

Global Learning Semesters

Course Syllabus

Course: COMP-301 Data Structures

Department: Computer Science

Host Institution: University of Nicosia, Nicosia, Cyprus



Course Summary		
Course Code	Course Title	Recommended Credit Hours
COMP-301	Data Structures	3
Semester Offered	Contact Hours	Prerequisites
Spring	42	COMP-255 C++ Language Programming
Department	Level of Course	Language of Instruction
Computer Science	Upper Division	English

Course Description

Systematic study of data structures encountered in computing problems; structure and use of storage media; methods of representing structured data; and techniques for operating on data structures. Topics include stacks, queues, lists, multi-linked lists, priority queues, trees, graphs, sorting & searching mechanisms and recursion.

Instructor

Dr Andreas Savva

Course Aims and Objectives

This course introduces the student to the fundamental abstract data types and their representations based on arrays and pointers. It also discusses the advantages and disadvantages of the different representations of data types and introduces algorithms for efficient searching, insertion and deletion in data structures stored in memory.

Teaching Methods

The course is delivered through a mixture of lectures, presentations, handouts, tutorials and assignments.

Course Teaching Hours

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

Evaluation and Grading

Homework: 20%
Mid-Term: 30%
Final Exam: 50%

Readings and Resources

Required Textbook

Robert L. Cruse, Clovis L. Tondo, Bruce T. Leung, "Data Structures and Program Design in C", 2nd ed, Prentice Hall, 1997

Recommended Reading

Adamson, "Data Structures and Algorithms: A First Course", Springer-Verlag, 1997