

### Software Defined Communication Infrastructure



#### Hourly volume

# Introducing

#### Objectives

At the end of this module, the student will have understood and be able to explain (main concepts):

- the concepts related to the virtualization of network functions (in the NFV sense)

- the concepts related to network programming (in the SDN sense)

- the model of autonomic computing defined (among others) by IBM

- the views of real-world actors involved in a-largescale project (application developer,-middleware operator, network operator)

The student will be able to:

- use an SDN network emulator (ContainterNET)
- use an SDN (Ryu) controller

- use a standardized MANO NFV (SON-EMU)

- develop a standardized VNF

- architect and implement solutions that take advantage of the concepts of virtualization of network functions and programmable networks, in the context of the realization of an SDCI

- apply and implement the model of autonomic computing to a problem of management of QoS in an  $\ensuremath{\mathsf{SDCI}}$ 

Networks Interconnexion - TCP/IP

Object oriented design UML (2.0)

Object Oriented Programming - Java

Service-Oriented Architectures

Network Programming - TCP/IP

## Practical info

#### Location(s)

오 Toulouse

#### Necessary prerequisites

