



Course number: CSCI 1370 (1170 lab) Computer Science I
SYLLABUS
Spring 2021

Revised Jan. 10th, 2021

Subject to any new Texas legislative mandate changes.

COURSE INFORMATION:

lecture time: 1370: Tues/Thurs 11:00 am - 12:15 pm **1170 lab:** Friday 10:45 am - 1:15 pm (TA will run the lab).

Lecture location: Zoom ID: 758 217 1203

Lab location: Zoom ID: 627 565 7106

Course Modality: Online Synchronous Courses (OSYNC)

INSTRUCTOR INFORMATION:

Instructor Name: Beiyu Lin

E-Mail: beiyu.lin@utrgv.edu ; **Website:** https://beiyulincs.github.io/teach/spring_21/cs1137.html

Office hours: Tues/Thurs 12:15 pm-1:30 pm, or by appointment

Teaching assistance information:

Rysul Kabir, e-mail: mdrysul.kabir01@utrgv.edu

TA's office hour: Wednesday: 1 pm to 3:30 pm

WELCOME & INTRODUCTION

Online Synchronous Courses: These courses will be delivered fully online. There will be a designated class meeting time for real-time instructor/student interaction, which will be conducted remotely via online platforms from the safety of your home. This real-time interaction may be supplemented by the digital presentation of course content. Your instructors will provide you with feedback on assigned work, communicate with you electronically, and be available to meet with you as defined on this syllabus.

COURSE DESCRIPTION, PREREQUISITES & MODE OF LEARNING

CSCI 1370 Computer Science I: An introduction to computer science. The fundamentals of a high-level programming language will be introduced. Methods of problem solving, techniques of algorithmic development and concepts of procedural and object-oriented programming will be emphasized. Societal and social issues related to computer engineering will be introduced.

- **Prerequisites:** Enrollment in or credit for CSCI 1101 or CMPE 1101, grade of "C" or better in MATH 1340 or placement in a higher-level math course.

- **Corequisite:** CSCI 1170.

CSCI 1170 Computer Science I Laboratory: The course includes hands-on instruction and laboratory exercises in developing programs written in a high-level object-oriented programming language applying the principles taught in the CSCI 1370 lecture course.

- **Corequisite:** CMPE 1370.

Homework Assignments:

The purpose of the homework assignments is to develop problem-solving and teamwork skills.

Programs will be graded on correctness, efficiency, quality of design, documentation and style. Late homework assignments will be accepted with a penalty of 10% if submitted within 24 hours after its deadline.

Students **MUST** work in teams to develop the solution for the problem. All programming assignments are expected to be the team's own work. Giving and receiving (from persons or web sites) major sections of code is considered cheating and will be dealt with on an individual basis (beginning with total loss of points followed by formal action). They are also encouraged to seek help with identifying syntax and run-time errors from SAs, lab consultants, or the instructor during office hours. The team must submit only one solution for each assignment (any of the members can do it). **BOTH** members of the team are equally responsible for the submission of that solution (if your teammate cannot submit it, then you must do it).

Lab Assignments:

The purpose of the lab assignments is to develop the students' programming skills by practicing with what they learn in lectures. Students **MUST** work individually to develop the solution for the problem. Giving and receiving (from persons or web sites) major sections of code is considered cheating and will be dealt with on an individual basis. The students are advised to work on them as soon as they become available so on the day of the lab they just "polish" the programs (if necessary, with help from SAs) during the labs to ensure that they comply with the specifications. Late lab assignments will be accepted with a penalty of 10% if submitted within 24 hours after its deadline.

The programs' specifications will be posted on Blackboard prior to the labs.

Textbook and Code Analysis Exercises:

The purpose of the textbook exercises is to make the students self test themselves the understanding of the foundations of the C++ programming language by completing the activities right after being introduced to a new concept. There will be textbook exercises for each chapter covered throughout the semester and their grade will count for the final grade. The students are strongly encouraged to go reading the book ahead of the lectures to be better prepared to understand what will be discussed in them.

The purpose of the code analysis exercises is to develop code analysis skills. The exercises will require the students to analyze short pieces of code in order to answer three questions. Their grade will count for the final grade. These exercises will be completed during the lab period.

All assignments (lab and homework) must be submitted using the tool provided by Blackboard to submit assignments (sorry but no email attachments). Textbook exercises must be completed on the book.

COVID-19 RESOURCES

Please visit the [UTRGV COVID-19 Website](https://www.utrgv.edu/coronavirus/index.htm) via the following link for the most up-to-date information and resources (<https://www.utrgv.edu/coronavirus/index.htm>). This includes information on self-screening questions, links to forms for travel and contact, etc.

Boilerplate language on self-screening and reporting is currently being developed.

Face Covering Protocol:

As part of the university's ongoing COVID-19 mitigation efforts to maintain a healthy environment for all members of our campus community, anyone entering a campus building must wear a face covering that covers the mouth and nose. The covering must be worn in all hallways, public spaces, research labs, teaching/computer labs, libraries, classrooms, automobiles with a passenger, stairwells, elevators and common areas, as well as office spaces. In office spaces, when social distancing of 6 feet is possible and maintained, face coverings may be removed. Face coverings also are required in outdoor settings when safe social distancing and gathering practices are not possible.

LEARNING OBJECTIVES/OUTCOMES FOR THE COURSE

Course Topics:

This course is an **introduction** to Computer Science and is taken as the first course for Computer Science and Computer Engineering majors and minors. It focuses on techniques of problems solving and algorithmic design and includes lab experiences in design and implementation of those algorithms in C++. Topics in C++ include:

data types, variables and assignment, interactive input/output statements, file input/output statements, selection and loop statements, functions, pointers, one- and two-dimensional arrays, simple sorting and searching algorithms, user-defined data types, structured data types, data abstraction and classes, Characters, strings and the string class.

Course Objectives:

After completing this course, the student should know:

Student Learning Outcomes	Program Student Learning Outcomes (ABET compliant)	Major Course Requirement/Major Assignment/Examination
a) How to analyze a problem and develop an appropriate algorithm to solve it.	1. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.	All homework and lab assignments. All tests. All exercises (except the essay).
b) How to implement algorithms by writing C++ code. c) How to compile and link that code into a working program. d) How to use testing and debugging strategies to identify and fix program faults.	2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.	All homework and lab assignments. All tests. All exercises (except the essay).
e) How to recognize ethical issues related to their discipline.		
f) How to work constructively with a partner to solve problems		
g) How programming language, libraries and development environment each impact the way programs are written. h) How different algorithms meet different requirements. i) How to modularize code for clarity, testing and reuse. j) How to evaluate, use and modify existing algorithms.	6. Apply computer science theory and software development fundamentals to produce computing-based solutions.	All homework and lab assignments. All tests. All exercises (except the essay).

LEARNING OBJECTIVES FOR CORE CURRICULUM REQUIREMENTS

This course does not satisfy any core curriculum requirement.

TEXTBOOK, TECHNOLOGY, AND/OR RESOURCE MATERIAL

We will be using the Zybooks CSCI/CMPE 1370: Engineering Computer Science I Spring 2021 online interactive textbook (\$58), which contains interactive examples and activities. This textbook is required as online assignments will be part of your course grade.

To subscribe:

1. Sign in or create an account at learn.zybooks.com

2. Enter zyBook code:

zyBook: CMPE 1370/CSCI 1370: Engineering Computer Science I

zyBook code: UTRGVCMPECS1370LinSpring2021

zyBook ISBN: 978-1-394-08973-4

Important: make sure you select the correct section number. If you choose an incorrect section (or no section at all) I will not be able to grade your submission.

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 webcam and a private place to take exams (see Grading Policies below)
- A place to work and a reliable computer (laptop or desktop)
 - A tablet would be very difficult for this class, and insufficient for the major
 - 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 [at the UTRGV bookstore \(https://link.utrgv.edu/campusstores-tech/\)](https://link.utrgv.edu/campusstores-tech/).

GRADING POLICIES

CSCI/CMPE 1370 and 1170 are co-requisite courses. The purpose of the lab is to increase your hands-on experience with the material, and to provide you with another avenue to demonstrate what you have learned. You will receive the same grade for both courses. That grade is calculated based on the total work performed in both CSCI 1370 and CSCI 1170.

4 programming Assignments	36%
4 Homework Assignments	28% (see LAB/HOMEWORK ASSIGNMENTS EVALUATION CRITERIA)
4 In class quizzes	10%
13 Labs Assignments	26% (see LAB/HOMEWORK ASSIGNMENTS EVALUATION CRITERIA)
Team Work Incentive	up to 5% (see LAB/HOMEWORK ASSIGNMENTS EVALUATION CRITERIA)

Total possible score (max):	105%

Important:

- Please read very carefully the content of pages 9 and 10 to understand how your final grade will be calculated.
- I DO NOT do extra credit so make sure you get good grades in tests and assignments in order to get a good final grade.
- You can use the grade calculator available from Miscellaneous in Blackboard to know what your current grade is at any moment during the semester once you have at least one grade from each of the components of the final grade.

Your final grade will be based on the following scale:

A: 90-100 B: 80-89 C: 70-79 D: 60-69 F: 0-59

Notice:

Your enrollment in this course requires that you use **Respondus Lockdown Browser** and **Respondus Monitor** for online assessment proctoring. LockDown Browser is a custom browser that locks down the testing environment within Blackboard and replaces regular browsers such as Chrome, Firefox, and Safari. Respondus Monitor requires you to have a webcam and microphone as it will record you while taking your assessment. **YOUR ACTIVITIES ARE RECORDED WHILE YOU ARE LOGGED INTO OR TAKING YOUR ASSESSMENT(S). THE RECORDINGS SERVE AS A PROCTOR AND WILL BE REVIEWED AND USED IN AN EFFORT TO MAINTAIN ACADEMIC INTEGRITY.**

You can find more detailed information on [Lockdown Browser and Monitor](#) at UTRGV.edu/online.

BLACKBOARD SUPPORT

If you need assistance with course technology at any time, please contact the [Center for Online Learning and Teaching Technology](#) (COLTT).

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

ATTENDANCE

I expect that you will attend class, be punctual, remain on task, and stay through the entire class meeting. You 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.

Other acceptable excuses include (but are not limited to) the death of an immediate family member, or an illness requiring a physician's attention.

Students should contact the instructor, if possible, in advance of the excused absence and arrange to make up missed work or examinations. If the absence was due to an emergency, the student should contact the instructor as soon as possible after the emergency has been resolved.

Completion of exams and assignments. You must take all exams and turn in all assignments on time. If you miss any of the work for the course, you must speak to me as soon as possible so that I can determine if I will allow you to make up the missed work. Depending on the excuse provided, make-up exams may result in automatic loss of points. All exams must be taken to be able to pass the course, missing anyone will result in an F as a final grade.

Lectures will be recorded. After the class, the lecture recording, and the examples discussed in it will be made available for the students to review them or to catch up in case of an absence.

Lectures, tests, and lab assignments will be done during the class and lab scheduled times. Homework assignments and textbook exercises will be done at the students' own time. All of them will have to be completed by the specified deadline.

The use of recordings will enable you to have access to class lectures, group discussions, etc. in the event you have to miss a synchronous or face to face class meeting due to illness or other extenuating circumstance. Our use of such technology 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 [Vaquero Honor Code](#)'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 [Vaqueros Report It](#).**

EXPECTATIONS

I am committed to quality teaching and to providing you a meaningful experience in this course, but learning is your responsibility so please do your part in order to receive the maximum benefit from the course.

For this class, I expect you to:

- Complete all assignments and submit them on time (this is very important for you!).
- Interact respectfully with me, the course assistants, and your classmates.

- Participate in class discussions and activities.
- Remain on task and focused during class.
- Access your Blackboard account frequently to get information on course policies, assignments, tests, grades, etc. All information posted on it will be assumed to be known by the student 24 hours later.
- Speak to me IMMEDIATELY at the first sign that you are having trouble with the class or if you miss assignments, so I can try to help you.

COMMUNICATION

It is UTRGV policy that all electronic communication related to university activity/business must use university systems. Thus, you **MUST** communicate with me through Blackboard Messages or (if Blackboard is not available) through your UTRGV e-mail account.

Whether you send a message in Blackboard or an e-mail through your UTRGV account, please ensure that all your messages have the following:

O Descriptive subject line.

O Your name, course number and section (if e-mailing from your UTRGV account), and a clear statement of your question or problem. If you send an attachment, please explain it.

O An e-mail is a relatively formal communication, so please ensure your language reflects that fact (be polite, avoid acronyms, use punctuation marks, capitalize, etc.). For example, fyi tina (For your information, this is not acceptable).

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 mySAS portal located at www.utrgv.edu/mySAS 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) are encouraged to apply to **Student Accessibility Services** using the following link: [Pregnancy Accommodations Request Form](http://www.utrgv.edu/pregnancy)
[https://www.utrgv.edu/pregnancy](http://www.utrgv.edu/pregnancy)

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

Students are required 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:

SEXUAL MISCONDUCT and MANDATORY REPORTING

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 OVAVP@utrgv.edu.

COURSE DROPS

According to UTRGV policy, students may drop any class without penalty earning a grade of DR (drop) until the official drop date. Following that date, students must be assigned a letter grade and can no longer drop the class. Students considering dropping the class should be aware of the “3-peat rule” and the “6-drop” rule so they can recognize how dropped classes may affect their academic success. The 6-drop rule refers to Texas law that dictates that undergraduate students may not drop more than six courses during their undergraduate career. Courses dropped at other Texas public higher education institutions will count toward the six-course drop limit. The 3-peat rule refers to additional fees charged to students who take the same class for the third time.

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: (888) 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 AcademicAdvising@utrgv.edu	BMAIN 1.400 (956) 665-7120	ESWKH 101A (956) 665-7120
Career Center CareerCenter@utrgv.edu	BINAB 1.105 (956) 882-5627	ESSBL 2.101 (956) 665-2243
Counseling Center Counseling@utrgv.edu Counseling and Related Services List	BSTUN 2.10 (956) 882-3897	EUCTR 109 (956) 665-2574
Food Pantry FoodPantry@utrgv.edu	BCAVL 101 & 102 (956) 882-7126	EUCTR 114 (956) 665-3663
Learning Center LearningCenter@utrgv.edu	BMSLC 2.118 (956) 882-8208	ELCTR 100 (956) 665-2585
Writing Center WC@utrgv.edu	BUBLB 3.206 (956) 882-7065	ESTAC 3.119 (956) 665-2538

CALENDAR OF ACTIVITIES

The UTRGV academic calendar can be found at <https://my.utrgv.edu/home> at the bottom of the screen, *prior to login*.

LAB/HOMEWORK ASSIGNMENTS EVALUATION CRITERIA

LAB (Individual work)

- 1) The program MUST follow STRICTLY the instructions provided. Failing to do so, will cost you points.
- 2) The student MUST be able to explain to the instructor or SA (Student Assistant) what he/she did.

HOMEWORK (Teamwork)

1) The students **MUST** work together for all homework assignments. The instructor **MUST** authorize any switching of team members.

2) It is expected that **BOTH** members of the team work together on **EVERY** assignment. The best way to do this is by each partner coming up with their own solutions and then discussing both of them to produce a final (best) one. **Both partners are equally responsible for the completion and submission of the assignment.**

Note: Partners are there to learn teamwork and motivate/help each other. The best way to learn something is by teaching it to somebody else but it is not expected that one partner must carry the other.

3) There will be a **single submission per team** for each assignment and its grade will be assigned to **BOTH** teammates if **BOTH have contributed** to the final solution. **Two individual solutions** for a homework assignment **will not be accepted**. Teams/individuals can share ideas on the general solution of a problem but cannot share actual code. If this situation is detected, **BOTH** teams/individuals (the one given the code as well as the one receiving it) will get 0 (ZERO) points and a warning from the instructor. A second instance of copying will be reported to the Dean of Students.

Students/teams can provide **LIMITED** help to other classmates/teams. Sharing (full or partial) sections of code is **NOT** allowed.

Examples of help that can be provided are:

- a) Pinpointing an error such as a missing semicolon at the end of the statement.
- b) Mentioning a missing declaration of a variable or named constant.
- c) Describing the wrong use of data types in an expression.
- d) Discussing the general type of structure to be used in the solution (when allowed)

If you have any doubts, consult with the instructor.

ASSESSMENT PROGRAMS

There will be, in every test, programs assessing **INDIVIDUALLY** what you have learned from homework and lab assignments. Thus, it is important that you and your partner clearly understand what was done in every program submitted. These programs will require you to do something similar to what you did for your assignments. Their grade (AG: Assessment Grade) will range from 0.0 to 1.0 and will be used to calculate your final grade according the formula shown below.

GRADING CRITERIA

The following general criteria will be used to grade homework and lab assignments:

- 1) Missing or too few comments in the source program: -5 points.
- 2) Missing source files (.cpp): -100% of what the program is worth.
- 3) Non-working programs (do not compile or do not do what are supposed to do): -100% of what the program is worth.
- 4) Missing algorithm: -10 points.
- 5) Other errors such as not checking for problems when opening files, not using the right type of variable, logical errors, using the wrong type of structure, etc.: from -5 to -10 points depending on the severity of the mistake.
- 6) Warnings generated by the compiler: -5 points.
- 7) Late submission: -10 points.

These general criteria may be modified under particular circumstances. As the semester progresses, more criteria will eventually be added to the above.

Your final grade will be calculated using the following formula:

$$FG = TGA*.36 + HGA*.28*OAGA + LGA*.30*OAGA + EA*.06 + 5*OAGA*PAGA$$

FG: Final Grade

TGA: Tests Grade Average (0-100)

HGA: Homework Grade Average (0-100)

LGA: Labs Grade Average (0-100)

OAGA: Own Assessment Grade Average (0.0-1.0)

PAGA: Partner Assessment Grade Average (0.0-1.0)

EA: Exercises Average (0-100)

The last term in the formula ($5*OAGA*PAGA$) can **add** up to 5 points to your final grade and it will depend on yours and your partner's assessment grades in tests. It is called **Teamwork Incentive**. This component can only boost your final grade, never decrease it (in the worst-case scenario it may be equal to zero and so there will be no contribution from teamwork).

Notice your homework and lab assignments components will be affected by your **own** assessment grade in tests.