

# COSC 4740 Operating System Design

Written Q7

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Why is it important for the scheduler to distinguish I/O-bound programs from CPU-bound programs?

It is important for the scheduler to distinguish I/O-bound programs from CPU-bound programs because I/O-bound will spend most of their time waiting for I/O operations and thus only use the cpu for short bursts. Meanwhile, CPU-bound programs will require longer time on the CPU. By distinguishing between them, the scheduler can better optimize allocation of resources and improve efficiency.