YEDITEPE UNIVERSITY
FACULTY OF ENGINEERING

COURSE SYLLABUS
2024/2025-1

Course Code-Name	CSE 480 – Special Topics: Cloud Infrastructure

Course Schedule	Lec: Thursdays 09:00-12:00 (Room: B412 @ Eng. Faculty)

Instructor's Name: Phone: Email: Office Hours:	Emrah Mutlu +90 553 356 4445 emrah.mutlu[at]orioninc.com / emrah.mutlu[at]yeditepe.edu.tr

Website, Textbook & Supp. Materials	• Microsoft Learn online materials. • AWS Skill Builder online materials. • Cisco CCNA online materials.

Prerequisites	N/A

Course Outline				

Week	Date	Topics	Lab
1	03.10.2024	Introduction to Cloud, Cloud Service Models, Deployment Types, Services	Lab 1
2	10.10.2024	Cloud Database Services & Cloud Storage Services	Lab 2
3	17.10.2024	Cloud Compute Services	Lab 3
4	24.10.2024	Cloud Serverless Computing	Lab 4
5	31.10.2024	Network Services#1: Understanding the Traditional Network: Traditional Networks, Network Types, Network Elements, OSI Layers, Protocols & Ports, IPv4 addressing, Redundancy & High-Availability (HA) solutions.	NO LABS
6	07.11.2024	Network Services#2: Understanding the Cloud Network: Virtual Networks, NSG, Load Balancer, WAF, NVA, Redundancy & HA Solutions, Cloud Specific Network Solutions	Lab 5
7	14.11.2024	Cloud Management & Security	NO LABS
8	21.11.2024	MIDTERM EXAM	NO LABS
9	05.12.2024	Cloud Cost Planning & SLAs, Lifecycles	Lab 6
10	12.12.2024	Cloud Specific Additional Services: AI, IoT, DevOps, Server Farms) Architecting Session: Architecting a DevOps service on Cloud.	NO LABS
11	19.12.2024	Lab Session: Web Traffic Redistribution Architecting Session: Cloud migration PoC (Proof of Concept)	Lab 7
12	26.12.2024	Lab Session: Network Troubleshooting Architecting Session: Entire DC movement project	Lab 8
13	02.01.2025	Lab Session: Secure your Web Servers with NSG Architecting Session: CRM modernization project	Lab 9
14	09.01.2025	Lab Session: Load Balancer for N-Tier App Architecting Session: Multiplayer Game project on AWS	Lab 10

Midterm Dates	21.11.2024

Grading	You will be given homework assignments, a midterm and a final exam. Grade distribution is as follows: • Homework Assignments: 30% (70% of all homework MUST be submitted*, otherwise it will cost a letter grade from the final grade) • Midterm Exam: 30% • Final Exam: 40% * Submissions should contain valid and acceptable (your own work) information. If you are submitting something from Internet or from a known source (textbook, your friend's class notes, examples from lectures and labs, etc.) just to satisfy the submission threshold, your submission will not be counted. Besides, a disciplinary investigation can be conducted by the Faculty regarding your case.

Attendance	Attendance will be taken regularly. You **must attend to 80% of the lectures and labs (**If you miss 4 or more days of lectures out of 14 lecture days or 2 days of labs out of 10 lab days, you will fail the course due to lack of attendance.)

Additional Remarks	• You must also attempt all the **homework assignments and** all the **lab works** in addition to the midterm and the final exam to complete the course requirements. Otherwise, **you may fail regardless of your exam scores.** • Homework assignments must be submitted on time. **No late submission** is accepted.