

Tennessee Tech University

Computer Science

CSC 4040-001 Undergraduate Computing Research Experience

M, 2:30 – 3:15, PRSC 414, 3 Credit Hours, Fall 2022

Instructor Information

Instructor's Name: Doug Talbert

Offices: BRUN 234/PRSC 414

Telephone Number: 931-372-6178

Campus Email: dtalbert@tntech.edu (preferred method of contact)

Office Hours: Wednesdays 9:00 – 11:00; Thursdays 3:30 – 4:30; other times available by appointment

Course Information

Prerequisites: C or better in CSC 3040 and CSC 3220 and consent of instructor

Texts and References

DengAI: Predicting Disease Spread: <https://www.drivendata.org/competitions/44/dengai-predicting-disease-spread/>

Course Welcome and Description

This particular section of the course is specifically designed for CS students in the Data Science concentration. The overall goal is to provide the students with a real-world experience applying previously acquired data science skills.

Course Objectives/Student Learning Outcomes

Equip students to apply industry-standard, data science principles to a data science problem.

Develop written and oral communication skills in students that are necessary to function effectively in the profession and society.

Ability to apply knowledge of data science in the field of computer science.

Ability to apply fundamental and advanced concepts of data science.

Ability to apply critical thinking skills to analyze and evaluate potential data science solutions.

Ability to convey technical data science material through written materials.

Experience with how data science knowledge is applied in advanced areas of the field.

Major Teaching Methods

Independent study.

Special Instructional Platform/Materials: None

Course Schedule

8/22: Kickoff meeting

9/5: Research plan

10/3: Initial notebook

10/31: Updated notebook

11/28: Final notebook and report

TBD: DSL presentation

Grading and Evaluation Procedures

Research Plan (three different approaches) 10%

Competition Notebook 70%

Initial Notebook 15%

Updated Notebook 25%

Final Notebook, Report 30%

DSL Presentation: 10%

Peer Evaluation 10%

Grading Scale

Letter Grade	Grade Range
A	90-100
B	80-89
C	70-79
D	60-69
F	59 and below

Course Policies

Student Academic Misconduct Policy

Maintaining high standards of academic integrity in every class is critical to the reputation of Tennessee Tech, its students, alumni, and the employers of Tennessee Tech graduates. The student academic misconduct policy describes the definitions of academic misconduct and policies and procedures for addressing academic misconduct at Tennessee Tech. For details, view Tennessee Tech's policy 217 – [student academic misconduct at policy central](#).

Attendance Policy

Students who are unable to attend class for an extended period of time due to an emergency/extenuating circumstance (i.e., medical illness, hospitalization, death in the family/bereavement, military or legal obligation), may contact the Office of the Vice President for Student Affairs at studentaffairs@tnitech.edu to request an absence notification.

Class Participation

Attendance at each class is expected, as is participation in class discussion. Regular homework assignment are designed to help students be prepared to engage in class discussions. It is the responsibility of the student to obtain notes from another student if a class is missed. If a student has a university activity that would require missing a class or classes, that student should contact me well in advance to make some accommodations

Assignments and Related Policy

Material covered on the exams will be based on readings, assignments, and class lectures/discussions. Make-up exams and labs MAY be arranged (at the discretion of the instructor) if a student notifies the instructor IN ADVANCE of the missed exam. The instructor's decision is final.

Disability Accommodation

Students with a disability requiring accommodations should contact the accessible education center (AEC). An accommodation request (AR) should be completed as soon as possible, preferably by the end of the first week of the course. The AEC is located in the Roaden University Center, room 112; phone 931-372-6119. For details, view Tennessee Tech's policy 340 – [services for students with disabilities at policy central](#).

Additional Resources

Technical Help

If you are experiencing technical problems, visit the [myTech IT Helpdesk](#) for assistance.

If you are having trouble with one of the instructional technologies (i.e. Zoom, Teams, Qualtrics, Respondus, or any technology listed [here](#)) visit the [Center for Innovation in Teaching and Learning](#) (CITL) website or call 931-372-3675 for assistance.

For accessibility information and statements for our instructional technologies, visit the [CITL's Learner Success Resource page](#).

Tutoring

The university provides free tutoring to all Tennessee Tech students. Tutoring is available for any class or subject, as well as writing, test prep, study skills, and resume support. Appointments are scheduled, so contact the [Learning Center website](#) for more information.

Health and Wellness

Counseling Center

The Counseling Center offers brief, short-term, solution-focused therapeutic interventions for Tennessee Tech University students. The staff of the Counseling Center is available to assist students with their personal and social concerns in hopes of helping them achieve satisfying educational and life experiences. To learn more or schedule an appointment, visit the [Counseling Center website](#).

Health Services

Health Services offers high-quality, affordable care that is accessible and promotes the health and wellness of our Tennessee Tech community. Visit the [Health Services](#) website to learn more.

Pandemic Protocols

Each student must take personal responsibility for knowing and following any University protocol related to pandemics and other public health events. Students are expected to follow all directives published by Tennessee Tech on its official webpage. As conditions related to the COVID-19 pandemic change, the University's COVID-19 protocols are also likely to change. Students are expected to monitor the University's official webpage to stay up to date on public health protocols.