**Content**

| Course Code | Course Name | Semester | Theory | Practice | Lab | Credit | ECTS |
|---|---|---|---|---|---|---|---|
| INF470 | Network Laboratory | 7 | 2 | 0 | 2 | 3 | 3 |

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| Prerequisites | |
| Admission Requirements | |

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| Language of Instruction | French |
| Course Type | Compulsory |
| Course Level | Bachelor Degree |
| Objective | To use and to practice the network knowledge obtained in the INF423 (7.semestre) |
| Content | Week 1. Introduction to Wireshark<br>Week 2. Ethernet & ARP<br>Week 3. IP<br>Week 4. ICMP<br>Week 5. TCP<br>Week 6. DNS<br>Week 7. DHCP<br>Week 8. Socket programming<br>Week 9. HTTP and applications<br>Week 10. Package transmission and congestion control<br>Week 11. Network Security: Security Levels<br>Week 12. Network Security: Security Levels<br>Week 13. Simulation<br>Week 14. Simulation |
| References | 1. James F. Kurose and Keith W. Ross, "Computer Networking: A Top-Down Approach Featuring The Internet", 2003, Addison Wesley, Pearson Education.<br>2. Russell Bradford, "The Art of Computer Networking", 2007, Prentice Hall, Pearson Education.<br>3. Andrew Tannenbaum, "Computer Networks," 1996, Prentice Hall, Inc.<br>4. D. Bertsekas and R. Gallager, "Data Networks," 2nd Ed., 1992, Prentice Hall, Inc.<br>5. T.S. Rappoport, "Wireless Communications," 1996, Prentice Hall, Inc. |

**Theory Topics**

| Week | Weekly Contents |
|---|---|
| 1 | Introduction to Wireshark |
| 2 | Ethernet & ARP |
| 3 | IP |
| 4 | ICMP |
| 5 | TCP |
| 6 | DNS |
| 7 | DHCP |
| 8 | Socket programming |
| 9 | HTTP and applications |
| 10 | Package transmission and congestion control |

| Week | Weekly Contents |
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| 11 | Network Security: Security Levels |
| 12 | Network Security: Security Levels |
| 13 | Simulation |
| 14 | Simulation |

| Week | Weekly Contents |
| --- | --- |
| 11 | Network Security: Security Levels |
| 12 | Network Security: Security Levels |
| 13 | Simulation |
| 14 | Simulation |