

## CS150 - Computer Organization and Architecture

### Homework #7 - Spring 2023

Build a subroutine in CS150 AVR assembly language named `OrderBytes`. This subroutine will compare two *unsigned* arguments on the stack and re-arrange the stack (if necessary) so that the larger of the two values will be the first argument popped off the stack by the caller. You may only use instructions that are contained within the CS150 AVR instruction subset. An example of how your subroutine will be used is shown below.

```
...
; Let's arrange the top two values on the stack so that
; we can later send them to the DAC in *descending* order
call OrderBytes
pop r0 ; get the greater of the two arguments
pop r1 ; get the lesser of the two arguments
...
```