COURSE SYLLABUS
COM242: Server-Side Web Development

Course Description
In this course the student will learn to develop applications that serve as the informational backbone for the World Wide Web and Internet services. The student will create dynamically-generated web pages, draw and deliver information from database systems, secure information assets, receive validated inputs, and deliver, retrieve, and manipulate files, images and other assets.

General Course Information

Number of Units/Weeks	4/10
#Hours Lecture/#Hours Laboratory/#Hours HW*	30/20/60
Prerequisite(s)	COM222, COM230
Co-requisites (s)	N/A
Course Developer(s)	Jason Abel, MS BTM
Date Approved / Last Review	May 2016/May 2014

* Homework

Learning Outcomes
The learner will translate hypertext transfer protocol through a programmed server platform at an introductory proficiency.

The learner will apply session management to web applications at an introductory proficiency.

The learner will apply basic security measures to a restricted access web application.

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, J., & Urban, M. (2014). Murach's Java Servlets and JSP (3rd ed.). Murach & Associates.

Other Materials
Java development IDE, JSP & Servlet web engine, MySQL database engine.

Drawing tools
N/A

Web Site Readings
http://docs.oracle.com/cd/E21764_01/web.1111/e13712/basics.htm#WBAPP117

https://www.khanacademy.org/computing/computer-science/cryptography/modern-crypt/v/diffie-hellman-key-exchange-part-2

http://www.tutorialspoint.com/mysql/

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	Server web applications	1				
LEC	Database as a foundation for web applications	3				
LAB	Review database design and creation		4			
HW	Create a database for term projects			4	150	Week 2
HW	Read chapters 1, 11, 12			8		Week 2
Total Week 1		4	4	12	150	
Week 2						
Type	**Topic/Description**	**LEC Hours**	**LAB Hours**	**HW Hours**	**Point Value**	**Due**
LEC	Object-oriented data modeling	3				
LEC	Drawing records from a DBMS	1				
HW	Build database entity classes & test units			4	100	Week 3
HW	Read chapters 4, 6			3		Week 3
Total Week 2		4	0	7	100	
Week 3						
Type	**Topic/Description**	**LEC Hours**	**LAB Hours**	**HW Hours**	**Point Value**	**Due**
LEC	Presentation syntax & styling	1.5				
LEC	Introduction of the Model/View/Controller (MVC) design pattern	2.5				
LAB	Serve database records using the view		4			

HW	Read chapters 5, 18			4		Week 4
HW	Produce a basic set of web pages that present data drawn from database			6	100	Week 4
Total Week 3		4	4	10	100	

Week 4

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC	HTTP Protocol features and details	1.5				
LEC	MVC design pattern continued	2.5				
HW	Application of Request/Response Cycle via MVC			6	150	Week 5
HW	Read chapter 7			3		Week 5
Total Week 4		4	0	9	150	

Week 5

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC	MVC Pattern - how the pieces fit together	3				
LAB	Create query form & data presentation		4			
Mid-term	Exam on chapters 1, 4, 5, 6, 7, 11, 12, 18	1			25	Week 5
HW	Read chapter 8			3		Week 6
Total Week 5		4	4	3	25	

Week 6

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC	Enhanced View data presentation approaches	4				
HW	Read chapter 9			3		Week 7
HW	Present data using dynamic expressions and data structure access			5	100	Week 7
Total Week 6		4	0	8	100	

Week 7

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC	Using libraries to present data in common tasks	4				
LAB	Application of common task library functions		4			
HW	Read chapter 15, 16			5		Week 8
HW	Present data using dynamic expressions and data structure access, common task libraries			6	150	Week 8
Total Week 7		4	4	11	150	

Week 8

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC	Securing web communications	4				
HW	Review materials regarding security algorithms			2		
Total Week 8		4	0	2	0	
Week 9						
Type	**Topic/Description**	**LEC Hours**	**LAB Hours**	**HW Hours**	**Point Value**	**Due**
LEC	Restricting access to Web resources	4				
LAB	Secure web application		4			
HW	Read chapter 19			3		Week 10
HW	Build a secure web application			6	200	Week 10
Total Week 9		4	4	9	200	
Week 10						
Type	**Topic/Description**	**LEC Hours**	**LAB Hours**	**HW Hours**	**Point Value**	**Due**
LEC	Further security concerns	2				
LEC	Final exam	1			25	Week 10
Total Week 10		3	0	0	25	

Course Hours Summary

Week	Topic	LEC Hours	LAB Hours	HW Hours
1	Introduction to web applications	4	4	12
2	OOP data models	4	0	7
3	Presentation & MVC	4	4	10
4	MVC & HTTP	4	0	9
5	MVC Pattern	4	4	3
6	Presentation Tools	4	0	8
7	Presentation Tools continued	4	4	11
8	Secure connections	4	0	2
9	Authorization & Authentication	4	4	9
10	More security issues	3	0	0
Total		39	20	71

Table/Point Breakdown

Assignment Type	Possible Points	Percentage of Grade
Quizzes		0%

Graded homework	950	95%
Midterm	25	3%
Final	25	3%
Lab projects	0	0%
Lab projects	0	0%
Participation	0	0%
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:

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
70 or above	PASS	0

Requirements

Assignments: All assignments (including projects, lab work, quizzes and exams) must be completed as scheduled. The following will apply to late assignments:

1-24 hours after due date = 20% off point value

25-48 hours after due date = 60% off point value
49+ hours after due date = No points given

If an assignment equals less than 5 points, no points will be given for late work. If there are extenuating circumstances, the student must submit a written explanation to the department Senior Instructor. Upon evaluation, points will be given according to the Senior Instructor's discretion.

Coleman University Policy on Academic Dishonesty:

Academic dishonesty is cause for dismissal from Coleman University. Presenting another person's ideas, methods, course work, or test answers with the intention that they be taken as one's own is theft of a special kind. It defrauds the originator of the work, the institution, its graduates, its students, and its future students.

The student has full responsibility for the authenticity of all academic work and examinations submitted. A student who appears to have violated this policy must submit to a hearing with the reporting instructor and the associate dean. If it is determined that a violation occurred, the matter will be referred to an Officer of the University with recommendations for an appropriate penalty. The student may be dismissed, suspended, or given another penalty.

Coleman University employs the plagiarism software known as Turnitin. Students are expected to use this tool in an appropriate manner with the sole purpose to support their own academic endeavors at Coleman University. Turnitin account information can not be shared with anyone. Contact your instructor if you have any questions about plagiarism related issues.

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.