Course Information

Course Name: Object-Oriented Programming II
Course ID: CIS 181
Semester: Fall 2021
Mode: In Person
Class: CIS 181-01 TuTh 9:30am - 10:45am; Dion 115
Lab Section1: CIS 181-01LB; We 12:00pm - 1:50pm (Sharan Anil Kumar); Dion 305
Lab Section2: CIS 181-02LB; Mo 1:00pm - 2:50pm (Sharan Anil Kumar); Dion 305

Instructor Information

Instructor Name: Yuchou Chang
Email: ychang1@umassd.edu
Office: DION-317B
Phone: 508-999-8475
Virtual Office Hours (In Person and Online): 11am-12pm Tuesday and Thursday (In Person at DION-317B and online Zoom meeting), 12pm-2pm Friday (only Zoom meeting), and by appointment.
Zoom meeting ID: 268 732 2616
Zoom meeting passcode: KRt0re
Zoom meeting URL: https://umassd.zoom.us/j/2687322616?pwd=dUlWQldTTG5OaFJFVE5ZVi9zbmxhUT09

TA Name: Sharan Anil Kumar
Email: sanilkumar@umassd.edu

Course Description

Software development using advanced object paradigm concepts. This course introduces threads, networking, and exception handling and covers in depth the advanced topics of object paradigm such as inheritance and polymorphism. These concepts are introduced in the context of developing software using software tools including the libraries of components.

Prerequisite:
CIS 180 C or Better.

Course Credits:
4

Required Text:
Textbook: F. M. Carrano and J. Prichard, Data Abstraction and Problem Solving with Java, Walls and Mirrors, 3rd Edition (or newer), Addison-Wesley, 2011, ISBN: 0132122308.

Required Materials:
PowerPoint slices have been posted on myCourses.

Course Objectives

- Learn the design and implementation of ADTs in form of classes.
- Learn problem solving techniques including abstraction, refinement and recursion.
- Master the understanding of the object paradigm.
- Develop a deep understanding of inheritance and polymorphism.
- Develop a basic understanding of threads, generic programming and exception handling.
- Learn data structures including linked list, stack and queue.

Course Outcome

By the end of this class, Students should be able to:

- Apply programming and software engineering principles in software development.
- Use Java interface and Java class to specify, design and implement ADT.
- Design, implement and debug recursive methods in Java.
- Understand the advantages of the object paradigm over procedural paradigm.
- Apply inheritance and polymorphism mechanisms in developing Java classes.
- Use Java exception handling to make Java program fail-safe.
- Use classes from Java Collections Framework for generic programming.
- Design and implement ADT list, stack and queue using array and linked list.

Communication Plan

Expectations for Electronic Communication
Please use email (preferred) when you have any question or concern. I check my email daily Monday through Friday during normal business hours only. You can expect a reply from me via email within 24 hours during the workweek. You may get an email reply during the weekend.

Besides virtual office hours using Zoom meetings in myCourses, you can schedule Zoom meeting for individual meeting by appointment. Please send me email for making an appointment of individual Zoom meeting. We also have in person office hours, as shown at the beginning of this syllabus.

Methods of Instruction

Modality Definition

- Remote learning: the entire course is conducted using teleconferencing software and other technologies. Classes may be conducted synchronously (where instructor and students meet virtually at set times) or asynchronously (course is designed to be delivered virtually and instructor and students interact through online tools when needed or scheduled meetings).
- Face-to-face: students and faculty meet in person for all scheduled classes in the classroom/lab/studio.
- Blended: part of the coursework is completed synchronously (or asynchronously) remotely, and another part is completed in a face-to-face setting. Communicate percentage of instruction that will be online. Describe how students will know when they should plan to participate remotely and expectations for remote participation.

Our course consists both of lectures and labs. The lectures and lab sessions are face-to-face mode. No remote learning is provided in Fall.

Grading

The course will not be eligible for the P/NC option in Fall 2021. All courses will be evaluated using the UMass Dartmouth grading system as defined here:
https://catalog.umassd.edu/content.php?catoid=62&navoid=5015#Grades_and_Grading_System

The major grades are presented in the table below. More details about grades and grading system can reference the link above.

Letter Grade	Percentage	Quality Points
A+	97-100%	4.000
A	93-96%	4.000
A-	90-92%	3.700
B+	87-89%	3.300
B	83-86%	3.000
B-	80-82%	2.700
C+	77-79%	2.300
C	73-76%	2.000
C-	70-72%	1.700
D+	67-69%	1.300
D	63-66%	1.000
D-	60-62%	0.700
F	0-59%	0.000

If your percentage is on boundary of two letter grades, percentage will be rounded up to next grade. For example, if your final percentage is 86.1%, your grade will be B+ rather than B, since 86.1% is rounded up to be 87%. But if your final percentage is 86.0%, your grade will be B, because there is no rounded up for 86.0%. According to the University's Incomplete Policy: At the student's request, and no more than 48 hours after the final exam or class, an incomplete grade may be given only in exceptional circumstances at the discretion of the instructor. The student must be passing the course at the time of the request or be sufficiently close to passing that the instructor believes that upon completion of the work, the student will pass the course. If the work is not completed within one year of recording the I, the grade will become an F(I).

Final Grade Breakdown:

- 5% - **Quizzes of Computational Thinking**
- 20% - **Labs**
- 10% - **Homework Assignments**
- 15% - **Midterm exam 1**
- 15% - **Midterm exam 2**
- 15% - **Project Assignments**
- 20% - **Final Exam**

Explanation of Final Grade Components:
You are expected to take an active role in your learning process. This includes regular attendance, paying attention and taking notes in class, reading the textbook, and completing all course requirements.

Late Assignments:
Complete all required work on time. In the event that an exam must be missed, or required work cannot be completed on time, due to illness or other serious and unavoidable circumstance, notify the instructor as far in advance as possible by e-mail. Late assignments will not be accepted under any circumstances unless students or a family member become sick or other serious and unavoidable circumstance. Make-up exams will not be given unless illness or other serious and unavoidable circumstance. Realities of the pandemic will be considered. All assignments (e.g. homework, projects, labs) can be found, as well as, submitted on the myCourses. No other form of submission will be accepted. It is your responsibility to take exams at the scheduled times and to make alternative arrangements in advance if you have a legitimate reason for not being able to take an exam when scheduled, and to provide appropriate explanation and documentation if they miss an exam without making prior arrangements.

Please login myCourses and check out deadlines for all homework, labs, quizzes, and projects. Add those deadlines into your calendar.

Vaccination Requirement

Communicate UMass Dartmouth's requirement for COVID-19 vaccinations for all undergraduate and graduate students who wish to live, learn, or physically come to campus before the start of the Fall 2021 semester. Further details are provided here: https://www.umassd.edu/covid/planning/
Students are required to upload their proof of vaccination to the Health Services Portal. Students claiming an exemption to the requirement must also submit either a written request for exemption upon religious grounds or medical exemption documentation from a healthcare provider. Follow these links on how to upload your COVID vaccine documentation guide to add your information to the Health Services portal.

Personal Responsibility

Communicate that every member of the UMassD community must do their part to protect one another, including:

- Using face coverings in all public places on campus unless a medical exemption is obtained.
- Complying with the MA face covering requirement, that is, students and faculty must wear a face covering at all times in classrooms and labs.
- Practicing good personal hygiene including handwashing per CDC guidelines.
- Avoiding eating and drinking in classrooms and labs.
- Staying home or isolated if they feel sick or exhibit known COVID-19 symptoms.

Academic Integrity

You are encouraged to discuss assigned problems with other people but you must individually design and write your own solutions / code for all assignments. Furthermore, you should explicitly acknowledge any sources of ideas used that are not your own; this includes other people, books, web pages, etc. "Sharing" of solutions strictly prohibited. Submitting modified versions of other people's work as your own is considered cheating. I reserve the right to use any method of plagiarism detection whenever I deem fit.

There is a zero-tolerance policy for academic dishonesty. This means there is no excuse you can come up with that will make it a justifiable offense (Example: "If I don't receive a B- or better, I will not be able to stay in this country, so I plagiarized this assignment"). Repercussions for offenders range from being "rewarded" with a grade of "F" to filing for dismissal from the University.

For more information about academic integrity, you can see here:
https://instructionaldev.umassd.edu/academic-integrity/

Center for Access and Success

In accordance with University policy, if you have a documented disability and require accommodations to obtain equal access in this course, please meet (can be online meeting) with the instructor at the beginning of the semester and provide the appropriate paperwork from the Center for Access and Success. The necessary paperwork is obtained when you bring proper documentation to the Center.

University Academic Policies

These policies are also available in the student handbook on the University website - umassd.edu

- Information on Incompletes
- Student Behavior
- Student Academic Integrity
- Definition of Credit Hour
- Course Withdrawal
- Grade Appeal
- Attendance Policy

- Academic Calendar
- Title IX and Sexual Assault/Harassment

Academic and Technical Support

Tutoring

- If you have difficulty with the coursework, please reach out to me or contact the Academic Resource Center.
- The Multiliteracy & Communication Center offers online writing tutoring.

Technical Help

- 24/7 email, live chat, and phone support for myCourses is available at the myCourses support portal.
- Do you need help with other UMass Dartmouth technologies? Please contact CITS.

Course Schedule

The detailed course schedule is presented in the table below.

CIS 181 Syllabus Fall 2021					
This Syllabus is a tentative outline, and approximates the time we will need for each topic. Changes may occur based on the speed we progress with.					
Week #	Week of	Topics	Suggested Reading	Lab #	Notes
1	Aug 30	Review of Java Fundamentals Programming Principles	Chap 1, 2.1, 2.2		09/02 first day of classes
2	Sep 6	Software Engineering	Chap 2.3	1	09/09 last day to Add/Drop/Audit
3	Sep 13	Recusrion	Chap 3, 6	2	
4	Sep 20	Recusrion - continue	Chap 3, 6	3	
5	Sep 27	Midterm Exam 1			09/30: Midterm Exam 1
6	Oct 4	Abstract Data Types	Chap 4	4	10/07 last day to file Pass/Fail
7	Oct 11	Abstract Data Types - continue	Chap 4	5	
8	Oct 18	Linked Lists	Chap 5	6	
9	Oct 25	Linked Lists - continue	Chap 5	7	
10	Nov 1	Midterm Exam 2			11/04: Midterm Exam 2
11	Nov 8	Inheritance and polymorphism	Chap 9	8	11/12 last day to Withdraw a class
12	Nov 15	ADT Stacks	Chap 7	9	
13	Nov 22	ADT Stack and Queues	Chap 7, 8	10	11/25 Thanksgiving, no class
14	Nov 29	ADT Queues	Chap 8		
15	Dec 7	Review for final			12/07 last day of classes
	Dec 9	Final Exam, Thursday, 8:00am-11:00am			Final exam is in Dion 115
No class or lab on holidays indicated by UMassD Academic Calendar. More details of Academic Calendar on https://www.umassd.edu/academiccalendar/academic-calendar-2021-2022/ Final exam is scheduled based on university guidance. You can check it out here: https://www.umassd.edu/media/umassdartmouth/registrar/pdf/Fall-2021-Final-Exam-Schedule.pdf					

Lab Schedule

For Lab Session questions, you can contact the TA, Mr. Sharan Anil Kumar at first. His email: sanilkumar@umassd.edu.

CIS 181 Lab Schedule (Blended Instruction Mode)			
Week #	Week of	Lab #	Instruction Mode
Two lab sessions include CIS 181-01LB (12112) and CIS 181-02LB (12113)			
1	Aug 30	Lab#	No lab at the first week
2	Sep 6	1	Room Dion 305
3	Sep 13	2	Room Dion 305
4	Sep 20	3	Room Dion 305
5	Sep 27		Room Dion 305
6	Oct 4	4	Room Dion 305
7	Oct 11	5	Room Dion 305
8	Oct 18	6	Room Dion 305
9	Oct 25	7	Room Dion 305
10	Nov 1		Room Dion 305
11	Nov 8	8	Room Dion 305
12	Nov 15	9	Room Dion 305
13	Nov 22	10	Room Dion 305
14	Nov 39		Room Dion 305
Note that for lab sessions, there are face-to-face meetings in Room Dion 305.			