# Practical Work: Routing & Switching

**Master: Networks and Telecommunications**

**Semester:1/Credits:2/Coefficient:1**

## Evaluation
(Continuous monitoring 100%)

- 35% Practical exams
- 20% Reports
- 20% Understanding the topic
- 15% Finishing the taskes on time
- 10% The behavior on class
- +10% Answering difficult questions and suggesting remarkable solutions

## Supporting / Helping

- Documents
  - Cisco 1900 Series Hardware Installation.pdf
  - Cisco 1941 Series Integrated Services Routers.pdf
  - اتصالات البيانات والشبكات.pdf
- Videos
  - Free CCNA 200-301 | Complete Course
  - Nabeel Al-Sahafi | نبيل الصحفي
  - Mohammed Albinahmed

## Educational goals

- Learning how to use PacketTracer
- Understanding Routers and Switches functionality
- Problem solving of simple networks
- Understand how to choose between different solutions

## Required

- Background information
  - Basic English language
  - Basic computer science skills
  - Familar with Networking keywords and acronyms
- Hardware
  - A Computer device
- Softwares
  - PacketTracer

## Time distribution

- First Semester: Sep-Jan
- N° of Sessions: 5-7 Labs
- One session per two weeks
- Three hours per session

## Labs

- Lab N°0: Introduction to PacketTracer
- Lab N°1: Initializing and Reloading a Router and Switch
- Lab N°2: Building a Network with Switch and Router
- Lab N°3: Static and Default routing configuration
- Lab N°4: RIP & OSPF (single Area) routing configuration
- Lab N°5: VLANs (Includes: Access ports, Trunk ports, and ROAS)

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Presented with xmind