TCET
DEPARTMENT OF INFORMATION TECHNOLOGY (IT)
Credit Based Grading Scheme(Revised - 2012) - University of Mumbai
CBGS-2012(R)

TCET/FRM/IP-02/09	Revision: A

Semester Plan
(Theory)

Semester: V	Course: IT

Subject: Open Source Software Technology	3 Lectures / Week	Class: TE IT B

Sr. No.	Prerequisite/ Bridge course:			Duration (Week /Hrs)	Modes of Learning	Recommended Sources	
1	Working of windows OS in work group and domain envirnment, Basics of programming logic for shell script			6	Self Learning/ Revision	**Text Book:**1. Introducing Windows Server 2008 R2 Microsoft Press 2.Windows Internal , 6th Edition Mark Russinovich David A. Solomon ,Alex Ionescu , Microsoft Press **Course Link:** 1.http://nptel.ac.in/courses/106106093/ 2.http://nptel.ac.in/courses/106104135/	

Sr. No.	Module No.	Lesson No.	Topics Planned (Technology to be used)	Teaching Aids Required	Planned /Completion Date	Resource Book Reference	Remarks
1	Module 1 - 6	L1.1	SOP- Practical	Power point presentation, Chalk & Board	7/10/2017	--	
2		L1.2	SOP-Theory	Power point presentation, Chalk & Board	7/11/2017	--	
3		L1.3	SOP-OBE	Power point presentation, Chalk & Board	7/12/2017	--	
4	Module 1	L1.4	Over View of Software: Advantages of Open sources – Applications- FOSS – FOSS usage	Chalk & Board	7/13/2017	1.7.1	
5		L1.5	Free Software Movement – Commercial Aspect of Open Source Open Source Movement Licensing	Chalk & Board	7/14/2017	1.7.2	
6		L2.1	– Free Software –Open source vs source –available –Widely used open source software license Apache License BSD	Power point presentation, Chalk & Board	7/17/2017	1.7.3	
7		L2.2	GNU General Public License, GNU Lesser General Public	Power point presentation, Chalk & Board	7/18/2017	1.7.4	
8		L2.3	License, MIT License, Eclipse Public License and Mozilla Public License.	Power point presentation, Chalk & Board	7/20/2017	1.7.5	
9	Module 2	L3.1	Installation of Linux (Redhat-CentOS): Theory about Multiboot Environment,	Power point presentation, Chalk & Board	7/24/2017	2.7.1	
10		L3.2	Hardisk Partitioning, Swap space, LVM, and Bootloader	Power point presentation, Chalk & Board	7/26/2017	2.7.2	
11		L3.3	Command Line: Basic File System Manamgnet Task,	Power point presentation, Chalk & Board	7/27/2017	2.7.3	

12		L4.1	Working with files, Piping and Redirection	Power point presentation, Chalk & Board	7/31/2017	2.7.4	
13		L4.2	Working with VI editor, use of sed and understanding FHS of Linux	Power point presentation, Chalk & Board	7/2/2017	2.7.5	
14	Module 3	L4.3	Administrator task: Job management, Process Management	Power point presentation, Chalk & Board	7/3/2017	3.7.1	
15		L5.1	Mounting Devices and file system working with Linux, Backup,	Power point presentation, Chalk & Board	8/7/2017	3.7.2	
16		L5.2	working with user, group and permission, Managing Software.	Power point presentation, Chalk & Board	8/9/2017	3.7.3	
17		L5.3	Understanding Boot process and related system files, Common ,kernel Manamgnet Task	Power point presentation, Chalk & Board	8/10/2017	3.7.4	
18	Module 4	L6.1	Network and Security Administration: Basic networking commands, Configuration of Apache Web servers,	Power point presentation, Chalk & Board	8/14/2017	4.7.1	
19		L6.2	DNS servers, DHCP servers, mail	Power point presentation, Chalk & Board	8/16/2017	4.7.2	
20		L6.3	Servers, NFS, FTP servers.	Power point presentation, Chalk & Board	8/19/2017	4.7.3	
21		L7.1	Securing servers with Iptables	Power point presentation, Chalk & Board	8/24/2017	4.7.4	
22		L8.1	Setting up cryptographic services,	Power point presentation, Chalk & Board	8/30/2017	4.7.5	
23		L8.2	, SSL, Managing Certificate with OpenSSL	Power point presentation, Chalk & Board	8/31/2017	4.7.6	
24		L9.1	working with the GNU Privacy guard.	Power point presentation, Chalk & Board	9/4/2017	4.7.7	
25	Module 5	L9.2	Shell Programming: Bash Shell Scripting, Executing Script, Working with Variables and Input,	Power point presentation, Chalk & Board	9/6/2017	5.7.1	
26		L9.3	Using Control Strutures, Script control, handling with signals, Creating functions	Power point presentation, Chalk & Board	9/7/2017	5.7.2	
27		10.1	working sed and gawk	Power point presentation, Chalk & Board	9/11/2017	5.7.3	
28		L10.2	Working with web using shell script:	Power point presentation, Chalk & Board	9/13/2017	5.7.4	

29		L10.3	Downloading web page as formatted text file and parsing for data, working cURL etc.	Power point presentation, Chalk & Board	9/14/2017	5.7.5	
30		L11.1	Mobile Programming: Android programming: Setting up Android Environment (using Eclipse for 10 android development),	Power point presentation, Chalk & Board	9/18/2017	6.7.1	
31		L11.2	Activities and Intents, User Interface	Power point presentation, Chalk & Board	9/20/2017	6.7.2	
32		L11.3	Designing UI using views,	Power point presentation, Chalk & Board	9/21/2017	6.7.3	
33		L12.1	Data Persistence, networking,	Power point presentation, Chalk & Board	9/25/2017	6.7.4	
34	Module 6	L13.1	Content Providers, messaging and	Power point presentation, Chalk & Board	10/4/2017	6.7.5	
35		L13.2	Location-based Services	Power point presentation, Chalk & Board	10/5/2017	6.7.6	
36		L13.3	Publishing Android Applications	Power point presentation, Chalk & Board	10/7/2017	6.7.8	
37		L14.1	Publishing Android Applications	Power point presentation, Chalk & Board	10/12/2017	6.7.8	
38		L15.1	Revision & Doubt Solving	Power point presentation, Chalk & Board	10/16/2017		

Remark:	Syllabus Coverage:	Practice Session: 1	Beyond Syllabus: 01
Course:			

No. of (lectures planned)/(lecture taken): 38

			Web sources: https://www.cs.utexas.edu/users/witchel/378/schedule.html https://devops.com/webinars/
Advanced course: Mobile Programming IOS , Cloud Computing & DevOps technology using Linux	**12 Hours**	**Online NPTEL videos with Hands on Training in Laboratory**	

Text Books:

1.1. Redhat Linux 6.0 Administration Wiley

1.2. Linux Shell scripting Cookbook: Sarath Lakshman PACKT

1.3. Linux Lab - Open source Technology : Ambavade -Dreamtech

1.4. Beginning Adnorid Development Wrox Press

References:
1. Drupal guide to Planning and Building Web Site: Wrox Press
2. Unix Concepts and Application 4th Edition by Sumitabha Das , Tata Mc Graw Hill

Digital Reference:

3.1. http://nptel.ac.in/courses/117106113/1

3.2.http://nptel.ac.in/courses/117106113/2

3.3. http://nptel.ac.in/courses/117106113/5

        SD/   **SD/**   **SD/**

Name & Signature of Faculty   **Signature of HOD**   **Signature of Principal /Dean (Academics)**

        Date: **Date:**   **Date:**

Note:

1. Plan date and completion date should be in compliance

2. Courses are required to be taught with emphasis on resource book, course file, text books, reference books, digital references etc.

3. Planning is to be done for 15 weeks where 1st week will be AOP, 2nd -13th for effective teaching and 14th -15th week for effective university examination oriented

4. According to university syllabus where lecture of 4 hrs/per week is mentioned minimum 55 hrs and in case of 3 lectures per week minimum 45 lectures are to be engaged

5. In order to improve score in NBA, faculty members are also required to focus course teaching beyond university prescribed syllabus and measuring the outcomes w.r.t

6. Text books and reference books are available in syllabus. Here only additional references w.r.t. non –digital/ digital sources can be written (if applicable)

7. Technology to be used in class room during lecture shall be written below the topic planned within the bracket.