



# Lab of Routing Architectures and Protocols(LPA)

Corso di Laurea Magistrale in Informatica e Networking

Davide Adami



# Course Overview

- The course provides the basic knowledge and the key concepts to understand the functional components required to design and implement **intra** and **inter-domain routing**
- Main theoretical and practical topics:
  - design and deployment of networks with IGP (RIP/OSPF) and **EGP (BGP) routing protocols**
- **Traditional lectures** are coupled with **laboratory experiments** which provides students with the possibility to work with **Juniper Networks routers**.
- Basic concepts concerning the **configuration, management and monitoring of Juniper Networks routers** are recalled
- At the end of the course, students may obtain Juniper Certification (**JNCIA-Junos** exam).
- **Required Skills**
  - Networking fundamental
  - Understanding of destination-based, hop-by-hop IP routing in a Classless Inter-Domain Routing (CIDR) environment

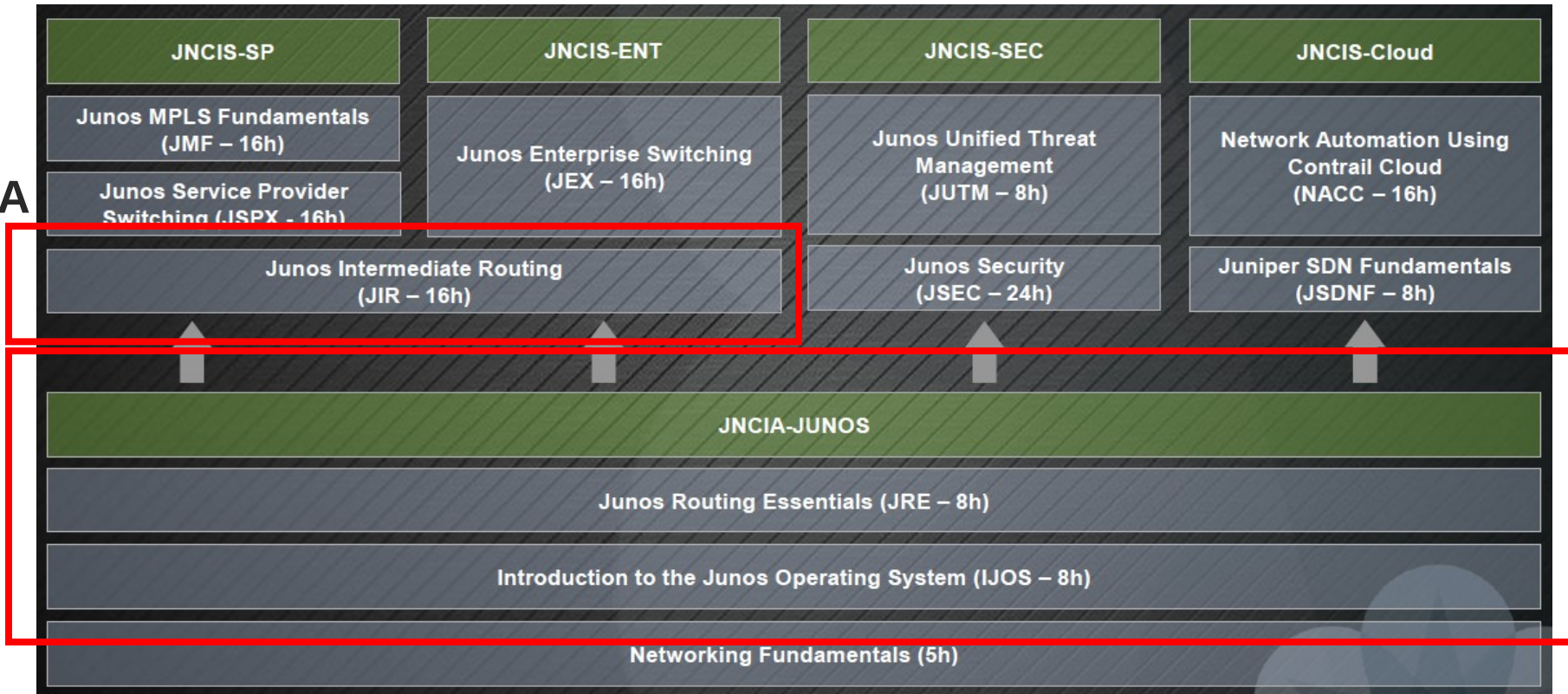




# JNAA Education – Course Modules

<http://joinjnaa.zohosites.com/>

LPA



Modules, hours and links to Juniper Certification Program.





# Juniper Networks Academic Alliance Lab at UNIP I



9 J4350 Router with Gigabit Ethernet Interfaces

9 SRX-240 Router with Gigabit Ethernet and Serial Interfaces

Layer 2 switches with 24 10/100/1000 Ethernet Interfaces

4 Fiber Optic Gigabit Ethernet Interfaces





# Courseware

## Reference material for theoretical lectures

- Introduction to the Junos Operating System (JNAA-IJOS-12.a)
- Junos Routing Essentials (JNAA-JRE-12.a)
- Junos Intermediate Routing ((JNAA-JIR-12.a)
- Slides

## Reference material for labs

- Operating Juniper Network Routers in the Enterprise (Detailed lab guide and lab diagrams)
- Advanced Juniper Network Routers in the Enterprise (Detailed lab guide and lab diagrams)



# Useful Links

- Timetable
  - <http://margot.di.unipi.it/test9/goa/2016/2/embed/bycdis/Informatica/WTW-LM>
  - Monday: 14-16 I-Lab, Thursday: 11-13 M-Lab
- Moodle PWD: LPA2017
  - <https://elearning.di.unipi.it/moodle/>
- Juniper
  - <http://www.juniper.net> (training)
  - **Manuals** Code: JNHA2
  - <http://www.onfulfillment.com/JuniperTraining/welcomestudent.aspx>
  - **Books** Code: JNHA2
  - <http://www.onfulfillment.com/JuniperTraining/welcomestudent.aspx>



# Contact Info

- For further information, please contact me:

**Ing. Davide Adami**

Dept. of Information Engineering  
Via Caruso, 16 –PISA

Email: [d.adami@iet.unipi.it](mailto:d.adami@iet.unipi.it), [davide.adami@cnit.it](mailto:davide.adami@cnit.it)  
Phone +39 050 2217652