lectures, take notes, answer questions + Study at home: Review lectures, redo examples in documents, learn websites for free hosting, install one of the web design software, preview lecture	A1 A2 A3	[1] Chapter 2, 3, 4, 5

			content for the next session + On LMS system: Do exercises, participate in discussion on forums.		

9.   Course regulations

-       Students participate fully in theory and practice sessions.

-       Process exercises, practical exercises to be deployed directly on the host, provide URL on LMS.

-       Students who do not participate in forums on the LMS do not have progress points.

DEAN OF FACULTY	**EDITOR**
(Sign and specify full name)	*(Sign and specify full name)*
Dr. Le Xuan Truong	MSc. Nguyen Thi Mai Trang