SYLLABUS

CS-116 - Object-Oriented Programming Using C++
2021 Fall Semester (8/30/21 – 12/17/21)

Instructor: **Ron Sha** **rsha@ohlone.edu**
The best way to contact me is via email (**rsha@ohlone.edu**). I will respond to all emails within 48 hours.
Office Location: NC2209 & Online
Office Hours: Available by appointment to fit your schedule. Please email me to request an appointment.
Department, Course Number: **CS-116-01 (082608)**
Department Website: **https://www.ohlonecs.com/**
Course Dates: 2021 Fall Semester (8/30/21 – 12/17/20)
Course Times: Online - Mon 8AM - 9:50AM (See canvas for more details)
Class Room Location: Online – (See canvas for more details)
Last Day of Class: 12/6/21
Deadline to Add/Drop w/o a "W": 9/12/21
Deadline to Drop with a "W": 11/18/21
Course Format (Online/Hybrid/In-Person): Hybrid
Course Credits: 4 semester Units
Tests: Will be announced in class. NO makeup test will be given

Final: 12/13 8AM – 10AM

NO CLASS:

- Mon 9/6 (Holiday – Labor Day)
- 12/13– No class, Final week

Course Description

This intermediate-level programming course is intended for those students who already have completed an introductory programming course. It presents a comprehensive study of the C++ programming language and its role in the realm of object-oriented programming. The C++ language supports input/output streams, class constructs, inheritance, polymorphism, function and operator overloading, function and class templates, and exception handling.

Prerequisites

CS 102 Introduction to Computer Programming Using C++

Textbook:

Big C++: Late Objects, 3rd Edition
Cay S. Horstmann

ISBN: 978-1-119-40297-8 October 2017
https://www.wiley.com/en-us/Big+C%2B%2B%3A+Late+Objects%2C+3rd+Edition-p-9781119402978

Course SLO's:

The student will:

1. *Compare and contrast object-oriented programming with procedural programming*
2. *Practice creating modules using encapsulation, information hiding, inheritance, and polymorphism*
3. *Recognize the concept of types as a set of values together with a set of operations*
4. *Design and construct Exception handling methods*
5. *Create Linked Structures using pointers*
6. *Formulate procedures, functions, and iterators as abstraction mechanisms*
7. *Construct parameterized types (i.e. class templates in C++)*
8. *Propose and evaluate the separation of specification and implementation*

Course Requirements:

1. *Homework to practice computer programming skills and techniques*
2. *Programming assignments to synthesize techniques*
3. *Lab Activities for guided practice developing solutions*
4. *Quizzes on computer science concepts*
5. *Final Exam on all concepts and skills learned*

Drop Dates/Finals Dates

For a list of important course dates, click current Academic Calendar

Technology Requirements

You must have access to computer and internet. *Click here for more details.*

Help & Support

For information about how to log in to Canvas, and for help, go to the eCampus Website: **https://www.ohlone.edu/eCampus**

Course Content and Assignments

All course contents and assignments are posted in Canvas for this course.

Class Note: *Students are responsible to sign in to Canvas the learning management system as all assignments are posted in canvas. Throughout the period of the course you are responsible to check announcements and check in as often as necessary to keep up with coursework. Make sure that the email you have on file in Canvas is the current one. You can also subscribe inside Canvas to receive automatic notifications. View this guide to learn how:* *https://community.canvaslms.com/community/answers/guides/*

All assignments are to be submitted via the online course management system Canvas. All assignments are due as stated in canvas. It is your responsibility to keep up with current announcements and emails from canvas.

Topics (I may add more, but at minimum these topics are covered)

- Abstract Data Types (ADT)
- MySQL
- C++ input/output stream methods
- File input/output methods
- Structures and Classes
- String streams
- Parameters and Overloading
- Designing classes and objects
- Inheritance and composition
- Data Structures: Linked list, Pointers
- Standard Template Library
- Exception Handling

Lab

- Review writing, compiling, and running basic C++ programs
- Lab assignment to reinforce course materials

Grading:

Activity	Percent
Lab assignments	35%
Participation	5%
Tests/Final	60%
Total:	100
Range	Grade
90-100%	A
80-89%	B
70-79%	C
60-69%	D
Below 60%	F

Participation:

Class attendance facilitates learning in a variety of ways. Lectures supplement reading assignments. Classroom presentations present information differently than the text. Discussion and elaboration of topics provides current information that may not be found in the textbook.

Even if you think you already understand the material well, classes always add something new. I may go over examples or applications you haven't seen, concepts in class may be presented in a different way than in the textbook, and student questions and discussion may elaborate on the material or provide new insights.

However, I do understand that you may not be able to attend every session during the semester. However, it is your responsibility to catchup the materials you have missed. I will use attendance as part of participation grade.

Participation points may also be given for other activities such as for online discussions and classroom participations.

Lateness Policy:

All assignments, projects, tests, and final exam are due on the due dates as stated. Partial credit may be given at my own discretion for assignments submitted after the due dates **ONLY if you have** received my **prior approval ONLY for unforeseen documented EMERGENCIES**. All late assignments/Labs **will NOT** be accepted if you did not receive my written prior approval.

All assignments are to be submitted via the assignment tools via Canvas;

assignments submitted via email will not be accepted.

There is **no make-up work** on anything (labs, quizzes, or exams). If you are late or miss it, no matter what the reason, then the score is zero unless you received a prior written approval which I don't give easily.

Instructor Participation/Responses to Email and Discussion

- *Your instructor will respond to email requests within 48 hours during the workweek. Weekends are subject to other College Activities taking place. All times are Pacific Standard Time.*
- *Your instructor will not respond to every post to the discussion board but will respond with helpful comments and advice as appropriate. Your instructor will read all discussion postings.*

Withdrawals/Drops

It is the student's responsibility to withdraw from the class if he/she no longer wishes to attend. If a student does not complete the class or the withdraw process, the student will receive a grade of "F." The instructor will not issue "I", to signify an incomplete grade. It is the student's responsibility to drop or to take a "W." The last day to drop from a full-term class with a "W" grade is X. *Click here to view Ohlone academic calendar for important dates.*

Scholastic Honesty & Plagiarism

Students are responsible for understanding school's policy on Scholastic Honesty. By enrolling in this class the student agrees to uphold the standards of academic integrity described a https://www.ohlone.edu/procedure-academic-dishonesty-administrative-procedures-chapter-not-assigned

Accessibility

If you have a documented disability and wish to discuss academic accommodations, or if you would need assistance in the event of an emergency evacuation, please contact me as soon as possible.

Students with disabilities needing accommodation should speak with the Accessibility Services. As required by the Americans with Disabilities Act, (ADA) accommodations are available to ensure equal opportunity for students with verified disabilities. If you feel you may need an accommodation to succeed in this course, please contact Student

Accessibility Services at the beginning of the semester, either by visiting them or by visiting their website at: *https://www.ohlone.edu/sas*

Emergency Information:

Information on what to do in an emergency situation (earthquake, electrical outage, fire, extreme heat, severe storm, hazardous materials, terrorist attack) may be found at: https://www.ohlone.edu/cps

https://www.ohlone.edu/personal-issues-emergency-information-counseling-department

	2021 FALL CS116 Topics Schedule **Schedule Subject to Change - as of 8/24/21**	
Week 1	8/30/2021	Syllabus, Makefile, Review C++
Week 2	9/6/21	NO Class – Labor Day
Week 3	9/13/2021	Pointer & Vector
Week 4	9/20/2021	Class Object
Week 5	9/27/2021	Class Object
Week 6	10/4/2021	**Test (Pointer, Vector, Class Objects);**
Week 7	10/11/2021	Operator
Week 8	10/18/2021	Inheritance
Week 9	10/25/2021	Inheritance
Week 10	11/01/2021	Midterm (Inheritance and Everything covered so far)
Week 11	11/08/2021	Polymorphism
Week 12	11/15/2021	Linked List, Template
Week 13	11/22/2021	MySQL
Week 14	11/29/2021	MySQL
Week 15	12/06/2021	Exception Handling, STL
Week 16	12/13/21	Final Exam 8AM-10AM