**ELEC 464 : Microcomputer System Design**
Fall 1995

**Pre-Course Quiz**

*This questionaire/quiz is designed to give me (the instructor) an idea of your background and interests. You don't have to give your name and (obviously) your answers will not affect your mark.*

1. What digital logic or microprocessor hardware courses have you already taken (e.g. ELEC 259, 280, 281, 380, 381, 382)?

2. What are the decimal, binary and octal representations of the hexadecimal number A3?

3. Draw the schematic of a circuit using AND, OR and NOT (inverter) gates that computes the following boolean function of three logic signals (A, B and C):

   output = $\overline{(A \cdot B) + \overline{C}}$

4. Draw an equivalent circuit using only 3 NAND gates.

5. What does the following fragment of Motorola 68000 assembly program do? What is the value of D3 after the code executes?

```
          MOV.L    #$FFFE,D3
          ADD.W    B,D3
          . . .
B         DC.W     2
```

6. Identify (in one short sentence or less) the following terms:

   - EEPROM
   - parity bit
   - PAL
   - setup time
   - SCSI
   - DTE and DCE
   - $\overline{\text{DTACK}}$

7. What is the purpose of the CTS line in an RS-232 inteface?

8. Is there a microcomputer system design topic not covered by the course outline that you would like to learn about in this course (e.g. DSP microprocessor architecture, video display hardware, real-time operation, analog interfaces, device drivers for multitasking operating systems, ...)?