Multicore OS Considerations

- The design challenge for a many-core multicore system is to efficiently harness the multicore processing power and intelligently manage the substantial on-chip resources efficiently
- Potential for parallelism exists at three levels:

hardware parallelism within each core processor, known as instruction level parallelism

potential for multiprogramming and multithreaded execution within each processor

potential for a single application to execute in concurrent processes or threads across multiple cores