Widener University
School of Engineering

ENGR 654 – Algorithms & Data Structures
FALL 2008

SYLLABUS

Note: A second volume in this series is also available.

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Course Objectives
The lectures in this course will present methodologies and data structures for
programming algorithmic solutions. Fundamental algorithms for list and tree processing,
as well as for sorting, searching, traversing, and backtracking are presented in the context
of such engineering applications as graph processing by inference engineers, network
flow analysis, and shortest path algorithms. Extensive programming in a structured
language such as C, C++, or Java is expected of each student.

Assignments
Readings other than the text may be recommended. All programming assignments must
be completed during the course. Assignment completion should be attempted by the
date(s) indicated, but no penalty will be attached to late submissions within the semester.
All program codes will be tested and must be fully documented by means of
algorithm description, fully commented and tested code, and discussion of test case
results.

STUDENTS MUST DO THEIR OWN PROGRAMMING AND REPORTING. NO
GROUP WORK WILL BE ACCEPTED.

Contacting the Professor
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**Algorithms**


**Programming**


Main, Michael and Walter Savitch, *Data Structures and Other Objects Using C++*, Addison-Wesley, 1997.