



# Introduction to Operating Systems

SWAYAM Prabha Course Code: R9

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<b>INSTITUTE</b>	IIT Madras
<b>COURSE OUTLINE</b>	<p>Operating systems (OS) provide the crucial interface between a computer's hardware and the applications that run on it. It allows us to write programs without bothering much about the hardware. It also ensures that the computer's resources such as its CPU, hard disk, and memory, are appropriately utilized. In this course, we dwell into how the OS manages to do all this in an efficient manner. This is an introductory course, for students with prior knowledge of computer organization. The course is based on an OS called xv6, which in many ways is similar to the Linux operating systems.</p> <p><b>Course Outline</b></p> <ol style="list-style-type: none"><li>1. Introduction</li><li>2. Memory Management</li><li>3. Processes</li><li>4. Interrupts and Context Switching</li><li>5. Scheduling</li><li>6. Synchronization</li><li>7. Deadlocks</li><li>8. Operating System Security</li></ol>