An important aspect of embedded system design is being able to communicate effectively using the technical vocabulary associated with embedded systems. You should be able to define and communicate using the following terms before the end of the semester.

**Embedded System, Microprocessor, Microcontroller**

**RAM, SRAM, DRAM, NVRAM, DDR, DMA**

**ROM, EPROM, EEPROM, Flash Memory, OTP**

Oscillator, Crystal, Start-up Time, Clock Oscillator

Clock, Race Condition, Glitch, Jitter, Eye Diagram

Reset, Power-on, Manual, Brown-out

Noise, Ground Bounce, Noise Margin, Bus, Crosstalk

Transmission Line, Ringing, Reflections, Termination

EMI, EMC, Ground/Power Plane, Signal Integrity

CMOS, TTL, Logic Families, Switching Threshold

Totem-Pole Output, Open Collector/Open Drain Output

Fan-out, Fan-in, Pull-up/Pull-down Resistor, Floating

Contention, Drive Fight, Wire-OR/Wire-AND

Bypass/Decoupling Capacitor, ESR

In-rush Current, Voltage Droop

Transistor, MOSFET, BJT, Beta

Diode, Switching, Power, Zener, LED

Clamping Diode, Protection Diode

Interrupt, NMI, Maskable, Edge/Level Triggered

Voltage Regulator, Thermal Grease, Heat Sink

Multiplexer, Multiplexed Address/Data

Buffer, Latch, Flip-Flop, State Machine

IC, ASIC, LSI, VLSI, Integration

Propagation Delay, Setup/Hold Time

Glue Logic, Chip Selects, PLD, FPGA, PAL/GAL

Address Decoding, Complete, Incomplete

Address Space, Memory Map, Aliasing, Ghosting

EPROM Emulator, Device Programmer

In-Circuit Emulator (ICE), Breakpoints, Traces

Debugger, JTAG, Scan Chain, Boundary Scan

Logic Analyzer, Pod, Disassembler, Trigger

ESD, Antistatic, Conductive, 'Walking Wounded'

Serial/Parallel Communication, SERDES

Asynchronous/Synchronous

RS-232, RS-422, RS-423, RS-485, SPI, I2C, USB

Op-Amp, Gain-Bandwidth Product, Slew Rate

Frequency Response, Unity Gain Buffer

Reconfigurable Logic, SoC, Platform FPGA

Cache, Pipeline, Embedded Core

Peripheral (PIC, PIT, LCD, etc.)

ADC, DAC, Resolution, Monotonic

Successive Approximation, Flash Conversion

Schematic, Wiring Diagram, Block Diagram, Layout

Wire-wrapping, Soldering, Cold Solder Joint

PCB, PCA, PWB, PWA, Via

Supervisory Circuit

Watchdog Timer, Low Voltage Detector

Transient Failures, Memory Hits, Signature Byte

Error Handling, ECC, EDC

RoHS, Pb Free