



# COURSE SYLLABUS

## 2024-2025

### ***Web Technologies***

### **CS355**

Second Semester 2024/2025



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**German Jordanian University (GJU)**

**COURSE SYLLABUS**

**1 General Course Information**

*Title and Code of the course: Web Technologies CS355*

*Class Meeting Times:*

Sections	Sunday	Monday	Tuesday	Wednesday	Thursday	Instructor	Room
1	11:00-12:30		11:00-12:30 + 2:00 – 4:00			Ismail Hababeh	M424
2		12:30-2:00		12:30-2:00 + 2:00-4:00		Kholoud Nairoukh	M227

Course Level Acc. To NQF*					Equivalent Hours			Equivalent hours*
5 <sup>th</sup> <input type="checkbox"/>	6 <sup>th</sup> <input type="checkbox"/>	7 <sup>th</sup>  X	Cr.Hrs	ECTS	Contact	Independent Learning	Assessment	(130) equivalent hours
			3	5	48	24	58	
			*1 ECTS course must include 25 to 30 equivalent hours *2 ECTS course must include 50 to 60 equivalent hours *3 ECTS course must include 75 to 90 equivalent hours *4 ECTS course must include 100 to 120 equivalent hours *5 ECTS course must include 125 to 150 equivalent hours *6 ECTS course must include 150 to 180 equivalent hours					

*National Qualification Framework*

*Coordinator's name and title: Dr. Ismail Hababeh*

*Instructor's name and title: Dr. Ismail Hababeh*

*Office hours:*

*Dr. Ismail Hababeh: By appointment or on the following:*

Sunday	Monday	Tuesday	Wednesday	Thursday	Location
9:30-11:00	9:30 – 11:00	9:30-11:00	9:30 – 11:00		<b>M319</b>

*Ismail Hababeh: Room: M319, Electrical Engineering & Info. Technology, 3<sup>rd</sup> Floor, Building M.*

*Email: [ismail.hababeh@gju.edu.jo](mailto:ismail.hababeh@gju.edu.jo)*

*Number of credits: 3 credits*



*Prerequisites:* CS117, CS263

*Contact Hours:*

- *Lecture: 3 hours*

## 2 Course References

1. **Textbook:** "Learning Web Design, Fourth Edition" Robbins, Jennifer Niederst, 2021.
2. "Programming the world wide web" Sebesta, Robert W., 2002.
3. *Beginning PHP 5 and MySQL: From Novice to Professional* by W. Jason Gilmore.
4. *Internet and World Wide Web: How To Program 5th Edition*
5. *Head First Servlets and JSP, 2nd Edition.* Kathy Sierra, Bryan Basham, Bert Bates, Released March 2008, Publisher(s): O'Reilly Media, Inc. ISBN: 9780596516680
6. Griffiths, I., 2024. *Programming C# 12: Build Cloud, Web, and Desktop Applications.* "O'Reilly Media, Inc."
7. *Lecture Notes*

### 3 Course Overview

*This course enables students to create dynamic and interactive websites using web technologies tools such as HTML, CSS, and JavaScript to develop client-side webpages and using PHP and MySQL to build the server-side scripting. This will allow students to create websites that can store, access, and connect to data stored in the database and enable them to perform SQL queries to produce the needed results.*

### 4 Course Description

*This course explores topics in Internet and Web technology; Mobile components; Event handling: detection, notification, and response; Web applications development; Standard web services and protocols: WSDL, and UDDI, and SOAP; Design of web services and applications within a service-oriented architecture; Web application languages: HTML, XML, and scripting languages; Programming techniques for consumption and implementation of web services; Server web applications; Java servlets, and Java Server Pages; PHP basics; PHP forms and sessions; Databases connection with SQL and PHP. The practical part of this course will focus on training the students on various web development tools, like HTML, XML, and PHP.*

### 5 Course Objectives

- *Understanding of contemporary web design*
- *Recognize, learn and implement the best practices used by web designers*
- *Write a standard HTML document involving a different element types, including hyperlinks, images, lists, tables, and forms*
- *Use CSS to implement a variety of presentation effects in HTML documents, including explicit positioning of elements*
- *Create websites with HTML/CSS*
- *Write a client-side function that uses a regular expression to validate form entry.*
- *Develop event-driven programs that use HTML intrinsic event attributes, DOM event listeners, and DOM-generated events.*
- *Describe how a web server responds to an HTTP request for a dynamic resource*
- *Explain parameters passing from client to server, including the generation of query strings from forms and server-side processing*
- *Describe sessions conceptually and explain how the concept can be implemented using cookies and URL rewriting*
- *Explain common security threats such as cross-site scripting and malformed HTTP requests and demonstrate avoidance techniques for each*
- *Develop a web application that employs the MVC architecture*



## 6 Course Learning Outcomes (CLOs)

A student who successfully fulfills the course requirements has the ability:

Number	Matching PLO	Course Learning Outcomes	Type
a.	PLO 1.1	To define complex engineering problems.	Knowledge
b.	PLO 1.2	To formulate and model complex computational problems by applying principles of computation, science, and mathematics.	Competencies
c.	PLO 1.3	To solve complex engineering problems by applying principles of engineering, science, and mathematics.	Skills
d.	PLO 2.1	To define and identify software design requirements and design strategy, as well as define and identify design constraints considering public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.	Knowledge
e.	PLO 2.2	To use a methodical process to develop and evaluate feasible software solutions against specifications/requirements considering public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors, as well as select a solution by considering risks and making appropriate trade-offs.	Skills
f.	PLO 3.1	To compose and construct clear, professional content, reports, and graphical communication documents.	Competencies
g.	PLO 3.2	To develop and compose clear and professional presentations/views to various audiences.	Competencies
h.	PLO 4.2	To analyze and illustrate your opinion with consideration of the impact of software solutions in global, economic, environmental, and societal contexts.	Skills
i.	PLO 6.1	To develop and assess an experimental procedure.	Competencies
j.	PLO 6.2	To analyze and interpret data collected from the experiment. Use scientific judgment to draw conclusions about the outcomes of an experiment.	Skills



k.	PLO 7.1	To describe new knowledge using appropriate learning strategies.	Skills
l.	PLO 7.2	To apply new knowledge using appropriate learning strategies.	Skills

## 7 Main Topics

- Introduction to Internet
- Concepts of HTTP, URI, Web browsers, Web servers, HTML, CSS
- Cascading Style Sheets CSS
- Introduction to Java Script
- JSP Application Design
- Introduction to Servlets
- JDBC (Java Database Connectivity)
- PHP
- XML
- Document Object Model (DOM) API
- Cookies and Sessions

## 8 Course Evaluation

Assessment type	Assessed ILOs	Number of assessments	weight
Exams		Midterm Exam 1	30%
		Assignment 1 (5%)	
Class Work		Assignment 2 (5%)	30%
		Assignment 3 (5%)	
		Course Project (15%)	
Exams		Final Exam	40%
Total			100%

### Guidelines for written assignments:

- All assignments, tasks, and reports should be submitted as electronic copies and must be uploaded to Moodle. Any assignment not uploaded to Moodle after the deadline will not be considered.
- For more comprehensive information about project requirements and due dates, please refer to the course project file.



## 9 Course Alignment with Sustainable Development Goals (SDGs)

- **SDG 3: Good Health and Well-being:** Object-Oriented Programming course contributes to the development of advanced diagnostic tools, monitoring devices, and treatment methods, leading to improved healthcare outcomes and better overall health and well-being.
- **SDG 4: Quality Education:** Object-Oriented Programming course contributes to educating professionals and researchers who can develop and apply cutting-edge technologies, enhancing the quality of education in the field.
- **SDG 8: Decent Work and Economic Growth:** The field of Object-Oriented Programming creates job opportunities in research, development, data science and artificial intelligence technologies, contributing to economic growth and employment.
- **SDG 9: Industry, Innovation, and Infrastructure:** Object-Oriented Programming course involves the development of innovative technologies and tools for industry, leading to advancements in software infrastructure and the re industry.
- **SDG 10: Reduced Inequalities:** Reduce inequality within and among countries. Object-Oriented Programming can help bridge software disparities by providing remote monitoring and diagnostic tools, making applications more accessible to underserved populations.
- **SDG 11: Sustainable Cities and Communities:** Object-Oriented Programming supports the development of smart software technologies, contributing to the creation of sustainable and efficient application systems in urban areas.
- **SDG 17: Partnerships for the Goals:** Collaboration between academia, healthcare institutions, and technology companies is essential in advancing Object-Oriented Programming techniques and ensuring their effective implementation for global applications improvement.

## 10 Course Delivery Method:

This course uses face-to-face learning. Note that there are two types of learning that have been defined in the academic programs offered by the university. They are as follows:

- **Face-to-face learning:** The learning that takes place face-to-face on the campus of the higher education institution.
- **Complete remote E-learning:** The learning that takes place completely when the teacher and student are in two different places. This type of learning can be offered in both forms, synchronous and asynchronous, through the virtual E-learning platform. The complete remote E-learning is divided into two types, synchronous and asynchronous, as follows:
  - **Synchronous E-learning:** The learning that takes place through interactive virtual meetings between the teacher and students directly through the virtual E-learning platform.
  - **Asynchronous E-learning:** The learning that takes place through the activities, tasks, and educational duties and assignments performed by the students through the virtual E-learning platform without a direct meeting with the course instructor.



Based on the types of learning listed above, the bylaw and instructions for integrating E-learning in higher education institutions have divided the academic courses into three types:

- **Face-to-face (F2F) learning courses:** The courses that are taught through face-to-face learning.
- **Blended (BLD) learning courses:** The courses in which teaching consists of face-to-face learning and asynchronous E-learning. The institution is committed to implementing the electronic part through the virtual E-learning platform.
- **Complete remote E-learning courses (online):** These courses in which teaching consist of synchronous E-learning and asynchronous E-learning. The institution is committed to implementing the electronic part through the virtual E-learning platform.

## 11 Course Grading Scale

Grading System		
Grade	Quality Points	Description
90 - 100 % Excellent		Represents work of excellent quality. It is strong evidence of original thinking, good organization, capacity to analyze and synthesize, superior grasp of subject matter with sound critical evaluations and evidence of extensive knowledge base
80 - 89 % Very good		Represents work of good quality. It is evidence of grasp of subject matter, some evidence of critical capacity and analytic ability, reasonable understanding of relevant issues and evidence of familiarity with literature
70 - 79 % Good		
60 - 69 % Satisfactory		Represents satisfactory achievement. It is evidence of profiting from the university experience, understanding of the subject matter and ability to develop solutions to simple problems in the material.
50 – 60 % passing grade		Represents the minimum passing grade and poor performance. Represents some evidence of familiarity with the subject matter and that limited critical and analytic skills have been developed.
Less than 50		Represents unsatisfactory performance (failure); the course must be repeated satisfactorily to establish credit. Represents lack of evidence of understanding of subject matter, weakness in critical and analytic skills and limited or irrelevant use of literature.



## 12 Turnit-in, Plagscan or another software

*Plagscan and Turnitin serve as online tools enabling GJU faculty and students to review written assignments for incorrect referencing or unauthorized content usage.*

## 13 Use of textbook and other course material

*The student is required to utilize the textbook and other course materials, and it is their responsibility to do so. The use of the textbook is obligatory.*

## 14 IEEE Style

*GJU's academic departments adhere to the IEEE writing style across all academic programs. Students are expected to apply this style to their assignments. The following website is a valuable resource for students: <https://brand-experience.ieee.org/guidelines/digital/style-guide/>*

## 15 Lab Reports

*N/A.*

## 16 Attendance Policy

*Our way of teaching is focused on two things: helping students become skilled and respectful, and making sure they understand what's taught in class. If a student misses a lot of classes, they might not learn everything they need to do well in the course. So, if they miss too many classes, they might have to leave the course.*

*When students come to class regularly and pay attention, it shows they care about the course and want to learn.*

*A. Attendance is compulsory for all students on all registered courses whether theoretical or practical. The instructor of the relevant course is to record the students' attendance or absence in each.*

*B. A student is not permitted to be absent from more than 15% of the total number of credit hours assigned for each course (i.e. six lectures for a course that is being taught three times a week with a duration of one hour per lecture; four for a course that is being taught two times a week with a duration of one and a half hours per lecture, and two lectures for a course that is being taught once a week).*

*C. If a student is absent for more than 15% of the total number of credit hours assigned to any course, without submitting evidence that his absence was due to health or other compelling reasons acceptable by the Dean of the respective School, the course instructor is to deprive him from sitting for all subsequent exams including the final exam. In this case, his grade will be the grade accumulated for the course work during the semester, if it is more than (35%), or the lowest grade that can be assigned to the course which is the university zero (35%), unless he manages to withdraw from the course during the permissible withdrawal period. The Dean of the respective*



*School should duly inform the Director of the Admissions and Registration Department, so that the deprivation is registered before the beginning of the final exams.*

*D. If a student is absenting for more than 20% of the total number of credit hours assigned for any course but manages to submit evidence that his absence was due to health or other compelling unforeseen reasons acceptable by the Dean of the respective School, then he is to be considered withdrawn from the course. The Dean of the respective School should duly inform the Director of the Admission and Registration Department so that the withdrawal from the course is registered in the student's transcript. Students who represent the Kingdom or the University in official activities are to be allowed to exceed the absence limit by no more than 25% of the credit hours assigned for any course as long as the student provides an excuse within one week after the activity is over. Otherwise, the instructions stated in article (28) of these regulations, concerning the add and drop procedures, are to be applied.*

*E. All health excuses should be supported by a medical report, issued by the University's clinic doctor or certified by him. The report should be submitted to the Course Instructor before the absence, or as soon as the sick student recovers. In unforeseen circumstances, the excuse could be submitted as soon as these circumstances have ended.*

**Please check [article \(14\), page 396](#) in the following link showing the attendance policy of GJU:  
[Attendance Policy](#)**

## **17 Makeup of missing assessment**

GJU policy is applied for any missing assessment, project, or activity of any type and weight, the makeup (if approved) will be administered as per the policy.

Missing Assessments, assignments or activities may be scheduled on different days and times than the regular class meeting times, including on Saturdays.

A. A student who is absent from a semester exam should submit a valid excuse to the instructor of the course within three days from the date that the excuse has ended. If the excuse is accepted by the instructor, then is to proceed with the necessary arrangements for a make-up exam for the student.

B. A student who is absent from the final announced exam of a course will get to take an (I= (Incomplete) grade for that course. In this case, he should submit a valid or justifiable excuse to the Dean of the School to which the course is affiliated within a period that does not exceed 3 days from the date of the last final exam or the date of the end of the excuse. The concerned dean should study and examine all submitted excuses. He should inform the respective head of department, and the Director of the Department of Admissions and Registration department of the decision made, whether to accept or refuse the excuse, on the relevant form prepared by the Department of Admissions and Registration department within a period that does not exceed one week from for the date of the last final exam. The formed committee is entitled to look into all



other justifiable excuses. All unjustifiable cases or unaccepted excuses are to receive zero (0) in that exam.

C. In the event that if the excuse submitted by the student is acceptable, Chairman of then the head of the respective department should inform the course instructor accordingly with a view in order to arrange a make-up exam for the student during the following dates:

- The student must sit for the make-up exam during the first two weeks of the semester that comes after the semester in which the student missed the exam or during the second week of the summer semester.
- A student who has a final warning three days of the semester that comes after the semester in which the student received the incomplete grade.

D. The course instructor should conduct the make-up exam and fill in the form for grade completion, prepared by the Admissions and Registration department, in typing or clear handwriting to be approved by the dean of the respective school.

E. If the excuse which prevented the student from taking the exam is over, but the student does not manage to sit for the make-up exam, as mentioned in paragraph (C) of this article, then the student is to receive a (zero) in the final exam which he failed to take.

F. Taking into consideration the provisions of these regulations, the GPA is comprised of the average of all the grades for all the courses that the student studied and managed to either pass or fail until the time of calculation. If the student receives an incomplete grade in one or more courses, his GPA is to be calculated after receiving the results of the make-up exams of the relevant courses. In this case, the GPA is considered in a retroactive manner from the date the student obtained the incomplete grade if he is to be under probation or dismissed.

G. For the purpose of implementing the provisions of this article, a student who got an approval to postpone his studies, should sit for the make-up exams on the specified dates. Otherwise, he will receive a zero for that exam(s) he did not sit for.

For more details, please check [article \(20\), Page 399](#) that explains the makeup policy in the following link [Missing assessment](#).

## **18 Academic Honesty and Integrity Assurance**

*A good way to show you understand the course material is by being honest when you do your assignments. We won't allow any actions that go against academic honesty, like copying, cheating, or using unauthorized help. If you use someone else's ideas, sentences, or work, you need to say where you got it from. If you're not sure about this or how to put references in your work, you can ask the instructor. They're here to help you with that and make sure you're being honest.*

*If the teacher thinks that the work you submitted might not be yours, they can ask you to prove it. This might involve redoing the work, talking about it, doing something similar in class, or having a*



surprise quiz. If you can't prove it's your own work, the teacher will follow the rules for academic honesty mentioned on the GJU website here: [GJU Regulations](#).

Students are expected and encouraged to be honest and to maintain the highest standards of academic integrity in their academic work and assignments at the University. Engaging in Academic Dishonesty can lead to serious outcomes, ranging from receiving zero scores for assignments, failing the course, to even being suspended from the University. Students are expected to avoid any form of academic dishonesty or misconduct, which includes, but not limited to:

- *Plagiarism: Copying someone else's thoughts, words, or work and pretending it's your own. Even changing the words or summarizing without saying where you got it from is still copying if the original source is not properly cited.*
- *Cheating: Cheating means doing something dishonest to gain an unfair advantage. It involves lying, deception, trickery, imposture, or imposition. The person who is sending or receiving assistance is considered cheating.*
- *Helping someone cheat*
- *Taking a test for someone else*
- *Using someone else's test papers*
- *Submitting the same work for more than one course*
- *Submitting work that someone else wrote*
- *Getting or giving unapproved help on schoolwork*
- *Breaking the regulations of the degree program or the university*
- *Dishonest reporting of computational, statistical, experimental, and research results, or the like*
- *Using any kind of smart or electronic devices to cheat*

***For a detailed description of academic misconduct please refer to the GJU website in the following link: [GJU Regulations](#).***

## **19 Copyrights and Intellectual Integrity**

*Students and Instructors are required to follow copyright guidelines and principles of intellectual integrity.*

## **20 The need to study**

*Students studying at GJU should be thoroughly equipped to handle the challenging curriculum and its practical implementations. This implies that students must invest greater effort in meeting the course demands within a semester. Proficiency in time management is also crucial for GJU students.*





## 21 Teaching Methodology

*The students are encouraged to actively participate in classroom activities and collaborate within groups. Both the contributions made individually and those made within a team are assessed and acknowledged. Students are motivated to invest more effort in analyzing cases, aiming to enhance their critical thinking and communication abilities.*

*The course will utilize a variety of instructional techniques, potentially encompassing some or all of the subsequent approaches: Interactive lectures, collaborative group assignments, exploration of case studies through discussions, practical laboratory exercises, debates, task-oriented assignments, utilization of multimedia resources, engagement in both individual and group activities, educational field trips, expert guest speakers, and involvement in projects, problem-solving tasks, and research-based assignments. Additionally, there will be an emphasis on analyzing and reflecting upon scholarly literature. It's important to highlight that certain learning outcomes will be attained through the completion of assignments, projects, and active participation in various activities.*

*For online and blended courses, the German Jordanian University provides three virtual E-learning platforms to deliver the partial (blended) or complete remote E-learning content in its synchronous and asynchronous forms, as follows:*

- *MyGJU platform: MyGJU platform represents the main virtual E-learning platform at the university, and it is considered as the First Point of Contact (FPOC) to deliver the content of the course materials. MyGJU platform should be used in remote E-learning to deliver the non-interactive E-learning content, or to refer to the location of the rich and interactive E-learning content (as explained in the “Guidelines for E-Learning Data Archival” document). In addition, MyGJU should be used to manage and deliver the following information: course sections, course schedule, and course portfolio (which includes the course description, course objectives, learning outcomes of the course, references, topics of the course, assessment exams, presentations, files, and links for recorded lectures) in addition to attendance sheets, marks, assessments, e-mail, study plans, and registration.*
- *Moodle platform: This platform represents the University's Learning Management System (LMS) that should be used to deliver the course material that includes rich and interactive E-learning content (as explained in the “Guidelines for E-Learning Data Archival” document) in addition to conducting electronic tests. The interactive content can be developed using authoring tools such as iSpring.*
- *Microsoft Teams platform: This platform is available within the Microsoft 365 family of products. This platform should be used in synchronous E-learning to conduct synchronous electronic lectures in the presence of the teacher and students.*



## 22 The Project and team-based work

*The presence of the Project component within the course holds significant importance for successfully completing it. The project serves as evidence of the student's competence in comprehending and putting into practice the course objectives, ultimately leading to the attainment of the intended learning outcomes. The project should provide an opportunity for students to explore, apply, investigate, and gain practical experience in real-world business scenarios. It is anticipated that each student will be actively engaged and contribute fully as an effective team member during the project.*

*A comprehensive project document outlining project particulars will be provided later in the semester. In all tasks involving group collaboration, the collective responsibility for team outcomes and deliverables lies with the entire team. However, specific sections of the project may be evaluated individually based on project requirements, as communicated in the project document.*

## 23 Activities, in class assignments, cases, and participation

*The exercises, tasks, and cases form a significant educational instrument within this course. They serve as a platform for students to demonstrate their imaginative abilities and skills, enhancing the content and educational objectives of the course. Students should try to think in new and clever ways and think deeply when working on the deliverables of this learning assessment tool. It needs them to really care about what they're doing, think hard, and not be afraid of challenges to create unique and impressive results. The tasks given in class keep happening regularly and mostly focus on what was talked about in that day's lesson. These tasks can be done by themselves or with a group. It's good for students to take part actively, which includes answering questions, discussions, talking about problems, and even talking like a teacher when needed!*

## 24 Exams and Quizzes

***Quizzes** are ongoing, they are meant to assess learning, encourage continuous follow-up of the course material, and to show student's knowledge of specific topics and concepts. **Quizzes may be pop quizzes** or otherwise so students are expected to be prepared and ready as quizzes may also include material presented on the same day as the quiz.*

*Exams and tests are outlined in the course calendar. Exams are another important tool of assessments used at GJU to assess learning. There are specific procedures for exams which will be highlighted by the instructor prior to the exam.*

**Midterm and final exams may be scheduled on different days and times than the regular class meeting times, including on Saturdays.**

## 25 Surveys

**Any survey to be conducted by the student in relation to the course needs first to be approved by the course instructor.**





## 26 Specific Notes

N/A

## 27 Course Weekly Calendar

Date	Class Topic & Description	Learning method ** & Reference in the textbook	Matching Program Learning Outcomes  Taken from section 6	Main Topic  Taken from section 7	Assignment/ Task/Notes
WEEK ONE	<b>L1: Introduction &amp; Syllabus Review</b> <b>L2: Introduction to Web Technologies</b>	<i>F2F</i> <i>Ch1</i>	PLO 1.1, PLO 7.1 * *See Section 6	A *See Section 7	
WEEK TWO	<b>L1: HTML Basics</b> <b>L2: Enhancing HTML by Cascade Style Sheets</b>	<i>F2F</i> <i>Ch1</i>	PLO 1.1, PLO 2.2* *See Section 6	A *See Section 7	
WEEK THREE	<b>L1: Java Script programming (Part 1)</b> <b>L2: Java Script programming (Part 2)</b>	<i>F2F</i> <i>Ch2</i>	PLO 1.1, PLO 1.2, PLO 7.2* *See Section 6	B *See Section 7	<b>Ass.Deliv.1 (%5)</b>
WEEK FOUR	<b>L1: Problem Solving</b> <b>L2: PHP Programming (Part1)</b>	<i>F2F</i> <i>Ch3</i>	PLO 1.1, PLO 1.3* *See Section 6	C *See Section 7	
WEEK FIVE	<b>L1: PHP Programming (Part2)</b> <b>L2: PHP Programming (Part3)</b>	<i>F2F</i> <i>Ch4</i>	PLO 1.1, PLO 2.2* *See Section 6	D *See Section 7	
WEEK SIX	<b>L1: Advanced PHP Programming</b> <b>L2: PHP with MySQL Programming</b>	<i>F2F</i> <i>Ref. [3]</i>	PLO 6.1, PLO 6.2, PLO 7.2* *See Section 6	E *See Section 7	<b>Ass.Deliv.2 (%5)</b>
WEEK SEVEN	<b>L1: XML programming (Part1)</b> <b>L2: XML programming (Part2)</b>	<i>F2F</i> <i>Ref. [4]</i>	PLO 6.1, PLO 7.1, PLO 7.2* *See Section 6	F *See Section 7	
WEEK EIGHT	<b>L1: Advanced JSP (Part1)</b> <b>L2: Advanced JSP (Part2)</b>	<i>F2F</i> <i>Ref. [5]</i>	PLO 1.1, PLO1.2, PLO 1.3* *See Section 6	G *See Section 7	<b>Midterm Exam Period</b>



WEEK NINE	<b>L1: Problem Solving</b> <b>L2: Servlets Programming (Part1)</b>	<i>F2F</i> <i>Ref. [5]</i>	PLO 1.1, PLO 1.2, PLO 1.3 * *See Section 6	H *See Section 7	
WEEK TEN	<b>L1: Servlets Programming (Part2)</b> <b>L2: .Net Technologies (Part1)</b>	<i>F2F</i> <i>Ref. [6]</i> Lecture Notes	PLO 7.1, PLO 7.2 * *See Section 6	H *See Section 7	<b>Ass.Deliv.3 (%5)</b>
WEEK ELEVEN	<b>L1: .Net Application Development (Part1)</b> <b>L2: .Net Application Development (Part2)</b>	<i>F2F</i> <i>Ref. [6]</i>	PLO 3.1, PLO 3.2 * *See Section 6	I *See Section 7	
WEEK TWELVE	<b>L1: Problem Solving</b> <b>L2: Web Services Development (Part1)</b>	<i>F2F</i> Lecture Notes	PLO 3.1, PLO 3.2 * *See Section 6	I *See Section 7	
WEEK THIRTEEN	<b>L1: Web Services Development (Part2)</b> <b>L2: Web Sessions Development (Part1)</b>	<i>F2F</i> Lecture Notes	PLO 6.2, PLO 7.2 * *See Section 6	J *See Section 7	
WEEK FOURTEEN	<b>L1: Web Sessions Development (Part2)</b> <b>L2: Problem Solving</b>	<i>F2F</i> Lecture Notes	PLO 7.2, PLO 7.2 * *See Section 6	K, L *See Section 7	<b>Project Deliv. (%5)</b>
WEEK FIFTEEN	<b>L1: Project Demonstration and Presentations</b> <b>L2: Project Demonstration and Presentations</b>	<i>F2F</i>	PLO 7.2, PLO 7.2 * *See Section 6	M *See Section 7	<b>Project Presentation (%10)</b>  During class meetings of the week.
WEEK SIXTEEN	<i>Final Examination Week</i>				

**Note: The instructor has the right to amend the content of this syllabus with prior notice given to students. The most updated syllabus is on Moodle.**

**\*\*** (flipped, demonstration, lecture, problem-solving, collaborative, project based... etc)

**\*\*\*** (Inc. attending lectures, preparing for assignments, etc)

**\* PLOs-Courses Matrix is attached in appendix (1)**



### 28.1 Final Report Rubric:

Introduction (20%)	Available Solutions (10%)	Proposed Solution (30%)	Conclusion (10%)	References (5%)	Formatting and language used (25%)
<ul style="list-style-type: none"> <li>• Problem Definition (5%)</li> <li>• Criteria and Constraints (5%)</li> <li>• Objectives (5%)</li> <li>• Structure of the Report (5%)</li> </ul>	<ul style="list-style-type: none"> <li>• Brainstorming (5%)</li> <li>• Advantages and Inconvenient of each solution (5%)</li> </ul>	<ul style="list-style-type: none"> <li>• Background and Theory (5%)</li> <li>• Block Diagram/ flow chart (Using MS-Visio). (5%)</li> <li>• List of Components (5%)</li> <li>• Steps of building the circuit/Design/simulations/Codes with pictures (10%)</li> <li>• Discussion/ Simulation/ Code correctly follows the flowchart/ block diagram (5%)</li> </ul>	<ul style="list-style-type: none"> <li>• Summary of the work done. (5%)</li> <li>• Future work. (5%)</li> </ul>	<ul style="list-style-type: none"> <li>• Use IEEE or APA references</li> </ul>	<ul style="list-style-type: none"> <li>• Grammatical and sentence structural mistakes (15%)</li> <li>• Formatting: Cover page, group members' names, consistent fonts and size throughout the document (i.e. no copy-pasting from the net) (10%)</li> </ul>

### 28.2 Final results (prototype Rubric):

- **Design [70%]**
  - a. Does the prototype work or Not? (10%)
  - b. How does the prototype look? [nice/catchy/basic design] (5%)
  - c. Do the results meet initial expectation? Are the outputs satisfactory? (5%)
  - d. Are the material/components used to build the prototype adequate for such problems? (5%)
  - e. Is the proposed solution/idea the most optimized? (5%)
  - f. What is the impact of the material/components on the environment? (5%)
  - g. Explaining the engineering design process clearly based on the proposed design. (5%)
  - h. A detailed flowchart/block diagram describing the functionality of the system and the process to go from inputs to outputs (Using MS-Visio). (5%)
  - i. Connection diagram showing all wiring connections between the components and your inputs and outputs (if applicable). (Using fritzing software [www.fritzing.org](http://www.fritzing.org) or any other software) (5%)
  - j. Steps of building the circuit/code/schematic (with its code if applicable) (5%)
  - k. Using real illustrations extracted from prototype/ simulation (graphs, tables, trends, Pictures) and proper organization using IEEE style or APA style (5%)
  - l. Explaining exactly the same components and elements used in the design/circuit (5%)
  - m. Clear and convincing explanation on implementation of the design (5%)
- **Answering questions correctly [30%].**



- a. Able to answer the questions related to the prototype and provide data to support their answers. (Accurate & detailed explanation of answer) **(15%)**
- b. Show deep understanding on the prototype/simulations etc., its main functionality, the implementation, etc. **(15%)**

### 28.3 Presentation Rubric:

Knowledge and Content (15%)	Technical methods (10%)	Results (figures, graphs, etc.) (10%)	Contribution of work (15%)	Knowledge of subject (30%)	Presentation Skills (20%)
<ul style="list-style-type: none"> <li>Material sufficient for clear understanding and exceptionally presented</li> </ul>	<ul style="list-style-type: none"> <li>Sufficient for understanding and exceptionally presented</li> </ul>	<ul style="list-style-type: none"> <li>All figures clear with the same format and exceptionally explained</li> </ul>	<ul style="list-style-type: none"> <li>Significance exceptionally well explained</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrated full knowledge; answered all questions with elaboration</li> </ul>	<ul style="list-style-type: none"> <li>Excellent language skills, gestures, etc.</li> </ul>

### 28.4 Student Assessment Rubric

Deliverables	Bare pass mark (60%-69%)	C classification (70%-79%)	B classification (80%-87%)	A classification (>87%)
<b>Final report</b>  <b>Weighting 10%</b>	<ul style="list-style-type: none"> <li>The report is succinct and to the point. The maximum size of the report is met.</li> <li>The report includes only a brief analysis.</li> <li>Brief conclusion and discussion.</li> <li>The writing of the report includes some mistakes.</li> </ul>	<ul style="list-style-type: none"> <li>The report gives clear details of all components of application.</li> <li>The report includes some analysis.</li> <li>The conclusion/discussion on the application is partially relevant.</li> <li>The writing of the report does not include mistakes.</li> </ul>	<ul style="list-style-type: none"> <li>The report gives clear details of all components of application.</li> <li>The report includes detailed analysis.</li> <li>The conclusion/discussions on the application are relevant.</li> <li>The writing of the report does not include mistakes.</li> </ul>	<ul style="list-style-type: none"> <li>The report gives clear details of all components of application.</li> <li>The report includes detailed analysis.</li> <li>The conclusion/discussions on the application are relevant.</li> <li>The report is well structured, and it does not include mistakes.</li> </ul>

<p><b>Prototype and Oral presentation</b></p> <p><b>Weighting 10%</b></p>	<ul style="list-style-type: none"> <li>• The presentation covered <i>most</i> of the topics in the final report.</li> <li>• The team Spoke clearly and made only few mistakes.</li> <li>• Only a few questions are answered.</li> </ul>	<ul style="list-style-type: none"> <li>• The presentation covered <i>all</i> topics in the final report.</li> <li>• Information is presented in logical order.</li> <li>• Some questions are answered.</li> </ul>	<ul style="list-style-type: none"> <li>• The presentation covered <i>all</i> topics in the final report.</li> <li>• Information is presented in logical order.</li> <li>• All questions are answered.</li> </ul>	<ul style="list-style-type: none"> <li>• The presentation covered <i>all</i> topics in the final report.</li> <li>• Information is presented in logical order.</li> <li>• The analysis is clearly discussed, and the implemented method is</li> <li>• All questions are answered.</li> </ul>
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