Operating Systems (02340123) Summary

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June 3, 2025

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Part I
Lectures & Tutorials

1   Processes and Signals

A process is a schedulable entity executed by the OS. It has its own virtual memory space, stack, and heap. Key system calls include `fork()`[1] , `execv()`, and `wait()`.

Reference: `fork()` (defined in the Functions file).

Sometimes, function details are important inline[2]:

Function: `pid_t fork(void);`
Usage: Creates a new process by duplicating the current one.
Return: 0 for child, child's PID for parent, -1 on failure.

2   Virtual Memory

... (and so on for each lecture/topic)

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[1]For more details, see Functions Reference.
[2]Signals are asynchronous notifications sent to processes, handled in user mode.

Part II
Overall Summary

Summarize core OS concepts: virtual memory, scheduling, synchronization, I/O, etc.

Part III
Highlights and Notes

- Processes are isolated, but related via parent-child hierarchy.

- `exec()` does not create a new process.

- Signals are async notifications - handled in user mode.