## TENNESSEE TECH UNIVERSITY

### **COMPUTER SCIENCE**

# CSC 2310-101/102 OBJECT-ORIENTED PROGRAMMING AND DESIGN LABORATORY

01.16-04.28, 8-9:20 T/2:30-3:50 F, BRUN/CLEM 406, 0.0 CREDIT HOURS, Spring 2018

INSTRUCTOR INFORMATION

Instructor's Name: Martha Kosa Telephone Number: (931)372-3579

Email: mjkosa@tntech.edu

Office: Bruner 240

Office Hours: Refer to the schedule on my webpage (http://www.csc.tntech.edu/~mjkosa/).

TA 1: Niraj Rajbhandari (nrajbhand42@students.tntech.edu)

Office Hours: Mondays 12 p.m. – 2 p.m., Tuesdays 12 p.m. – 2 p.m.

TA 2: Anshu Bhattarai (abhattara42@students.tntech.edu)

Office Hours: Wednesdays 11 a.m. – 1 p.m., Thursdays 12 p.m. – 2 p.m.

Supplemental TA: Nathan Martindale (namartinda42@students.tntech.edu)

Office Hours: Tuesdays 9-11:30, Thursdays 8-11:30.

Note: Nathan is officially assigned to CSC 2700, so CSC 2700 students will have priority.

#### The TA office is Bruner 405.

**COURSE INFORMATION** 

PREREQUISITES (IF APPLICABLE)

C or better in CSC 1310 or both of CSC 2110 and CSC 2111.

**COURSE DESCRIPTION** 

A series of weekly laboratory exercises for developing proficiency in object-oriented programming and design.

COURSE OBJECTIVES/STUDENT LEARNING OUTCOMES

To gain technical knowledge of object-oriented programming techniques.

To acquire the ability to critically evaluate when and how to use (and when to avoid) the various object-oriented techniques.

To gain knowledge of current best practices for designing and implementing elegant software using object-oriented programming techniques.

To apply the above objectives in writing and testing complete, multi-class programs.

#### MAJOR TEACHING METHODS

(e.g. lectures, labs, demonstrations, discussion, reading, or written assignments, etc.)

Closed Laboratory w/ Weekly Programming Exercises

SPECIAL INSTRUCTIONAL PLATFORM/MATERIALS iLearn and a Laptop are required

#### TOPICS TO BE COVERED:

- 1.Installation
- 2. Using Objects
- 3. Composition
- 4.Generics
- 5.JUnit/Ant
- 6.<u>Inheritance</u>
- 7. State Design Pattern
- 8.Exceptions/Assertions
- 9.Javadoc and Sorting
- 10.Command Design Pattern
- 11. Strategy Design Pattern
- 12. Artificial Intelligence
- 13. Save and Load
- 14. Network

#### **TEXTS AND REFERENCES:**

#### Required:

None.

#### **GRADING AND EVALUATION PROCEDURES:**

#### **GRADING SCALE**

Letter Grade	Grade Range
A (95)	13.25-14.00
B (85)	11.00-13.00
C (75)	8.50-10.75

Letter Grade	Grade Range
D (65)	4.50-8.25
F (0)	4.25 and below

Your grade in lab counts for 10% of your grade in the lecture.

A 14.00 lab grade will translate to a 100 for the lab component of the lecture grade.

#### **Course Policies**

#### STUDENT ACADEMIC MISCONDUCT POLICY

Maintaining high standards of academic integrity in every class at Tennessee Tech is critical to the reputation of Tennessee Tech, its students, alumni, and the employers of Tennessee Tech graduates. The Student Misconduct Policy describes the definitions of academic misconduct and policies and procedures for addressing Academic Misconduct at Tennessee Tech. For details, view the Tennessee Tech's Policy 217 - Student Academic Misconduct at Policy Central.

#### **ATTENDANCE POLICY:**

You are expected to attend every class. You are responsible for all assignments and material covered during all class meetings whether you are present or not. Makeup labs will not be accepted without proper documentation for an excused absence.

ASSIGNMENTS AND RELATED POLICY:

#### Lab Guidelines

You must be present for every lab and seriously work on the lab during the entire class time in order to pass. I will close the door to the lab after I discuss the lab and take roll and you will not be allowed to hand in a lab if you are not already present for the lab.

You are expected to have read the **entire** lab **before** coming to the lab and to have reviewed the relevant material from lecture used in the lab.

You are **required** to have a partner for each lab (randomly assigned). You are **required** to communicate with your partner in designing and implementing a solution for the lab.

If you complete the lab before the class ends, demonstrate the lab for me or the TA. If your lab works correctly, **upload your lab to the drop box as discussed next** and then you may leave. **This drop box submission will be the version that is graded**.

If you cannot complete the lab during the scheduled class time, you may continue to work on the lab outside of class. You may receive as much help as you need from myself and/or the TA(s). To hand in a lab, you will simply upload to ilearn the url to your Bitbucket repository. From there I will use the download button to obtain your lab. This means that you are required to use Git and Bitbucket for every lab. Name the repository for each lab CSC2310-XX where XX is the number of the lab (i.e. the second lab would be CSC2310-02). You will have until **Friday at 3:30 PM (Section 101)/Tuesday at 3:30 PM (Section 102)** to complete the lab (the drop box closes at

4:00 PM). Double check that your upload was successful! This has been a problem in the past. Also, make sure that you give the TA's (Anshu and Niraj) and me read permission on your repository. You only need to hand in the lab once for you and your partner.

#### **Grading Policy**

Interpreting your ilearn grade (there is a limited amount of time to contest a given lab grade):

- A: lab completed with no issues (1.00 points)
- B: lab completed with a few minor issues (0.75 points)
- C: lab completed with one major issue (0.50 points)
- D: lab not completed or a few major issues (0.25 points)
- F: lab not attended or not working with partner (0.00 points)

if you have 2 or more Fs, you cannot pass lab

#### CLASS PLAN BY WEEKS OR DAYS

In the  $i^{th}$  week of the semester (where  $1 \le i \le 14$ ), the  $i^{th}$  topic in the Topics to Be Covered section above will be covered.

#### **DISABILITY ACCOMMODATION**

Students with a disability requiring accommodations should contact the Office of Disability Services (ODS). An Accommodation Request (AR) should be completed as soon as possible, preferably by the end of the first week of the course. The ODS is located in the Roaden University Center, Room 112; phone 372-6119. For details, view the Tennessee Tech's Policy 340 - Services for Students with Disabilities at Policy Central.