COLLEGE OF ENGINEERING
Department of Computer Science & Engineering

Syllabus

CSCE 1010 – Discovering Computer Science

Sections 006, 321, 322, 323

Fall 2025

The official location of this document is on the course's Canvas page.

This is a face-to-face class. Attendance is required in both the course and the corresponding lab.

I (the instructor) reserve the right to modify course policies, the course calendar, assignment or project point values, and due dates.

1 Instruction Team

- Instructor:
  Dr. Gergely Záruba
  Professor and Department Chair
  Gergely.Zaruba@unt.edu
  Office: F203 during student hours (F201D otherwise)
  Student Hours: Tuesdays and Thursdays 1pm-2pm
  If you need to meet via zoom, please email me.

- Laboratory supervisor and Teaching Assistant:
  Ms. Poulomi Guha
  PoulomiGuha@my.unt.edu
  Student hours and location: TBA
  Zoom meeting ID:

- Instructional Assistant:
  Jayanth Gajjala
  JayanthGajjala@my.unt.edu
  Student hours and location: TBA
  Zoom meeting ID:

2 Course Description, Structure, and Objectives

2.1 Catalog description

CSCE 1010 - Discovering Computer Science 3 hours (3;0)
A breadth-first introduction to computer science based upon 7 "Big Ideas," namely: 1) computing is a creative activity, 2) abstraction reduces information and detail to facilitate focus on relevant concepts, 3) data and information facilitate the creation of knowledge, 4) algorithms are used to develop and express solutions to computational problems, 5) programming enables problem solving, human expression and creation of knowledge, 6) the Internet pervades modern computing and 7) computing has global impacts.
Prerequisites: none

2.2 Course Learning Outcomes:

Students successfully completing this course will have gained a solid understanding of basic concepts in programming and how to split up and modularize larger programming problems. Students will be able to:

- Demonstrate how computing can be a creative activity by designing and developing original computational artifacts to express ideas and solve problems.
- Apply abstraction to reduce complexity in digital systems and create models that highlight relevant concepts and information.
- Gather, analyze, and interpret data to transform information into meaningful knowledge and insights.
- Design, implement, and evaluate algorithms to solve computational problems efficiently and clearly.
- Develop and test computer programs to facilitate problem solving, human expression, and knowledge creation.
- Explain how the Internet functions and analyze its role in modern computing, including important issues such as cybersecurity and data sharing.
- Evaluate the global impact of computing on society, considering both beneficial innovations and potential challenges related to technology's influence on daily life and culture.

2.3 Course Learning Objectives

Course Learning objectives are in line with the student outcomes of our ABET CS program accreditation, and such are:

- Students will use abstraction to reduce information and detail in order to facilitate focus on relevant topics. In software this typically occurs both in designing algorithms and creating modules within their programs.
- Students will access and summarize available data to create information and evaluate information to create knowledge.
- Students will develop, evaluate and use algorithms in defining solutions to computational problems.
- Students will create software that enables problem solving, human expression and creation of knowledge.
- Students will both describe how the internet pervades modern computing and make effective and ethical use of the internet in solving problems.
- Students will recognize, discuss and describe the global impacts of computing.

3 Required/Recommended Materials

Required Textbook:

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  - ¡~Gttp htij?ZS YHXHJ6565_fwzgfKfqj757:
  - ¡~Gttp NXGS ?><>2=27582>>=<2<
  - XJJ XYJUX GJQT\

Notes:

- The only textbook we will be using is the Zybook. To be able to access your Zybook Readings, **please follow these steps:**
  1. Click on any zyBook Reading assignment under the Zybook Readings link in Canvas (Do NOT go to the zyBooks website and create a new account)
  2. Finish the Reading assignment and
  3. After completing it, exit Zybook and return to Canvas to receive your grade for each assignment.
- A subscription is $89. Students may begin subscribing on Aug 04, 2025 and the cutoff to subscribe is Nov 27, 2025. Subscriptions will last until Dec 26, 2025.

Additional reading and supporting materials:

- Links to additional reading and supporting materials will be posted on Canvas. These materials will come from free resources.

This course has digital components. To fully participate in this class, students will need internet access to reference content on the Canvas Learning Management System and the proper Zybook. If circumstances change, you will be informed of other technical

needs to access course content. Information on how to be successful in a digital learning environment can be found at Learn Anywhere (https://online.unt.edu/learn).

4 How to Succeed in this Course

4.1 Communication preferences

- Communication through **Canvas is highly preferred**
- If for a noteworthy reason you cannot send your question through Canvas, then you can reach me at Gergely.Zaruba@unt.edu
- I hold student hours (see above) for students to come and see me with any questions. You will hopefully find me an approachable person; my student hours are there to serve you.
- I will only respond to emails coming from students' official UNT email to that email (or through Canvas).
- I will do my best to respond within two business days (while I may, please do not expect me to respond over weekends or holidays). During busy times, my inbox becomes rather full, so if you contact me and do not receive a response within two business days, please send a follow up email.
- Make sure to list the course & section number in the subject line in all e-mail communications and put your student number in your email. (It is a best practice to set up a signature on your UNT email with your student number). I reserve the right not to reply to emails lacking such information.

4.2 Supporting Your Success and Creating an Inclusive Learning Environment

I truly appreciate the diverse perspectives each of you brings to our campus community. Let's work together to build a classroom culture where open communication, mutual respect, and a genuine sense of belonging are at the center of everything we do. Our discussions should always remain respectful and thoughtful. Healthy disagreements and debates are encouraged, but personal attacks are never okay. My goal is for this to be a safe, welcoming space for everyone. If at any point it doesn't feel that way, please feel free to stop by my office and share your concerns. We're all here to learn and grow together.

5 Course Requirements/Schedule

5.1 Important Dates

- The Official UNT Fall 2025 academic calendar can be found at: https://registrar.unt.edu/registration/fall-academic-calendar.html
  Some excerpts:
  Last Day to Add a Class Section Aug 22
  Labor Day - No Classes Sept 1
  Last day to Drop without a Grade of W Begins Aug 29
  Thanksgiving Break Nov 24- Nov 30

The course schedule is tentative and is subject to change. I (instructor) reserve the right to change the course as needed, specifically (though not limited to) topics, due dates, and assignment/assessment items. Any changes will be done after careful consideration for class learning.

Module Lecture & Attendance Schedule	**Topics covered** **Tue & Thu 2:30 pm- 3:50** **DP B185**	**Assignments Due dates** Sunday, 11:59 pm
Week 1 8/19 and 8/21 due: 8/24	Module 'Start Here' Course Introduction	Sun 8/24 *Introduce yourself- Collage about you* Quiz- Academic Integrity Form & post your groups. ICA- Opinion Essay-8/20
Week 2 8/26 and 8/28 due: 8/31	Module 0 Critical Thinking & Problem Solving Start Abstraction	Sun 8/31 Zybook Reading- Critical Thinking SNAP Lab-1- intro to programming ICA- Problem Solving 8/27
Week 3 9/2 and 9/4 due: 9/7	Module 1 **Sept 1 – Labor Day- No classes** Abstraction	Sun 9/7 SNAP Lab-2 Contact List Zybook Reading- Abstraction ICA- Binary in Action -9/3
Week 4 9/9 and 9/11 due: 9/14	Module 2 Algorithm & Coding	Sun 9/14 ICA- Algorithm 9/10 Zybook Reading- Algo

Week 5 9/16 and 9/18 due: 9/21	Module 3 (A) Intro. to programming Python	Sun 9/21 Zybook Reading: Intro Programming 1 ICA- Practice Python 1 SNAP Lab 3- Variables
Week 6 9/23 and 9/25 due: 9/28	Module 3 (B) Intro. to programming2 Python	Sun 9/28 Zybook Reading: Intro to Programming2 ICA-Practice Python 2 **SNAP Lab 4 - Loops & Math Operator**
Week 7 9/30 and 10/2 due: 10/5	Module 4 Privacy & Security	Sun 10/5 ICA- Cryptography- Encryption-10/1 Zybook Reading- Privacy & Security
Week 8 10/7 and 10/9 due: 10/12	Module 5 (A) Internet & Networks Fundamentals 1	Sun 10/12 Zybook Reading- Internet & Network ICA- build a network 10/8
Week 9 10/14 and 10/6 due: 10/19	Module 5 (B) Internet & Networks Fundamentals 2 Start Module 6-AI	Sun 10/19 Zybook Reading- Cryptography ICA- Cryptography & Network 10/15
Week 10 10/21 and 10/23 due: 10/26	10/21: Module 6 AI **10/23: Midterm Exam**	Sun 10/26 Zybook Reading- AI ICA -AI 10/22
Week 11 10/28 and 10/30 due: 11/2	Module 7 (A) Data Management & SQL Essentials 1 Practice SQL	Sun 10/02 Zybook Reading- Data Management Work on- ICA build your DB
Week 12 11/4 and 11/6 due: 11/9	Module 7 (B) Data Management & SQL Essentials 2	Sun 11/09 Due- ICA- build your DB 11/5
Week 13 11/11 and 11/13 due: 11/16	Module 8 Computing Hardware	Sun 11/16 ICA- Build your own computer 11/12 Zybook Reading- Computing Hardware

Week 14 11/18 and 11/20	**Group Presentation**	Sun 11/23
Week 15	**FALL Break (Thanksgiving)**	**University Closed** **No Assignments** **Enjoy!**
Week 16 12/2 and 12/4 due: 12/4 **Last Class Meeting: 12/4**	**Group Presentations**	**Thursday 12/4** **Submit Project Presentations** **Last day for all submissions** Extra credit- SDLC
Week 17 **12/9/2025**	**Final Exam: 1:30pm-3:30pm** **Tuesday, December 9**	

6 Assessing Your Work

6.1 Grading Items Turnaround Time

The grades for the labs/assignments/projects, quizzes and exams will be available 10 business days after the due date.

6.2 Assignments & Exam Policy

All assignments & exams **MUST be submitted through Canvas** by the deadline specified in the syllabus & the course calendar. Email submissions will NOT be accepted. If for some reason you have not been able to submit an assignment by the deadline, you have 24 hours to submit your work with a 20% penalty.

All work turned in for this class must meet the style and submission guidelines: Name your assignment with file name convention: Course#_assignment#_UNTEmailID.doc (Example: CSE1010_lab1_jdow.doc).
Two exams will be given: Mid-term & Final exam. The date and time of the tests are shown in the weekly course schedule Failure to notify me prior to the scheduled time of

approved inability to do the exams will produce an automatic zero for the exam. NO makeup test allowed except for emergencies with proof.
Exams will be proctored and violators of rules will be asked to leave the room.

6.3 Grading Guidelines – Weight Distribution and Scale

ICA- In-Class Activity	25%
Labs	15%
Zybook Readings	20%
2 Exams	20%
Group Project & Final presentation	20%
Total	**100%**

Grading Scale:
90% - 100% A
80% - 89% B
70% - 79% C
60% - 69% D
0% - 59% E

6.4 Generative AI Use – Limited Use

Throughout the semester, you will or may use specific Generative AI (GenAI) tools for certain assignments, with guidance on responsible use. These assignments help build ethical resilience and GenAI literacy, preparing you for careers in a GenAI-oriented workforce.
I use GenAI to, e.g., enhance materials, streamline tasks, generate prompts, create scenarios, draft syllabi, build study guides, and potentially to analyze performance. If you need me, I can discuss how I use GenAI, and I expect the same from you. In accordance with the UNT Honor Code, unauthorized use of GenAI tools is prohibited. Using GenAI content without proper credit or substituting your own work with GenAI undermines the learning process and violates academic integrity. If you're unsure whether something is allowed, please seek clarification.

7 Attendance and Participation

This is both for course sessions and labs:

Research has shown that students who attend class are more likely to be successful. You should attend every class unless you have a university excused absence such as active military service, a religious holy day, or an official university function as stated in the Student Attendance and Authorized Absences Policy (PDF) (https://policy.unt.edu/policy/06-039). If you cannot attend a class due to an emergency, please let me know. Your safety and well-being are important.

Being punctual indicates our respect for others. Please arrive before class begins to find a seat, prepare your materials, and connect with your peers. The beginning of class is especially critical—just like the beginning of a movie or book. Being late to class is sometimes inevitable. If you are late, know that you are welcome to join the class, but please do so without distracting others. More than two instances of tardiness will result in an absence from class.

8 Academic Integrity

Students taking this course implicitly agree to uphold the UNT honor code:
"I commit myself to honor, integrity, and responsibility as a student representing the University of North Texas community. I understand and pledge to uphold academic integrity as set forth by UNT Student Academic Integrity Policy, 06.003 (https://policy.unt.edu/policy/06-003). I affirm that the work I submit will always be my own, and the support I provide and receive will always be honorable."

It is highly important that you are familiar with the University's academic integrity policy and the CSE department's guidelines on academic integrity:

- UNT Academic Integrity Policy (PDF) (https://policy.unt.edu/policy/06-003)
- CSE Academic Integrity Guidelines: https://engineering.unt.edu/cse/students/resources/academic-integrity.html

9 Reasonable Accommodations

The University of North Texas makes reasonable accommodations for students with disabilities. To request accommodations, you must first register with the Office of Disability Access (ODA) by completing an application for services and providing documentation to verify your eligibility each semester. Once your eligibility is confirmed, you may request your letter of accommodation. ODA will then email your faculty a letter of reasonable accommodation, initiating a private discussion about your specific needs in the course.

You can request accommodations at any time, but it's important to provide ODA notice to your faculty as early as possible in the semester to avoid delays in implementation. Keep in mind that you must obtain a new letter of accommodation for each semester and meet with each faculty member before accommodations can be implemented in each class. You are strongly encouraged to meet with faculty regarding your accommodations during office hours or by appointment. Faculty have the authority to ask you to discuss your letter during their designated office hours to protect your privacy. For more information and to access resources that can support your needs, refer to the Office of Disability Access website (https://studentaffairs.unt.edu/office-disability-access).

10 Academic Success Resources

UNT strives to offer a high-quality education in a supportive environment where you can learn, grow, and thrive. As a faculty member, I am committed to supporting you, and I want to remind you that UNT offers a range of mental health and wellness services to help maintain balance and well-being. Utilizing these resources is a proactive way to support your academic and personal success. To explore campus resources designed to support you, check out *mental health services* (*https://clear.unt.edu/student-support-services-policies*), visit *unt.edu/success*, and explore *unt.edu/wellness*. To get all your enrollment and student financial-related questions answered, go to *scrappysays.unt.edu*.

11 Safety Procedures and Guidelines

While working in laboratory sessions, students enrolled in CSCE1010 are required to follow proper safety procedures and guidelines in all activities requiring lifting, climbing, walking on slippery surfaces, using equipment and tools, handling chemical solutions and hot and cold products. Students should be aware that UNT is not liable for injuries incurred while students are participating in class activities. All students are encouraged to secure adequate insurance coverage in the event of accidental injury. Students who do not have insurance coverage should consider obtaining Student Health Insurance. Brochures for student insurance are available in the UNT Student Health and Wellness Center. Students who are injured during class activities may seek medical attention at the Student Health and Wellness Center at rates that are reduced compared to other medical facilities. If students have an insurance plan other than Student Health Insurance at UNT, they should be sure that the plan covers treatment at this facility. If students choose not to go to the UNT Student Health and Wellness Center, they may be transported to an emergency room at a local hospital. Students are responsible for expenses incurred there.

12 Other Guidelines

12.1 Eagle Alert

Students will be notified by Eagle Alert if there is a campus closing that impact this class. Please see the Campus Closures Policy (https://policy.unt.edu/policy/15-006).

12.2 SPOT

The Student Perception of Teaching (SPOT) survey is a requirement for all organized undergraduate classes at UNT. This short survey will be made available to you at the end of the semester, providing you a chance to comment on how this class is taught. This feedback is anonymous. I am very interested in the feedback I get from students, as I work to continually improve my teaching. I consider SPOT to be an important part of your participation in this class.

12.3 UNT helpdesk

Student Help Desk that you can contact for help with Canvas or other technology issues.

- UNT Help Desk: UNT Student Help Desk site http://www.unt.edu/helpdesk/index.htm)
- Email: helpdesk@unt.edu
- Phone: 940-565-2324
- For additional support, you may visit Canvas Technical Help https://community.canvaslms.com/docs/DOC-10554-4212710328