

Global Learning Semesters

Course Syllabus

Course: COMP-370 Algorithms

Department: Computer Science

Host Institution: University of Nicosia, Nicosia, Cyprus



Course Summary		
Course Code	Course Title	Recommended Credit Hours
COMP-370	Algorithms	3
Semester Offered	Contact Hours	Prerequisites
Spring	42	COMP-301 Data Structures.
Department	Level of Course	Language of Instruction
Computer Science	Upper Division	English

Course Description

Topics to be covered: Running time of a program, Big-Oh and Big-Omega notation, implementations of lists, stacks, queues, trees, operations on sets, graphs (directed, undirected), graph algorithms, sorting algorithms, analysis of recursive algorithms, greedy algorithms.

Instructor

Dr Athena Stassopoulou

Course Aims and Objectives

To present to students the data structures and algorithms that are of fundamental importance in Computer Science. To enable students to evaluate a given implementation in terms of its efficiency. To study various topics such as storage and execution time requirements, implementations of lists, trees, graph algorithms, minimum spanning trees, shortest paths etc.

Teaching Methods

The course is delivered through lectures and assignments.

Course Teaching Hours

42 hours. The course is delivered during the spring semester in 14-weeks (3 hours/week).

Evaluation and Grading

Assignments/Homework:	10%
Tests:	40%
Final Exam:	50%

Readings and Resources

Required Textbook

A. V. Aho, J. E. Hopcroft, J. D. Ullman, Data Structures and Algorithms, Addison-Wesley Publ. Co.

Recommended Reading

Mark Allen Weiss, Data Structures and Algorithm Analysis, Benjamin Cummings, 2nd edition, 1995.

T.H.Cormen, C.E. Leiserson, R.L. Rivest, Introduction to Algorithms, MIT Press, 1992.