COURSE SYLLABUS

COM289: Internet Programming III

Course Description

This course expands on the fundamentals of the Java programming language. Projects introduce the student to the creation of web application utilizing Java Servlets and Java Server Pages. The student gains facility in the merging of Java with Structured Query Language and the MySQL database.

General Course Information

Number of Units/Weeks	4/10
#Hours Lecture/#Hours Laboratory/#Hours Homework	30/20/60
Prerequisite(s)	COM152 or COM285, COM122 or COM287
Co-requisites (s)	N/A
Course Developer(s)	Jason Abel, MS BTM
Date Approved / Last Review	November 2012/October 2014

Learning Outcomes

Upon successful completion of the course, students will have proven competency in:

   Producing dynamic Web content using sound design and current Java technologies.
   Incorporating data persistence into a Web application.
   Secure data transmissions between client and server in the Web environment.
   Restrict data assets to authorized users.

Instructional Methods Employed in this Course

Lecture and reading assignments
Hands-on exercises and labs
Research
Practical application of theory and skills in authentic projects
Build on prior knowledge and experience of students to enhance richness of class activities

Information Resources for this Course

📖 Textbook

Murach, M. & Steelman, A. (2014). *Murach's Java servlets and JSP (3rd Ed.)*, U. S. A.: Mike Murach & Associates.

📂 Other Materials

N/A

✍ Drawing tools

N/A

🖱 Web Site Readings

tomcat.apache.org

www.oracle.com/technetwork/java/api-141528.html

netbeans.org

mysql.com

Table/Topics & Assignments
Types of Assignments:
Lecture: Considered Lecture Hours
Classroom Discussion: Considered Lecture Hours
In Class Critique: Considered Lecture Hours
Delivering Oral Presentations: Considered Lecture Hours
In Class (IC) Exercise: Considered Lecture Hours
Reading: Considered Homework (HW), work done outside of class.
WebClass lesson (non-online courses): Considered HW, work done outside of class
Lab Work: Considered Lab Hours
Quiz, Midterm or Final: Considered Lecture Hours

Week 1						
Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 1A	Java Web Application Overview	2				
LEC 1B	Model-View-Controller (MVC) Design Pattern introduction	2				
LAB 1A	Model 1 versus MVC Web application.		4			
HW 1A	Read chapters 1, 2, & 3 (85 pages). Evaluated in HW1B			8.5		
HW 1B	Create a Web application using Java Web technologies			2	50	Week 2
Total Week 1		4	4	10.5	50	
Week 2						
Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 2A	Information presentation through HTML and CSS	1				
LEC 2B	Controller Layer: Java Servlets	3				
HW 2A	Read chapters 4 & 5 (83 pages). Evaluated in HW 2B			8.3		
HW 2B	Presenting information via deployed Servlets			2	50	Week 3
Total Week 2		4	0	10.3	50	
Week 3						
Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 3A	View Layer: JSPs	2				
LEC 3B	Maintaining state in Web applications	2				

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LAB 3A	Comparing JSP technologies, EL and JSTL		4			
HW 3A	Read chapters 6 & 7 (50 pages). Evaluated in HW 3B			5		
HW 3B	Manipulating session persistence tools			3	100	Week 4
Total Week 3		4	4	8	100	

Week 4

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 4A	Expression Language features & use	2				
IC EX 4A	Java Standard Template Library	2				
HW 4A	Read chapters 8 & 9 (63 pages)			6.3		
HW 4B	Create a Web application using EL & JSTL			3	100	Week 5
Total Week 4		4	0	9.3	100	

Week 5

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 5A	Hows and whys of custom tags	3				
LAB 5A	Deploying a custom tag		4			
Exam 5A	Midterm exam (Chapters 1 - 10)	1			100	Week 5
HW 5A	Read chapter 10 (39 pages). Evaluated in HW 5B			3.9		
HW 5B	Defining and using a custom tag			3	100	Week 6
Total Week 5		4	4	6.9	200	

Week 6

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 6A	Structured Query Language and the MySQL engine	2.5				
LEC 6B	Java Data Base Connectivity implementations	1.5				
HW 6A	Read chapters 11 & 12 (74 pages). Evaluated in HW 6B			7.4		
HW 6B	Present data base data using JDBC			2	100	Week 7
Total Week 6		4	0	9.4	100	

Week 7

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 7A	Java Persistence API	3				
LEC 7B	Java Mail	1				
LAB 7A	Automating email transmissions for Web applications		4			
HW 7A	Read chapters 13 & 14 (60 pages). Evaluated in HW 7B			6		

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
HW 7B	Implementing data persistence through the JPA			3	100	Week 8
Total Week 7		4	4	9	100	

Week 8

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 8A	Client/server connections and security	2.5				
LEC 8B	Java's interfaces for the HTTP request and response	1.5				
HW 8A	Read chapters 15 & 18 (66 pages). Evaluated in HW 8B			6.6		
HW 8B	Establish a secure connection.			2	100	Week 9
Total Week 8		4	0	8.6	100	

Week 9

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 9A	Restricting access to Web assets	4				
LAB 9A	Securing the connection, restricting the assets		4			
HW 9A	Read chapter 16 (41 pages). Evaluated in HW 9B			4.1		
HW 9B	Create a secure Web application			4	100	Week 10
Total Week 9		4	4	8.1	100	

Week 10

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 10A	Additional security considerations	3				
EXAM 10A	Final exam	1			100	Week 10
HW 10A	Read chapter 17 (18 pages). Evaluated in EXAM 10A					
Total Week 10		4	0	0	100	

Course Hours Summary

Week	Topic	LEC Hours	LAB Hours	HW Hours
1		4	4	10.5
2		4	0	10.3
3		4	4	8
4		4	0	9.3
5		4	4	6.9
6		4	0	9.4
7		4	4	9

8		4	0	8.6
9		4	4	8.1
10		4	0	0
Total		40	20	80.1

Table/Point Breakdown

Assignment Type	Possible Points	Percentage of Grade
Graded homework	800	80%
Midterm	100	10%
Final	100	10%
Total	1000	100%

Your Grades for this Course

Your final grade for this course will be based on an assessment by the Instructor of your performance on a number of course activities, which may include objective tests, classroom exercises, laboratory demonstrations, project papers, or other types of activities. The chart below indicates in what activities you will engage, how many possible points can be earned for each activity, and the percentage of your final grade that will be accounted for by each activity.

Students in this course should be graded following Coleman University assessment practices and policies. A point system is used in the University to indicate student performance on various required activities or projects. For this course, it is recommended that points be distributed as follows:

Your Grades for this Course

Your final grade for this course will be based on an assessment by the Instructor of your Students in this course should be graded following Coleman University assessment practices

Coleman University Grade Assignment Policy:

Percent	Letter Grade	Grade Points
94-100	A	4
90-93	A-	3.67
87-89	B+	3.33
84-86	B	3
80-83	B-	2.67
77-79	C+	2.33
74-76	C	2
70-73	C-	1.67
67-69	D+	1.33
64-66	D	1
60-63	D-	0.67
N/A	INC	0
N/A	W	0

60 or above	CR	0
59 or below	NC	0
N/A	I	0
N/A	W	0
N/A	AU	0
N/A	TR	0
N/A	WV	0

Legend	
CR = Credit	NC = No Credit
I = Incomplete	Withdrawal
AU = Audit	TR = Transfer Credit
WV = Waiver	

Academic Accommodation / Adjustment Policy:

In accordance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA), Coleman University offers accommodations to students with documented physical, psychological, and/or cognitive disabilities. Coleman University will adhere to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations as required to offer equal educational opportunities to qualified disabled individuals.

To qualify for an academic accommodation under ADA, the student must provide adequate documentation of a disability. Students seeking academic accommodations should contact the campus ADA Coordinator at 858-966-3953 or via email at ada@coleman.edu. The ADA Coordinator will review the documentation provided and verify ADA coverage. Students covered under ADA must meet with the ADA Coordinator at the beginning of every term to determine the appropriate academic accommodations. Failing to meet with the ADA Coordinator at the beginning of every term may impact the availability of accommodations.

After the academic accommodations have been determined, the students' instructors will be notified by the ADA Coordinator. If any problems or concerns regarding the provision of accommodations occur, the student must inform the ADA Coordinator. If the student feels accommodation is not being made appropriately, the student may follow the published Student Grievance Procedures.