

Course:Major
Computer Science Practical-Advanced Operating System

Semester II	Credits:2	Subject Code: SMAJCCSP223554	Lectures: 60
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Course Outcome:

At the end of this course, the learner will be able to:

- CO1- Learn Advanced Operating Systems Concepts using Unix/Linux and Windows as representative examples.
- CO2- Use File and Directory I/O using operating system concepts.
- CO3-Apply the concepts underlying in the design and implementation of Operating Systems.
- CO4 -Demonstrate the concept of Virtualization in operating systems.

Unit 1:I/O and Process/Memory Management

30

- Linux commands Basics 1
- Linux commands Basics 2
- File and Directory 1
- File and Directory 2
- Memory Management
- Signal Handling

Unit 2:Signal Handling and Introduction to Virtualization

30

- Process Management 1
- Process Management 2
- Process Management 3
- Virtualization – For Demonstration
- Zoning – For Demonstration
- Containerization – For Demonstration

References books

- A Robbins, *Linux Programming by Example: The Fundamentals*”, 2nd Edition, 2008, ISBN 9788131704196, Pearson Education.
- Mark E. Russinovich and David A. Solomon, *Windows Internals*, Microsoft Press.
- Maurice J. Bach, *The Design of the UNIX Operating System*, PHI.
- Richard Steves, *Advanced Programming in the UNIX Environment*, Addison-Wesley.
- Robert Love, *Linux System Programming*, O'Reilly.

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Subject Expert (Outside SPPU)	Dr. Manisha Divate		<i>Manisha</i> 15/7/23
VC Nominee (SPPU)	Dr. Reena Bharathi	<i>Reena</i> 15/7/23	
Industry Expert	Ms. Anjali Ingole		<i>Anjali</i> 15/7/23
Alumni	Ms. Pooja Pandey	<i>Pooja</i> 15-7-23	



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