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|  | **Course Name** | **Teaching Scheme (Hrs)** | | | **Credits Assigned** | | | |
|  |  | Theory | Practical | Tutorial | Theory | Practical | Tutorial | Total |
| **UCEA502** | **Open Source Tools Laboratory** | **--** | **--** | **02** | **--** | **--** | **-** | **-** |

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| **Course Outcome** | **After successful completion of the course students should be able to** |
| **CO1** | Understand the fundamentals of Open Source environment |
| **CO2** | Configure & install open source Operating systems |
| **CO3** | Execute different scripting commands |
| **CO4** | Manage the configurations of network administrative tools |
| **CO5** | Identify & using content management tools. |
| **CO6** | Analyze security in virtual environment. |

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| **Sr. No.** | **Title of the Experiment** | **No. of Hours** |
| 1. | Study & execution of basic open source commands. | 02 |
| 2. | Introduction & installation of Linux OS in Dual boot Environment. | 02 |
| 3. | Configuring open source system administration. | 02 |
| 4. | Introduction to shell programming. | 02 |
| 5. | To configure, compile & install latest kernel source code. | 02 |
| 6. | Network Administration - LAN Card configuration, DHCP, DNS, FTP, Telnet, SSH, NFS, Web Server, SQUID Proxy configuration. | 02 |
| 7. | Write & execute user space packages using FUSE | 02 |
| 8. | Content Management using DRUPAL | 02 |
| 9. | Vulnerability management using OpenVAS. | 02 |
| 10. | Setting virtualization environment using open source tools on cloud interface. | 02 |
|  | **TOTAL** | **20** |

**Recommended Books:**

1. Linux Shell scripting Cookbook: Sarath Lakshman PACKT 3.
2. Linux Lab - Open source Technology : Ambavade –Dreamtech.
3. Drupal guide to Planning and Building Web Site: Wrox Press