

CSCI3328.03: Object-Oriented Programming in C# SYLLABUS Spring 2022

Subject to any new Texas legislative mandate changes.

COURSE INFORMATION:

Meeting times: TR, 2pm - 315pm

Meeting location: SABH 2.102, Brownsville Campus

Course Modality: Traditional Face-to-Face

INSTRUCTOR INFORMATION:

Instructor Name: Liyu Zhang Phone: (956) 882-6631

E-Mail: liyu.zhang@utrgv.edu

Office hours: MW 10 - 12, TR 1130 - 1230 and by appointment

Office location: SETB 1.522, Brownsville Campus

COURSE DESCRIPTION, PREREQUISITES & MODE OF LEARNING

<u>Course Description</u> (Catalog) The C# programming language and .NET environment will be introduced with an emphasis on widows-based, event driven programming and the use of objects, LINQ and XML. Topics may include UML, generic collections, database connections, XML, inheritance and polymorphism, exception handling, event driven programming, concurrent programming, windows forms, files and streams, databases, and Web Services.

Prerequisites Grade of C or better in: [CSCI 1370 or CMPE 1370] and [CSCI 1170 or CMPE 1170].

Mode of Learning As stated in the previous section, this course will be delivered in the traditional face-to-face way.

COVID-19 RESOURCES:

Please visit the <u>UTRGV COVID-19 protocols web page</u> for the most up-to-date COVID-19 campus information and resources. The <u>COVID-19 Frequently Asked Questions (FAQs) web page</u> offers additional guidance to specific questions. To submit a question for the FAQ, please email <u>WelcomeBack@utrgv.edu</u>.

UTRGV VACCINE PORTAL

UTRGV Students are eligible to receive the COVID-19 Vaccine. Students may access and complete their vaccine profile via the <u>UTRGV Vaccine Portal</u>. For additional information on the COVID-19 Vaccine, please visit the <u>UTRGV Vaccine web page.</u>

LEARNING OBJECTIVES/OUTCOMES FOR THE COURSE

Student Learning Outcomes (After completing this course, a student should be able to)	Program Student Learning Outcomes (evaluations of all outcomes are based on ABET standards)	Major Course Requirement/Major Assignment/Examination
(1) Understand object-oriented programming (OOP) principles in an in-depth way and apply OOP principles to the design of program structures in C#.	(1) Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.	Homework and project assignments, and exams
 (2) Develop C# programs that solves realistic computing problems of moderate difficulty/complexity. (3) Identify appropriate data types supported by C# to implement OOP designs of programs in common application areas such as database access, web page prototyping, scientific and/or large-volumn data processing and visualizations. 	(2) An ability to design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.	Homework and project assignments, and exams
 (4) develop basic GUIs using Windows Forms. (5) implement, debug and test larger-scale interactive OO programs using IDEs such as Microsoft's Visual Studio. 	(6) An ability to apply computer science theory and software development fundamentals to produce computingbased solutions.	Homework and project assignments, and exams

TEXTBOOK, TECHNOLOGY, AND/OR RESOURCE MATERIAL

The following textbook is required for this course:

Mark J Price, C# 10 and .NET 6 – Modern Cross-Platform Development, 6e, ISBN 978-1-80107-736-1, Packt Publishing, 2021

The book can be purchased at \$44.99 for a hard copy or \$29.99 for a Kindle copy from Amazon. Alternatively, Packt Publishing (packtpub.com) provides an eBook of the title for \$5 with conditions. Other required materials will be posted in Blackboard if not publicly available.

To succeed in this course, you need to be able to participate in class sessions and activities. This will require:

- Reliable internet for class meeting times
- A place to work and a reliable computer (laptop or desktop)
 - o A tablet would be very difficult for this class, and insufficient for the major
 - O Any standard computer will work. The most important considerations to compare against cost are:
 - Reliability, warranty, repair options
 - Portability, size, battery life

- Desktops are more powerful and cheaper, but portability is a high value for most students.
 We have good open CS labs on campus, but that is not the same as having your own machine with you anywhere.
- Windows is most common, and thus best supported. macOS and linux work, but you will need to have the IT knowledge and skills to adapt things (not in this class).
- Specs:
 - Minimum: 8 GB RAM, i5 processor, 256 GB storage
 - Recommended: 16 GB RAM, i7 processor, 512 GB storage
 - SSD is very nice, but is also an easier cut to reduce cost
 - 2-in-1, touchscreen, pen digitizer are all great, but they are luxuries
 - You pay a premium for a mac or a surface, you can get equivalent hardware for a lot less
 - Big GPU power only matters if you are gaming or doing heavy 3d work. A secondary desktop later on may be a better investment.
- Packages and deals are available <u>at the UTRGV bookstore</u> (<u>https://link.utrgv.edu/campusstorestech/</u>).
- Daily access to online Blackboard We will use UTRGV online Blackboard as the place for making announcements
 and posting course materials/information such as course calendar, lecture notes, assignments and grades etc. So
 please check Blackboard regularly and at least once every 24 hours. It is YOUR responsibility to keep updated with
 class through online Blackboard.

GRADING POLICIES

Attendance 10%
Assignments (Homework and projects) 40%
Exams (Midterm and Final) 50%

Grading scale: 100% >= A >= 90% > B >= 80% > C >= 70% > D >= 60% > F

<u>Re-grading</u> If you have a question about the grading of any piece of work, you should consult with the instructor of the course within one week of the date that the work was returned. In other words, if you do not pick up your work in a timely fashion, you may forfeit your right to question the grading of your work.

EXAMS AND ASSIGNMENTS

As noted in Section "Learning Objectives/Outcomes for the Course", relevant problems and parts in exams and assignments in this course will be used to assess both course and program SLOs. They are also essential course components that help you learn and reinforce knowledge and skills you are expected to obtain from the course. Logistic information and more detailed requirements about the exams and assignments are described below.

There is one midterm exam during the semester, which will be held in regular lecture time on **Thursday, March 10th**, **2022**. There is also a final exam at the end of the semester at the time and location as scheduled by UTRGV. Both exams will be based on materials covered in lectures and assignments. Please do not plan to travel at the end of semester until the final exam is over.

All students must study the material assigned by the instructor and complete assignments. There will be two types of assignments in this course: homework and projects. Homework assignments are short-answer and essay problems that will help you understand and learn important concepts and methodologies in object-oriented programming (OOP) and the C# programming language while project assignments will help you practice and apply learned concepts and methodologies in OOP on actual problems. It is very important for you to do each assignment of both types seriously in order to achieve all the SLOs.

• <u>Homework assignments</u>: Typed submissions are recommended although scanned handwritten solutions are acceptable as long as they're written clearly and completely readable. The instructor cannot grade your

- solutions if they're unreadable. You must write/type clearly your name, student ID number and due date on the first page of your solution.
- <u>Project assignments</u>: You should compress all files in your project submission into one file (i.e., .zip, .rar, etc) and submit the compressed file through the submission link for the project provided in Blackboard.

No more than <u>two</u> assignment submissions that are late or do not meet other submission requirements as described above will be accepted for each student. In addition, no assignment submissions will be accepted regardless if the solutions to those assignments have been already posted or given in class, or if a majority of the submitted solutions have been graded and returned to students. All submitted assignments, homework and project, are subject to <u>oral defenses</u>, where students are required to explain to the instructor key steps and details of the submitted assignment solutions satisfactorily and demonstrate complete understanding of the submitted work. Unsatisfactory assignment defenses might lead to grades of relevant assignment problems or whole assignments voided at the instructor's discretion.

ATTENDANCE

Students are expected to attend all scheduled lectures in one of the three ways:

- o Attending the lecture in-person,
- o Attending the lecture online through Collaborate Ultra in Blackboard, or
- Watching the recordings of the lectures

Attendance of each lecture will be recorded through a signing sheet, Collaborate Ultra participation reports, or Panopto viewing reports depending how you attend the lecture. Please note that in order to receive attendance credit for a lecture you must stay through the whole duration of the in-person lecture or the Collaborate Ultra session if the lecture is held online, or watch the lecture recording for its full length by Saturday of the same week the recordings made available. Attendance counts towards your final grade for this course by default. No excuse other than officially documented cases allowable by the university policies, which are usually only for family or extreme health emergencies, will be accepted for absences. You are not required to attend class on days listed in the university calendar as major religious holy days (although I assume that you practice at most one religion). In addition, you're allowed two absences without excuses or grade penalties. Students have the option to be exempted from attendance of lectures, in which case the percentage weight of attendance will be distributed proportionally among other grading components. To activate this option, however, students must notify the instructor no later than **Friday, January 28th, 2022.**

Students not exempted from attendance of lectures may be dropped from the course for excessive absences. UTRGV's attendance policy excuses students from attending class if they are participating in officially sponsored university activities, such as athletics; have been provided such an accommodation by Student Accessibility Services (SAS); for observance of religious holy days; or for military service. Students should contact the instructor in advance of the excused absence and arrange to make up missed work or examinations.

MAKEUP POLICIES

I generally don't give makeup assignments except officially documented cases allowable by the university policies, which are usually only for family or extreme health emergencies. If you need a makeup work you must notify me ahead of time, or as soon as reasonably possible.

BLACKBOARD SUPPORT

If you need assistance with course technology at any time, please contact the <u>Center for Online Learning and Teaching</u> <u>Technology</u> (COLTT).

Campus:	Brownsville	Edinburg
Location:	Casa Bella (BCASA) 613	Education Complex (EEDUC) 2.202

Campus:	Brownsville	Edinburg
Phone:	956-882-6792	956-665-5327

Toll Free: 1-866-654-4555

Office Hours: Monday - Friday, 7:30 a.m. - 6:00 p.m.

Support Tickets Submit a Support Case via our Ask COLTT Portal

24/7 Blackboard Support

Need Blackboard assistance after hours? You can call our main office numbers, 956-882-6792 or 956-665-5327, to speak with a support representative.

USE OF LECTURE RECORDINGS

The use of classroom recordings is governed by the Federal Educational Rights and Privacy Act (FERPA), UTRGV's acceptable-use policy, and UTRGV HOP Policy STU 02-100 Student Conduct and Discipline. A recording of class sessions will be kept and stored by UTRGV, in accordance with FERPA and UTRGV policies. Your instructor will not share the recordings of your class activities outside of course participants, which include your fellow students, teaching assistants, or graduate assistants, and any guest faculty or community-based learning partners with whom we may engage during a class session. You may not share recordings outside of this course. Doing so may result in disciplinary action under UTRGV HOP Policy STU 02-100 Student Conduct and Discipline.

ACADEMIC INTEGRITY:

Members of the UTRGV community uphold the <u>Vaquero Honor Code</u>'s shared values of honesty, integrity and mutual respect in our interactions and relationships. In this regard, academic integrity is fundamental in our actions, as any act of dishonesty conflicts as much with academic achievement as with the values of honesty and integrity. Violations of academic integrity include, but are not limited to: cheating, plagiarism (including self-plagiarism), and collusion; submission for credit of any work or materials that are attributable in whole or in part to another person; taking an examination for another person; any act designed to give unfair advantage to a student; or the attempt to commit such acts (Board of Regents Rules and Regulations, STU 02-100, and UTRGV Academic Integrity Guidelines). All violations of Academic Integrity will be reported to Student Rights and Responsibilities through <u>Vaqueros Report It</u>.

Specifically for this course, a grade of 0 will be given to the cheated work if a cheating is caught for the first time for the involved student, and an F grade will be given for the whole course to any student who is caught for cheating for the second time. In the latter case the incident will be forwarded to the department chair and beyond if necessary.

INCOMPLETES AND COURSE WITHDRAWL

I will not give incomplete grades except for the rare cases dictated by the University and Department policy. It is the student's responsibility, not the instructor's, to withdraw from the course in a timely manner if doing poorly. No incomplete grades will be granted because of a wrong withdrawal process. Please obtain due dates to withdraw from the course and also please read and be aware of the formal procedures to withdraw. This information is available in the course schedule and the student affairs office.

UTRGV POLICY STATEMENTS

STUDENTS WITH DISABILITIES:

Students with a documented disability (physical, psychological, learning, or other disability which affects academic performance) who would like to receive reasonable academic accommodations should contact **Student Accessibility Services (SAS)** for additional information. In order for accommodation requests to be considered for approval, the student must apply using the <u>mySAS portal</u>. and is responsible for providing sufficient documentation of the disability to SAS. Students are required to participate in an interactive discussion, or an intake appointment, with SAS staff.

Accommodations may be requested at any time but are not retroactive, meaning they are valid once approved by SAS. Please contact SAS early in the semester/module for guidance. Students who experience a broken bone, severe injury, or undergo surgery may also be eligible for temporary accommodations.

Pregnancy, Pregnancy-related, and Parenting Accommodations

Title IX of the Education Amendments of 1972 prohibits sex discrimination, which includes discrimination based on pregnancy, marital status, or parental status. Students seeking accommodations related to pregnancy, pregnancy-related condition, or parenting (reasonably immediate postpartum period) should submit the request using the form found at https://www.utrgv.edu/pregnancyandparenting for review by **Student Accessibility Services.**

Student Accessibility Services:

Brownsville Campus: Student Accessibility Services is located in 1.107 in the Music and Learning Center building (BMSLC) and can be contacted by phone at (956) 882-7374 or via email at ability@utrgv.edu.

Edinburg Campus: Student Accessibility Services is located in 108 University Center (EUCTR) and can be contacted by phone at (956) 665-7005 or via email at ability@utrgv.edu.

MANDATORY COURSE EVALUATION PERIOD: Required on all syllabi. Do not modify.

Students are encouraged to complete an ONLINE evaluation of this course, accessed through your UTRGV account (http://my.utrgv.edu); you will be contacted through email with further instructions. Students who complete their evaluations will have priority access to their grades. Online evaluations will be available on or about:

Spring Module 1 (7 weeks) February 23 – March 1, 2022

Spring Regular Term 2022 April 15 – May 4, 2022 SpringModule 2 (7 weeks) April 20 – 26, 2022

SEXUAL MISCONDUCT and MANDATORY REPORTING: Required on all syllabi. Do not modify.

In accordance with UT System regulations, your instructor is a "Responsible Employee" for reporting purposes under Title IX regulations and so must report to the Office of Institutional Equity & Diversity (OIED@utrgv.edu) any instance, occurring during a student's time in college, of sexual misconduct, which includes sexual assault, stalking, dating violence, domestic violence, and sexual harassment, about which she/he becomes aware during this course through writing, discussion, or personal disclosure. More information can be found at www.utrgv.edu/equity, including confidential resources available on campus. The faculty and staff of UTRGV actively strive to provide a learning, working, and living environment that promotes personal integrity, civility, and mutual respect that is free from sexual misconduct, discrimination, and all forms of violence. If students, faculty, or staff would like confidential assistance, or have questions, they can contact OVAVP (Office for Victim Advocacy & Violence Prevention) at (956) 665-8287, (956) 882-8282, or <a href="https://www.ovenumerceduring-numerced

STUDENT SERVICES:

Students who demonstrate financial need have a variety of options when it comes to paying for college costs, such as scholarships, grants, loans and work-study. Students should visit the Student Services Center (U Central) for additional information. U Central is located in BMAIN 1.100 (Brownsville) or ESSBL 1.145 (Edinburg) or can be reached by email (ucentral@utrgv.edu) or telephone: (956) 882-4026. In addition to financial aid, U Central can assist students with registration and admissions.

Students seeking academic help in their studies can use university resources in addition to an instructor's office hours. University Resources include the Advising Center, Career Center, Counseling Center, Learning Center, and Writing Center. The centers provide services such as tutoring, writing help, counseling services, critical thinking, study skills, degree planning, and student employment. In addition, services such as the Food Pantry are also provided. Locations are listed below.

Center Name	Brownsville Campus	Edinburg Campus
Advising Center	BMAIN 1.400	EITTB 1.000
AcademicAdvising@utrgv.edu	(956) 665-7120	(956) 665-7120
Career Center	BINAB 1.105	ESTAC 2.101
CareerCenter@utrgv.edu	(956) 882-5627	(956) 665-2243
Counseling Center	BSTUN 2.10	EUCTR 109
Counseling@utrgv.edu	(956) 882-3897	(956) 665-2574
Mental Health Counseling and		
Related Services List		
Food Pantry	BCAVL 101 & 102	EUCTR 114
FoodPantry@utrgv.edu	(956) 882-7126	(956) 665-3663
Learning Center	BMSLC 2.118	ELCTR 100
<u>LearningCenter@utrgv.edu</u>	(956) 882-8208	(956) 665-2585
Writing Center	BLIBR 3.206	ESTAC 3.119
WC@utrgv.edu	(956) 882-7065	(956) 665-2538

CALENDAR OF ACTIVITIES:

Week Of	Lecture Topics	Asssignmentss and Exams
1/17/2022	Syllabus, Introduction to C#, .NET, and MS VS IDE	Assignment1
1/24/2022	C# Basics: Syntax, Variables, expressions, control flows, types, exceptions	Assignment 2
1/31/2022	Functions	Assignement 3
2/7/2022	OOP: Classes	Assignment 4
2/14/2022	OOP: interfaces and Subclasses	Assignment 5
2/21/2022	.NET Types	
2/28/2022	Files, streams, and Serialization	Assignment 6
3/7/2022	Midterm Review	Midterm Exam
3/14/2022	Working with Data Using Entity Core	
3/21/2022	Manipulating Data Using LINQ	Assignment 7
3/28/2022	Multitasking	Assignment 8
4/4/2022	Building Web Applications: Using ASP.NET	
4/11/2022	Building Web Applications: Model-View-Control Pattern	Assignmnt 9
4/18/2022	Building and Using Web Services	Assignment 10
4/25/2022	ТВА	
5/2/2022	Final Review	Final Exam

IMPORTANT DATES

Please note the following important dates according to the academic calendar of UTRGV, which can be found at https://my.utrgv.edu/home at the bottom of the screen, *prior to login*.

Spring Module 1

January 12 First day of classes.

January 12 Last day to add a class or register for Spring 2022 Module 1 classes.

February 22 Last day to drop a class or withdraw.

March 2 Final Exams (Term Ends)
March 4 Grades Due at 3 p.m.

Spring Regular Term

January 18 First day of classes.

January 23 Last day to add a class or register for Spring 2022 classes.

March 14-19 Spring Break. No classes.

April 11 Last day to drop a class or withdraw.

April 15-16 Easter Holiday. No classes. May 5 Study Day – NO classes

May 6-12 Final Exams

May 16 Grades Due at 3 p.m.

Spring Module 2

March 9 First day of classes.

March 9 Last day to add a class or register for Spring 2022 Module 2 classes.

April 19 Last day to drop a class or withdraw.

April 27 Final Exams (Term Ends)
April 29 Grades Due at 3 p.m.

DEAN OF STUDENTS RESOURCES:

The Dean of Students office assists students when they experience a challenge with an administrative process, unexpected situation such as an illness, accident, or family situation, and aids in resolving complaints. Additionally, the office facilitates student academic related requests for religious accommodations, support students formerly in foster care, helps to advocate on behalf of students and inform them about their rights and responsibilities, and serves as a resource and support for faculty and campus departments.

<u>Vaqueros Report It</u> allows students, staff and faculty a way to report concern about the well-being of a student, seek assistance in resolving a complaint, or report allegations of behaviors contrary to community standards or campus policies.

The Dean of Students can be reached by emailing dos@utrgv.edu, by logging into Virtual Office hours in which a representative is available Monday-Friday 9:00-11:00 a.m. and 1:00-4:00 p.m, or by visiting one of the following office locations: Cavalry (BCAVL) 204 or University Center (EUCTR 323). Phone: 956-665-2260.

Disclaimer This syllabus does not contain all regulations that relate to students. Contents in the syllabus may be changed by the instructor with advanced notice and/or agreement with the students. Any change will be kept to a minimum.