

# Introduction to Processes

CS 537 - Introduction to Operating Systems

# Definition

- A process is a program in execution
- It is not the program itself
  - a program is just text
- Only one process can run on a processor at once

# Process Description

- A process is completely defined by
  - the CPU registers
    - program counter, stack pointer, control, general purpose, etc.
  - memory regions
    - user and kernel stacks
    - code
    - heap
- To start and stop a program, all of the above must be saved or restored
  - CPU registers must be explicitly saved/restored
  - memory regions are implicitly saved/restored