



# Satuan Acara Pengajaran

ENCN802003 - Simulasi Jaringan Berbasis Komputer

Pengajar

*Prof. Dr. Ir. Riri Fitri Sari M.M., M.Sc.*

## Minggu 1

---

<b>Materi</b>	Introduction
<b>Media</b>	OHP
<b>Referensi</b>	Computer Networking, A Top-Down Approach Featuring the Internet, J. F. Kurose and K. W. Ross, Addison Wesley, 2003
<b>Aktivitas</b>	Kuliah dan diskusi

---

## Minggu 2

---

<b>Materi</b>	Linux Installation
<b>Media</b>	LCD
<b>Referensi</b>	Linux Distribution
<b>Aktivitas</b>	Praktek Instalasai

---

## Minggu 3

---

<b>Materi</b>	NS Installation
<b>Media</b>	LCD
<b>Referensi</b>	<a href="http://www.isi.edu/nsnam">www.isi.edu/nsnam</a>

---

**Aktivitas** Install NS

---

## Minggu 4

---

**Materi** Network Simulation Fundamentals

---

**Media** LCD

---

**Referensi** Handout 1 (gaia)  
Brakmo & Peterson paper

---

**Aktivitas** Kuliah dan Diskusi

---

## Minggu 5

---

**Materi** The Basic of NS (1):  
OTCL, Simple Simulation example (topology, events, marking flows,  
monitoring a queue).  
Architecture (nodes, links, applications, protocols, packets, loss modules, math  
support)

---

**Media** LCD

---

**Referensi** Ns by example

---

**Aktivitas** Kuliah dan praktek

---

## Minggu 6

---

**Materi** The Basic of NS (2):  
Event Scheduler, Network Components, Packet

---

**Media**

---

**Referensi** Ns by example

---

**Aktivitas**

---

## Minggu 7

---

**Materi** Project Presentation

---

**Media**

---

**Referensi**

---

**Aktivitas**

---

Minggu 8

---

**Materi** Mid-test

---

**Media**

---

**Referensi**

---

**Aktivitas**

---

Minggu 9

---

**Materi** Post Simulation:  
Analysing ns trace file, Queue Monitor (examples)

---

**Media**

---

**Referensi** Raj Jain

---

**Aktivitas**

---

Minggu 10

---

**Materi** Best Practice in Network Performance Evaluation Techniques

---

**Media**

---

**Referensi** Varadhan

---

**Aktivitas**

---

Minggu 11

---

**Materi** Ns topology generation, OTCL and C++, routing (unicast, multicast, network dynamics), multicast transport

---

**Media**

---

**Referensi** J. Widmer

---

**Aktivitas**

---

## Minggu 12

---

**Materi** NAM network animator, further features (abstraction, multicast, RTP/RTCP, SRM, QoS, Scenario generation, test suites)

---

**Media**

---

**Referensi** Ns by example

---

**Aktivitas**

---

## Minggu 13

---

**Materi** Extending ns:  
Ns structure, OTCL linkage, Add new application and agent, add new queue

---

**Media**

---

**Referensi**

---

**Aktivitas**

---

## Minggu 14

---

**Materi** A New Protocol for ns:  
Header file, C++ code, necessary changes, the TCL code

---

**Media**

---

**Referensi**

---

**Aktivitas**

---

## Minggu 15

---

**Materi** Final Test and Paper presentation

---

**Media**

---

**Referensi**

---

**Aktivitas**

---

Minggu 16

---

**Materi**      Final Test

---

**Media**

---

**Referensi**

---

**Aktivitas**

---