

## CSC 2430: Data Structures I

### Winter 2017 Schedule: Topic Outline and Order

The following is an approximate time schedule for this class. Please note that we may go ahead or fall behind this schedule at certain points in the term, but all topics will be covered in the depth required for you to be successful in the next class, Data Structures II (CSC 2431).

Date	Topic(s)	Reading	Schedule Notes
Jan 4 Wed	Introductions. Course Syllabus.  Software Development Review of C++. Primitive datatypes 2's complement. I/O Review	Course Syllabus  §Malik Ch 1-8	CSC 1230: Malik Ch 1-8 Very light array coverage
Jan 9	Fcns/params. Default params. Fcn overloading. Assert() C-Strings. StrPkg Lab discuss. Structs. Intro to OO.	Malik Ch 8  Malik Ch 8 Malik Ch 9, 10	
Jan 16	Monday - - - MLK Holiday - - -  Classes. Points example. Constructors. Methods.	Malik Ch 10	<b>MLK Holiday – no classes</b>
Jan 23	Public/Private. Encapsulation. Names & Checking Accts examples. Finish up and Review for midterm.	Malik Ch 1-10	
Jan 30	Review Midterm.  Detailed look at first OO lab (eg, Triangles).	Skip Ch 11 (Inheritance, Composition) Malik Ch 12 Intro. pointers. Dynamic allocation/NEW Part 1 notes	<b>Friday Feb 3: Midterm Exam (Closed book)</b>
Feb 6	Intro. pointers. Dynamic allocation/NEW Class design with dynamic storage Copy constr, op=, destructor	Malik Ch 12 Part 2 notes	Skip Ch 12 sections on Inheritance Virtual Functions, Abstract Classes.
Feb 13	Brief coverage – if time permits Scope/Lifetime; Namespaces; Brief: Exceptions, try-catch Intro Pointers & Linked Lists	Malik Ch 15 Malik Ch 14  Malik Ch 16	Skip Ch 13 (templates, Operator overloading) Very brief: scope, namespaces Very brief try-catch
Feb 20	Monday - President's Day Holiday Pointers & Linked Lists By-position lists. Linked List variations.	Malik Ch 16	<b>President Day Holiday – no classes</b>
Feb 28	Sorted Lists, By Value organization. Review Stacks, Queues.	Malik Ch 17	Brief coverage
Mar 6	Review & Practice for Final Exams	ALL previously covered sections	
Mar 13	Monday, Last class	Review	
Mar 15 Wed	Final Exam: Wednesday, March 15		<b>WEDNESDAY, MARCH 15 FINAL EXAM → 10:30 – 12:30</b>