

# CSc 720: Advanced Operating System

<b>Course number</b>	CSc 720
<b>Course title</b>	Advanced Operating Systems
<b>Number of credits</b>	3
<b>Schedule</b>	Three hours of lecture/discussions per week
<b>Prerequisites</b>	Grade B or better in CSc 415
<b>Text</b>	No textbook. All material is available at <a href="http://tos.sfsu.edu">http://tos.sfsu.edu</a> .
<b>Syllabus</b>	Objectives:

- Apply knowledge of Operating Systems to implement a simple x86-based OS.
- Provide in-depth knowledge of the IBM PC architecture and the Intel x86 CPU.
- Explain system-level programming techniques.

## Course Overview:

- Implementation techniques for Process Control Block (PCB),. Inter Process Communication (IPC), Interrupt handling via Interrupt Service Routines (ISR), handling of concurrency and race conditions, device driver for RS232. At the end of the semester students have to implement a shell and a complex train-controlling application.

<b>Grading</b>	Quizzes:	60%
	Programming Project:	40%