



CIT-245: Data Structures and C++
 Syllabus | Fall 2020 | Sec: NC31
 Mon/Wed 12:30pm-1:45pm | Sync. Zoom

instructor:	Eric C. Darsow CCAC North/West CIT dept. Faculty Instructor
office Hours:	Zoom: Mon/Wed 12:30-1:45 pm
semester:	Fall 2020 (16-week course)
instructor Contact methods:	In-Zoom preferred, followed by phone calls: 412.894.3020 Please do not email unless doing so is a special electronic mail use case as described on course website
CCAC CIT/DAT department: contact	Ogden, Patricia A. pogden@ccac.edu 412.366.7000 1000 McKee Road Oakdale, PA 15071
CIT/DAT department chair:	Dr. Rebecca E. DuPont relinich@ccac.edu
course Credits:	4.0
prerequisites:	CIT 130 (Object-oriented Java) or with Instructor's permission

I: Course Description:

This is a course in software design and development which focuses on data abstraction and implementation of information structures. The course introduces the object oriented language C++. Topics include arrays, pointers, lists, stacks, queues, and trees.

II: Learning Outcomes

The following content is extracted directly from the CCAC master course syllabus for CIT 245:

1. Develop and present problem solutions using abstract data types.
2. Compile, build, and execute C++ programs.
3. Implement, by using codes, code linked lists, stacks, queues, and trees.
4. Compare the efficiency of different algorithms.
5. Implement various sorting and searching algorithms

III: The nitty gritty

textbook & materials	Students are encouraged to buy a used copy of Bjarne Stroustrup's <i>Programming: Principles and Practices Using C++</i> . Stroustrup created C++ and actively collaborates in its ongoing evolution--as such, his text is considered an <i>authoritative source</i> . CCAC Lists the Gaddis text on C++, which is also an option. Course website: Master course website with session-specific content, submission portals, and assignment details: https://technologyrediscovery.net/#datastructures
letter Grades	Drawing on completed work and contributions to our class learning environment, propose a fair letter grade and a justification at midterm and final times using a 3x5 card--and mailing or emailing it to Eric . A written and video description is available via: https://technologyrediscovery.net/coursesGen/trgrading.html Attend the final session! Attendance at final session on <u>Wednesday, 9 December 2020 @ 12:30 pm</u> and sharing of <i>fully-baked</i> final project is required to sufficiently justify a grade proposal of A or B except for pre-approved absences and "urgent, incidental, overriding life events"
due date	Work submission and grade proposals will be accepted until Wednesday, 16 December 2020 @ morning light but no later. Grades are due to CCAC @ 10:00am
attendance & tardiness	As a primarily in-class driven course, please try to attend 75-85% of sessions . Eric recognizes that students face varied constraints which can differently impact feasibility of class attendance. <i>Tardiness shall not be considered a factor in attendance.</i>
tests:	No high-stakes tests! Low-stakes, mini assessments written on single note cards will help track learning.
technology	We'll use an online, container-based C++ environment called repl.it Students will need to share a link to their repl.
Academic Honesty	Provide written credit to all relevant authors of all code, writing, and project work for this course, including yourself and folks who help you (but who may not be published authors). Include direct URLs of websites consulted. Honor the copyrights associated with all content used in this course. Consequences: Students suspected of academic dishonesty will be asked to produce documentation to support any attributions (or, non-attributions).

IV: Official CCAC notices

my. ccac. edu	Students are reminded that they can access their course information and CCAC email account, the CCAC Academic Calendar (including add/drop/withdrawal deadlines), the Student Handbook, the College's Incident Report Form, and many other College services through the MyCCAC portal: https://my.ccac.edu
student handbook	<p>All students are expected to read and comply with the policies and regulations set forth in the CCAC Student Handbook, including without limitation the College's policies regarding academic and behavioral conduct, the procedures for requesting an accommodation based upon a disability, pregnancy or pregnancy related condition, or a religious observance, and for reporting unlawful discrimination and harassment.</p> <p>The Student Handbook is available to view and download along with the full text of the College's <i>Policy Manual</i>, <i>Administrative Regulations Manual</i>, and the Civil Rights Complaint Procedure:</p> <p>https://www.ccac.edu/academic-rules-and-regulations/rules-and-regulations.php</p> <p>https://www.ccac.edu/president/policies-and-regulations.php</p>
diversity	<p>Title IX of the Education Amendments 1972 (20 U.S.C. 1681 et seq.) and its implementing regulations, 34 C.F.R. Part 106, prohibit discrimination on the basis of sex in education programs or activities operated by recipients of Federal financial assistance. It is the landmark legislation that bans gender based discrimination in schools and colleges.</p> <p><i>"No person in the U.S. shall, on the basis of sex be excluded from participation in, or denied the benefits of, or be subjected to discrimination under any educational program or activity receiving federal aid."</i></p> <p>https://www.ccac.edu/diversity/title-IX.php</p> <p>https://www.ccac.edu/diversity/notices.php</p>
disability	<p>Information concerning the process and documentation required to request a disability-related accommodation can be obtained by contacting the campus' Office of Supportive Services for Students with Disabilities (OSSSD) or by visiting the OSSSD information page</p> <p>https://www.ccac.edu/supportive-services/suppotive.php</p>

V: Content licensing and sharing

licensing	<p>All non-computer code content on technologyrediscovery.net (course content, images, media) is licensed under the Creative Commons Share-Alike license (CC BY-SA 4.0); no attribution required.</p> <p>https://creativecommons.org/licenses/by-sa/4.0/</p> <p>Computer code is licensed by file; most course code is copylefted under the GNU Public License</p>	
contribute	<p>You are invited to anonymously contribute your work products in this course to the freely reusable <i>creative commons</i> educational material ecosystem made possible by copy left licenses. Any work contributed to this course will fall under this site-wide license scheme.</p>	
sharing elections	<p>Please review the sharing preference options and CHOOSE ONE by initialing and dating the bottom of the box. You may change these at any time by talking with your instructor.</p>	
	<p>A. Full participation: You may anonymously store and reproduce my coursework in the <i>creative commons</i> (except for individual work pieces marked with a big X or "do not share" DNS) init: ___ date: ___</p>	<p>B. Partial participation: I'm open to sharing but would like to release work individually upon instructor request (default no share). I will submit any work <i>I do not want shared as a hard copy</i> to my student folder. init: ___ date: ___</p>
		<p>C. Non-participation: I do not authorize the sharing of any of my coursework and will submit all my work hard copy to my student folder (never online). init: ___ date: ___</p>