



## **CS 205 - VISUAL PROGRAMMING II / 2 برمجة مرئية 2 / 2**

College/Institute	College of Business Studies
Scientific Department	Computer and Information Systems
Course Title	Visual Programming 2 / 2 برمجة مرئية 2 / 2
Course Number	CS 205
Language of Instruction	English
Prerequisites	CS 173 and 153
Credits	5
Hours	6
Theoretical Hours per week	4
Practical Hours per Week	2
Category	Major Core

### **COURSE DESCRIPTION**

This course teaches the fundamentals of Web applications and implementation using the up-to-date web programming technologies. This course passes through four major phases. First, review and enhance the I/O concepts discussed earlier ( CS103 / CS173 ) ensuring that the persistency needs of any software application is fulfilled. Then, the basic knowledge required to develop Web Models will be introduced, followed by the essential methods required to incorporate XHTML within Web Views, and finally, introduce state-full techniques to handle user requests over the stateless HTTP environment. The course shall be taught using an up-to-date Web-enabled IDE. The student will develop a project that incorporates all topics that have been previously covered.

### **COURSE OBJECTIVES**

1. Familiarize the student with modern web (application) server architectures.
2. Understand the difference between client side and server side programming.
3. Achieve proficiency in Basic Server-side Programming.
4. Understand the server program life-cycle model.
5. Understand Web View.
6. Apply the Model-View-Controller (MVC) concept.
7. Incorporate HTML, Server-side programs, Server-side Views, and File I/O functionality to produce comprehensive dynamic web sites.
8. Work with HTTP Sessions and Cookies.



## OUTLINE OF TOPICS AND SEQUENCE

Seq.	Topics	Week#	Theo. Hours	Pract. Hours
1	Work with Binary Files	1, 2	8	4
2	Work with Text Files	3, 4	8	4
3	An Introduction to Web and How to Install and Use Web IDE	5	4	2
4	Develop Server View (example: Java Server Pages)	6, 7	8	4
5	Develop Server Model (example: Java Servlet)	8	4	2
6	Structure a Web Application (MVC)	9, 10	8	4
7	Project Discussion	11	4	2
8	Work with Sessions	12,13	6	2
9	Work with Cookies	13	2	2
<b>Total Theoretical and Practical Hours</b>			<b>52</b>	<b>26</b>

## DELIVERY METHODS

- ◆ Lectures: 4 hours per week ( i.e. 4 credit)
- ◆ Laboratories: 2 hours per week ( i.e. 1 credit)

## RECOMMENDED TEXT / OTHER LEARNING MATERIALS / AND REFERENCES

[Text] Murach's Java Servlets and JSP, 2nd Edition  
[Author] Andrea Steelman Joel Murach  
[Publisher] Mike Murach & Associates; 2nd edition (February 16, 2010)  
[ISBN13] 978-1890774448 [ISBN10] 1890774448

## EVALUATION METHODS

Students will be evaluated as follows:

Evaluation Method	Percentage
Lab Work	5%
Quizzes	20%
Midterm Exam(s)	10%
Course Project	15%
Final Examination ( Theoretical )	50%
Total	100%