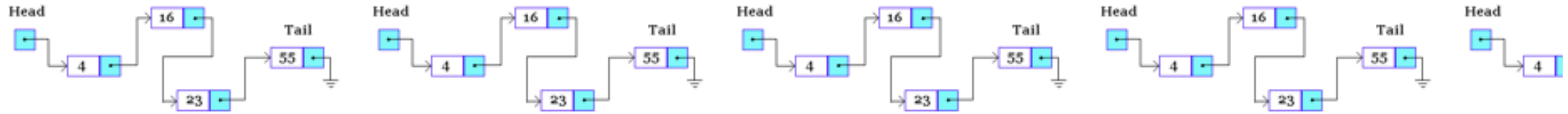


# CMSC 341 — Data Structures — Fall 2015



[Home](#) [Sections](#) [Topics](#) [Homework](#) [Projects](#) [Exams](#) [Resources](#) [FAQ](#) [Staff](#) [Syllabus](#)

## Syllabus

### Course Description

Data Structures are the paramount concern of this course. The principle objective of the course is to help you learn how to design and analyze a wide range of data structures.

The course covers data structures and associated algorithms. Relationships among data structures, their utility in various situations, and factors affecting their performance in algorithms will be considered. You will learn to analyze the demands of algorithms, how to choose appropriate data structures, and how to integrate data structures into algorithms.

### Textbooks

#### Required Textbook

- [\*Data Structures and Algorithms in C++\*](#) 2nd Edition

by Godrich, Tamassia, and Mount,  
Wiley, ISBN 978-0-470-46044-3

## Recommended

You should have a C++ language reference book handy.

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## Prerequisites

We will assume that you have mastered the material from [CMSC 201](#), [CMSC 202](#), and [CMSC 203](#). We will not review material that has been covered in the prerequisite courses. We assume prior experience with C++ (CMSC 202). A short review of important C++ concepts and techniques will be provided. We do cover a few of the concepts from CMSC 202, but from a deeper point-of-view. If you are not familiar with C++, please seek help from [Computer Science Help Center](#) or TA.

***Note: Computer science majors must also have completed CMSC 201 and CMSC 202 with a grade of B or better to be enrolled in this course.***

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## Grading

The weighting of grades between projects, homework and exams varies by section. Please consult the section web pages for this information.

Your final letter grade is based on the standard formula:

$$0 \leq F < 60 \leq D < 70 \leq C < 80 \leq B < 90 \leq A \leq 100.$$

These levels may be adjusted slightly in your favor, but grades will not be “curved” in the conventional sense.

Your grade is given for timely work done during the semester; incomplete grades will only be given for medical illness or other

such dire circumstances.

Note that the due dates for the projects and the dates of the exams are already set (*q.v.*, the course schedule). Please plan your schedules accordingly. Makeup exams will be given only under the most dire circumstances (almost never).

Your grade is based on 6 programming projects, 6 homework assignments, 2 in-class exams and the final exam. The points are distributed as follows:

**You will be allowed 3 "Grace Days" on projects 1-5 (not project 0). See Projects->Late Policy.**

	points	#	Total
Project 0	3	1	3
Project 1-5	7	5	35
Homework 1-6	2	6	12
Exam 1 & 2	15	2	30
Final Exam	20	1	20
<i>Total:</i>			100
Bonus Points (on 1 project)			+10 max

## Attendance and Readings

You are expected to attend all lectures. You are responsible for all material covered in the lecture, even if it is not in the textbook. You should keep up with the assigned readings during the semester. Some reading material will be distributed through the course web page. You are responsible for the material in the readings, even if it is not covered during lecture.

You must study to do well in this course. It will not be enough to attend lectures and do the homework. As advanced undergraduates, you will be responsible for learning material that is not necessarily covered in lectures. A prime learning

requirement is that you contribute to class discussions and raise questions about the course material.

Five quizzes will be given sporadically through out the semester (2pts each). At the end of the semester the points from quizzes will be added as bonus points to **one of your projects**.

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## Contacting your instructor or the TAs

Please feel free to visit your own instructor or any of the TAs during their office hours. If you can't make it during the regular hours, please ask for an appointment. Office hours, phone numbers and other [contact information](#) is available on-line. If you need to contact any of the course staff outside of lecture and office hours, email is much better than the telephone. You should, however, observe the following etiquette:

- Do not email program code. If you want your instructor or the TA to help you debug your code, copy your code into the shared folder on GL and then send email about the problem. We can retrieve the code from the shared folders. **Please, do NOT mail code to your instructor or to TA!**
  - Please use your your UMBC account to send mail. This will remove any ambiguity about who you are. (For those of you with multiple Gmail accounts, do not name your UMBC Gmail account "UMBC". Your outgoing mail will display your name as "UMBC".)
  - Include a meaningful subject line, something like "CMSC 341 Project 2 question."
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## Academic Integrity

Cheating in any form will not be tolerated. Instances of cheating will be reported to the UMBC Academic Conduct Committee. These reports are filed by the Committee and can be used for disciplinary action such as a permanent record on your transcript. Academic honesty is absolutely required of you. You are expected to be honest yourself and to report any cases of dishonesty you see among other students in this class. Reports of dishonest behavior will be kept anonymous.

Further details on honesty in doing projects for this course are on-line at the [Project Academic Conduct](#) link.

Also, any deliberate abuse of the grading and submission procedures, whether to hide an act of misconduct, or to hinder others from timely submission, is regarded as academic misconduct in its own right.

Students are welcome and encouraged to study together for exams, but examinations are to be your own work — not your neighbor's and not your notes. All exams are closed-book, closed-notes. Only pencils (or pens) and erasers are permitted in the exam room unless otherwise indicated. Scratch paper is provided to you, as needed. Having any other materials in your possession during an exam will be taken as evidence of cheating and dealt with accordingly.

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## Course & Section Web Pages

Please check both the course and section web pages frequently. Any changes to the page will be mentioned in the Announcements.