HOLY SPIRIT UNIVERSITY OF KASLIK

Syllabus (Students)

2025-2026

I. Course Information

Academic unit	Faculty of Engineering
Department	Telecommunications and Computer Engineering
Code	GRT473
English Title	Network Architecture and Protocols Lab
French or Arabic Title *(when applicable)*	
Type	☐ C ☐ CTP ☒ TP ☐ P ☐ TD ☐ S ☐ TH
Pre-requisites	
Co-requisites	GRT431
Number of credits	1
Contact hours per week	2
Delivery Language:	☐ French ☒ English ☐ Arabic ☐ Other (specify):
Offered	☒ Fall ☒ Spring ☐ Summer
Current Semester	Fall 2025
CRN	
Class Schedule	W 9:00 – 10:40 (1st section) W 13:00 – 14:40 (2nd Section)

II. Course prerequisite knowledge and skills

General knowledge about networking

III. Instructor

Name and Title	Dr. Diala Abi Haidar
Category	☐ Full-time ☒ Part-time
Office	
Email / Teams	Diala.abihaidar@usek.edu.lb *Replies are to be expected within the following 2 working days*
Office hours	W 15:00-16:00

IV. Course Core Information

Course Description
The purpose of this lab is to apply the information given in the course using different approaches: configuration of network equipment and network installation, network supervising and troubleshooting using different tools, then performance evaluation. For that, we will mainly use network specialized simulators like CISCO Packet Tracer software used for packets capture and protocol analysis. In brief, we will see: some protocols from application layer (HTTP, DNS), TCP protocol, ARP protocol, Ethernet network, static and dynamic routing protocols.

Course Goals

1. Introduce the basic concepts in networking
2. Implement the different protocols and models of existing networks

Delivery Mode
One lab session per week, each for 2h, achieved in computers lab room. It includes brief introduction about the lab subject, then the students work on this subject using Packet Tracer Software. The exam is done using computers.

V. Course Learning Outcomes (LOs)

After a successful completion of the course, students will be able to:

1. Analyze protocols related to different layers
2. Evaluate the performance of network
3. Configure and implement CISCO routing protocols and switches. Network IP design
4. Troubleshoot a network

VI. Course General Requirements

Writing Requirements

All written assignments, reports, and documentation must be clear, concise, and well-organized. Proper grammar, spelling, and punctuation are expected.

Oral Requirements

During oral presentations, students are expected to demonstrate effective communication skills, including clear articulation, confident delivery, and engaging with the audience

Technical Requirements

Assignments involving coding should be implemented in specified software.

VII. Course Timetable and detailed schedule

Timetable

Week	Topic	LO(s)	Assessment Activities	Learning Activities
1	Introduction to local networks: cabling, equipments, basic network utilities, introduction to CISCO Packet Tracer simulator	**1**	Assignment, Lab work, Projects	Lab manuals
2	Introduction to Packet Tracer and the HTTP protocol	**1,2**	Assignment, Lab work, Projects	Lab manuals
3	Cisco Router Configuration	**1,2**	Assignment, Lab work	Lab manuals
4	CCNA Lab – LAN design	**1,2,3,4**		Lab manuals
5	IP configuration	**1,2,3,4**	Assignment, Lab work	Lectures and Exercises
6	Project 1 – HTTP and DNS	**1,2,3,4**	Assignment, Lab work, Projects	Lab manuals
7	Project 1 – HTTP and DNS	**1,2,3,4**	Assignment, Lab work, Projects	Lab manuals
8	LAN and WAN configuration	**1,2,3,4**	Assignment, Lab work, Projects	Lab manuals
9	Project 2 - DHCP and Subnetting	**1,2,3,4**	Assignment, Lab work, Projects	Lab manuals
10	Project 2 - DHCP and Subnetting	**1,2,3,4**	Assignment, Lab work, Projects	Lab manuals
11	Project 2 - DHCP and Subnetting	**1,2,3,4**	Assignment, Lab work, Projects	Lab manuals
12	Project 2 - DHCP and Subnetting	**1,2,3,4**	Assignment, Lab work, Projects	Lab manuals

13	Project 3- OSPF	**1,2,3,4**	Assignment, Lab work, Projects	Lab manuals
14	Project 3- OSPF	**1,2,3,4**	Assignment, Lab work, Projects	Lab manuals
15	**Final Exams**			

Schedule of Holidays, Make-up Sessions, Evaluations dates and Deadlines for Assignments.
USEK **Academic calendar** can be found at www.usek.edu.lb.

Week	Month	Date	Day	Specific Announcement
1	September	3	Monday	Start of Classes
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15	**Final Exams**			

VIII. Course Material

Required Texts	
Supplemental References	CCNA Exploration Labs and Study Guide Antoon W. Rufi, Priscilla Oppenheimer, Belle Woodward, Gerlinde Brady, Cisco Press
Required Materials	

IX. Course Grading System

Provide information about each assignment and assessment activity and specify their weight in the overall grade.

All course grades will be regularly shared with students, preferably on the e-learning platform.
The course final examinations date will be published by the Registrar Office in due time. No test or examination shall be given during the last two weeks before the regular examination period.

Passing grade

A minimum grade of …. is required for this course.
The Grading policy can be found in the **Academic Rules and Regulations** published on the website.

Grading criteria

Grading Criteria (Total = 100%)	
5-10%	Attendance and active participation
15%-20%	Homework, project, research paper, …
30%-35%	Quizzes, Tests, Midterm, …
40%-45%	End of semester evaluation *(The final exam shall have the highest percentage of the grade)*

X. Course Policies and Support to students

The USEK **Academic Rules and Regulations** is the official document of record concerning academic programs and regulations. It can be found at www.usek.edu.lb .

Class attendance policy

Students can, for valid and justified reasons, be absent for a number of teaching hours equal to three teaching weeks (20% of the course's number of hours, i.e., 9 hours = 6 sessions of an hour and 15 minutes each). However, they are responsible for learning material covered in class and will fail all graded class activities (quizzes, tests, presentations, discussions, etc.) organized during these absences.
Students who exceed the authorized limit of absences will not be allowed to sit for their final exam. They must officially withdraw from the course before the official deadline, otherwise, they will be given the grade FW (Fail to Withdraw).
Students with an excused absence will be permitted to make up coursework or complete an equivalent assignment agreed upon with the instructor.

Absence to Mid-term and final exam

A student who does not show up for the Mid-term and final exams, for any reason, is given, by the teacher, a failing grade of zero. If this absence is due to special justifiable circumstances, such as:

- Death of a family member or relative.
- Hospitalization, attested by a medical report from the hospital.
- Tested positive to COVID-19, attested by a PCR test with a QR code.
- Serious accident, attested by an official report from a sworn expert.

Then the student can present a petition with supporting documents at the Student Affairs Office within the 24 hours following the missed exam. The request will be accepted for a valid justification or in case of a recurrence.
A student who has shown up for the exam cannot, in any case, present a petition for a make-up exam.
The Mid-term and final exams policy can be found at www.usek.edu.lb .

Late Submission

Assignments are expected to be submitted by the designated deadlines. Late submissions may result in grade penalties unless prior arrangements have been made with the instructor.

Academic Integrity

Plagiarism and any form of academic dishonesty are strictly prohibited. All work submitted must be your own, unless otherwise specified.
Students are expected to practice the highest possible standards of academic integrity. Any deviation from this expectation will result in an academic penalty of the student failing the assignment and may result in additional disciplinary measures. This includes, but not limited to, improper citation of sources, using another student's work, and any other form of academic misrepresentation. Suspicions of use of artificial intelligence aids will be considered as alleged violations of Cheating.
The Academic Integrity policy can be found at www.usek.edu.lb .

Netiquette

Students are expected to communicate with each other and with the instructor in a learning community. They are expected to be respectful, polite, and knowledgeable during oral and written communication and when posting to the class discussion forums.

Course Evaluation Survey

Completion of the online course evaluation survey is required. Students will not be able to access their course grade until they have completed the course evaluation.

Arrangements for Students with Special Needs

USEK empowers students to manage challenges and limitations imposed by special needs. Students with disabilities are encouraged to contact the Access Office by sending an email to accessoffice@usek.edu.lb, for any accommodation needed to fulfill course requirements (within the first week of the semester).

Writing Center

The USEK Writing Center offers writing assistance to students. Its main mission is to develop their writing skills and provide free writing support for students of all levels and at any stage of the writing process by offering in-person consultations during which writers can brainstorm ideas, adopt different writing approaches and strategies, and receive feedback from a well-trained tutor. For assistance student are encouraged to contact the center by sending an email to writingcenter@usek.edu.lb.

Technical Support

The Enterprise and Information Technology Services (EITS) at USEK provides essential assistance to students for resolving technical issues and ensuring smooth access to digital resources. It offers guidance and troubleshooting for hardware and software problems, assists with network connectivity, and helps students navigate learning management systems and online platforms.

Latest Update on	Signature
30/8/2025	**Dr. Diala Abi Haidar**