

A: Division _____ Instructional _____ Date June 9, 1998 _____

B: Department Science and Technology New Course X

Revision of Course _____

Dated _____

C: CMPT-250 D: Computer Systems Design and Architecture E: 3
Course Number *Descriptive Title* *Credits*

F: *Calendar Description*
This course introduces computer systems design and architecture. It

Summary of Revisions

N: Textbook and Materials to be Purchased by Students



on-Wesley

- Heuring V.P. and Jordan H.F., Computer Systems Design and Architecture. Addison-Wesley
- Portion for logic design assignments
- Two 3 1/2" high density diskettes

Course Objectives

- demonstrate an understanding of the relationship between the machine language and the computer
- demonstrate an understanding of the complexity of machine and assembly language
- designing and implementing programs in machine and assembly language
- functionally describing architectural support for operating systems and programming
- describing the function of the hardware using a formal description language such as PLM (Register Transfer Notation)
- virtually simulating the hardware functions using a high level language such as VHDL, Verilog
- using a logic circuit simulator such as LogicWorks
- using a logic circuit simulator to model and simulate various architectural components using truth tables
- quantitatively describing the complexity and speed of various architectural components using mathematical functional notation and timing diagrams
- understanding number systems and operations
- mathematically defining fixed point and floating point numbers

P: Course Content

1 The General Purpose Computer

designer's	Views: programmer's, architect's, hardware c
s. Possible (S.A.P.) computer	Review of Simple A
Physical Assumptions and the	Relationship
Microprogramming a control unit for S.A.P.	

Method of Instruction

There are three components to the course: lectures, labs, and assignments.

The book is to be used as a close adjunct to the lecture notes and exam
and practical considerations. The book is to be used as a close adjunct to the lecture notes and exam