

Unix System Administration

1. **Course number and name:** 020ADUES3 Unix System Administration
2. **Credits and contact hours:** 4 ECTS credits, 2x1:15 contact hours
3. **Instructor's or course coordinator's name:** Gérard Chalhoub
4. **Text book:**
 - a. **Other supplemental materials:**
Course handouts and exercises.
5. **Specific course information**
 - a. **Catalog description:**
Shell and commands – File system – Processes – CPU – Users – Backups – Periodic tasks – Network configuration – DNS – DHCP – Configuration of application services: e-mail, directory - Security: Sudo, ACL, ssh, Iptables, logs
 - b. **Prerequisites or co-requisites:**
 - c. **Required:** Elective for CCE students
6. **Specific goals for the course**
 - a. **Specific outcomes of instruction:**
 - Understand how UNIX-based systems operate
 - Use and manage a Linux operation system
 - Produce and debug scripts: text processing with AWK
 - Manage network services such as DNS, LDAP and SMTP
 - Secure a system and a network using ACL rules with Iptables
 - b. **KPI addressed by the course:**

KPI	a1	b3	e2	e3	h1	j1	k2	k3
Covered	x	x	x	x	x	x	x	x
Assessed	x	x	x	x		x	x	x
Give Feedback								

7. **Topics and approximate lecture hours:**

Session	Topic
1	Introduction to UNIX and Linux
2	Use of basic commands
3	File system: manipulation and search operations
4	Permissions

5, 6	Exercises on file system
7, 8	Processes
9, 10	Exercises on processes
11, 12	AWK scripting
13, 14	Exercises on AWK
15, 16	Domain Name System
17, 18, 19	Exercises on DNS
20, 21	Directories: LDAP
22, 23, 24	Exercises on LDAP
25, 26	Linux firewall: iptables
27, 28	Exercises on iptables