Douglas College

Course Information

A: *Division* Instructional *Date* June 18, 1997

B: *Department* Pure and Applied Science and Technology *New Course*

Course X *Revision of C*

ne 12, 1992 *Dated* Ju

Descriptive Title | *Credits* | *Course Number*

1 OOD and OOP

1.1 Specs. for assignment #1: consists of one program encompassing most topics from the prerequisite course (does not include inheritance)

1.2 Modules, information hiding, and inheritance

1.3 Specs. for assignment #2: inheritance

2 Analysis of algorithms

2.1 Worst- and average-case complexities of sequential and binary search algorithms

2.2 Worst-case complexities of sorting algorithms: bubble sort, selection sort, linear insertion, mergesort, and quicksort

2.3 Bubble Sorting and Sorting Out Sorting

2.4 State spaces, backtracking, and exponential growth

2.5 Specs. for assignment #3: recursive backtracking in a puzzle state space

3 Dynamic data structures

3.1 Linear structures: lists, stacks, queues

3.2 Assignment #4

3.3 Trees

3.3.1 Binary trees

Q: *Method of Instruction*

There are three components to the course: lectures, labs, and self-directed learning (i.e. assignments).

[illegible] via a sequence of theoretical concepts, practical [illegible] language dependant, and one or more example case studies. The book is the [illegible] of problems and examples.

The lecture is used to introduce new trial- [illegible] considerations [illegible] used as an additional sour[illegible]

[illegible]'s practical programming ability[illegible] they are marked mostly on results [illegible] correctness of the algorithm.

The two hour bi-weekly lab is exclusively used to evaluate the student's [illegible] Assignments are the most important learning vehicle and are done on the student's own time [illegible] they are marked according to program design, correctness and efficiency of the algorithms, coding style, and completeness of the documentation.

R: *Evaluation*

The final grade will be calculated from a particular distribution from the range below. The exact distribution will be given to the student on the first day of classes along with the course outline and necessary policies.

Distribution Range:

6 labs.	=	15% - 25%
2 tests @ 15% - 20% each	=	30% - 40%
1 exam	=	20% - 30%
5 assignments	=	20% - 35%

Example Distribution:

6 labs	=	15%
test #1	=	15%
test #2	=	15%
assignments	=	25%
exam	=	25%
Total	=	100%