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Department of Computer and Information Sciences  
  
Spring 2024  
COSC 236 — Introduction to Computer Science I

**Instructor:**

Dr. Jeba Rezwana

Email: [jrezwana@towson.edu](http://jrezwana@towson.edu)

Office: YR442

Office hours: Monday 2:30 pm – 4 pm and by appointment

Research Interests: Human-Computer Interaction, Human-AI Co-Creation, Interaction Design, Human-Centered Ethical AI

**TA:**

Rahanatu Suleiman

Email: [rsuleim1@students.towson.edu](http://rsuleim1@students.towson.edu)

Office hours: To be announced.

## Time and Location

|  |  |  |  |
| --- | --- | --- | --- |
| DAY | TIME | LOCATION | NOTE |
| Monday | 12:30 PM – 1:45 PM | YR204 | Lecture |
| Tuesday | 1:00 PM - 2:50 PM | YR222 | Lab |
| Wednesday | 12:30 PM – 1:45 PM | YR204 | Lecture |

**Required Textbooks:**

[*Building Java Programs: A Back-to-Basics Approach*, by Stuart Reges and Marty Stepp, Pearson*, 5th Edition*](https://www.buildingjavaprograms.com/)

Edition: 5th addition [2020]. ISBN-13: 9780135471944

Publisher: [www.pearson.com](http://www.pearson.com)

**Important Dates**

* Last day to ADD/DROP: **February 6**
* Last day to WITHDRAW: **April 8**

**Prerequisites:** COSC 175 (or equivalent).

**Objective:**

This course introduces computer science through problem solving, algorithm development, and computer programming. Selected topics in computer science are introduced through programming projects using the Java programming language.

We will use “**JGrasp**” Java Development Environment.

**Learning Objectives:**

By the completion of the course, you should be able to:

• Develop and debug programs.

• Understand and apply structured programming using Java.

• Understand the fundamentals of Objected oriented programming.

• Understand the security requirement during the lifecycle of a software design

• Identify common coding errors that yield to insecure programs.

## Primary Topics

* Basic notions on computer organization - operating systems, programming languages, basic computer architecture.
* Java primitive data types, operators, and expressions.
* Java control structures - if, if/else, switch, for, while, do/while, break, continue.
* Basic file I/O in Java
* Modularity - Java methods
* Structured data types: arrays (one-dimensional and 2-dimensional)
* Introduction to user-created Java classes
* Introduction to recursion

**Grade Structure and Policy**

The course will be a combination of lectures, classroom activities, and labs.

|  |  |
| --- | --- |
| **Course Component** | **Grade Distribution** |
| Quizzes | 10% |
| Homeworks/Discussion | 15% |
| Midterms (2) | 20% |
| Lab Assignments | 30% |
| Final Exam | 25% |

**Course Grading Scale:**

Final grade will be computed as follow:

|  |  |  |  |
| --- | --- | --- | --- |
| **Course grade** | **Range** | **Course grade** | **Range** |
| A | ≥90% | C+ | 70% - 73.99% |
| A- | 86% - 89.99% | C | 65% - 69.99% |
| B+ | 83% - 85.99% | D | 60% - 64.99% |
| B | 78% - 82.99% | F | <60% |
| B- | 74% - 77.99% |  |  |

## Assignments and Submissions

* **Blackboard**: Unless otherwise noted, all assignments are to be submitted to *Blackboard* using the submission link associated with each assignment. ( [blackboard.towson.edu](https://blackboard.towson.edu/) )
  + No *hard-copies or emailed assignments will be accepted* unless specifically permitted in the assignment instructions or by express permission of the instructor.
* **Late assignments**: Late Programming Assignments without instructor’s approval will receive a 15% score reduction for each 24 periodthat the assignment is late.
  + If you are having difficulty completing an assignment on time (and require additional assistance), you should contact the instructor or the TA before the due date.
* **Submission Verification**: You are responsible for verifying the proper submission of your assignments to *Blackboard* throughout the semester. Any submission problem should be brought to the instructor's attention as soon as possible, but *after double checking the technology requirements and Blackboard outage announcements*.
  + - If you make a mistake while submitting, you may re-submit any time before the due date/time, but “re-submissions” completely *replace* any previous submission.

**Tentative Schedule of COSC 236 for Spring 2024:**

|  |  |  |
| --- | --- | --- |
| **Week** | **Date** | **Topic** |
| 1 | January 29 | Introduction and Overview |
| January 30 | Lab0 |
| January 31 | Introduction to Java Programming |
| 2 | February 5 | Introduction to Java Programming + Primitive data and java elements |
| February 6 | Lab1 |
| February 7 | Primitive data and java elements Cont. |
| 3 | February 12 | Primitive data and java elements Cont. |
| February 13 | Lab2 |
| February 14 | Introduction to Parameters and Objects |
| 4 | February 19 | Introduction to Parameters and Objects |
| February 20 | Lab3 |
| February 21 | Conditional Execution |
| 5 | February 26 | Conditional Execution |
| February 27 | Lab4 |
| February 28 | Review and Exercises |
| 6 | March 4 | Midterm 1 |
| March 5 | Lab5 |
| March 6 | Nested Loops |
| 7 | March 11 | Nested Loops |
| March 12 | Lab6 |
| March 13 | While Loops |
| 8 | March 18 | Spring Break |
| March 19 |
| March 20 |
| 9 | March 25 | Do/While Loop |
| March 26 | Lab7 |
| March 27 | Arrays |
| 10 | April 1 | Arrays |
| April 2 | Lab8 |
| April 3 | Review and Exercises |
| 11 | April 8 | Midterm 2 |
| April 9 | Lab9 |
| April 10 | Arrays |
| 12 | April 15 | Arrays |
| April 16 | Lab10 |
| April 17 | File processing |
| 13 | April 22 | File processing |
| April 23 | Lab11 |
| April 24 | Intro to Classes and Objects |
| 14 | April 29 | Intro to Classes and Objects |
| April 30 | Lab12 |
| May 1 | Recursion |
| 15 | May 6 | Recursion |
| May 7 | Lab13 |
| May 8 | Basic Searching and Sorting |
| 16 | May 13 | Review and Exercises |
| May 14 | Final Lab Exam |
| May 17 | Final Exam |

**Syllabus Revision:**

The standards and requirements set forth in this syllabus may be modified at any time by the course instructor. Notice of such changes will be by Canvas announcement or email notice.

## Attendance Policies

* **Absences and Grading** 
  + **Overview**: Students are expected to attend each class meeting and attendance is mandatory. Class attendance is essential to doing well in this course and coming to class shows your commitment to doing the work and understanding and learning the material. This class is not just a lecture and the lecture notes posted online are not a replacement for class attendance. During the class session, I may use exercises, questions, quizzes and other approaches that may challenge students to solve problems – student involvement in these discussions is important and this course will weigh attendance and class participation as a small part of the final grade.
  + **Departmental Policies**: The following Attendance Policy was developed by the Computer and Information Sciences Department for COSC 175, COSC 236 and COSC 237 courses in an effort to be consistent and to inform students of the attendance expectation in these courses.
    1. Students are expected to come to class on time and prepared.
    2. Attendance will be recorded at every class session, lecture and lab.
    3. *Beyond 4 unexcused absence, the final course grade will be reduced by 10%*  
       *for each subsequent unexcused absence.*
    4. Additionally, unexcused lab absences will result in a score of zero for the specific lab.
    5. All students are expected to be on time for and remain for the duration of class sessions and make every attempt to avoid disrupting the class. (*Signing in and then leaving does not count as attendance*!)
    6. Students are required to notify the instructor via e-mail if they are unable to attend a class meeting. Written documentation of the reason for the absence will be requested by the instructor and must be submitted for the absence to be excused.
    7. If a student is absent from an exam during the scheduled time without valid reason, for that exam, the student will automatically receive a grade of 0 for the exam unless: The student notifies the instructor of the absence at least 24 hours BEFORE the exam and supplies a written doctor's excuse explaining the absence or there is an extraordinary, documentable situation that the university considers an acceptable excuse. The university policies on excuses absences may be found at: <https://catalog.towson.edu/undergraduate/academic-policies/class-attendance-absence-policy/>
* **Missed information**: Though the student is solely responsible for all acquiring any information missed due to an absence. Assignments and select lecture notes will be posted on *Blackboard* as they become available; you should check *Blackboard*, the syllabus, and/or with classmates *for information about any newly posted assignments.*
  + Please note that Blackboard should not be construed as a replacement for class attendance; not every instruction given in class will necessarily be repeated on Blackboard.
  + Assignments are expected to be submitted on time regardless of your attendance on a particular day.

## Classroom Policies

* **Personal Computing Devices**: The instructor reserves the right to prohibit the use of personal computing devices during lectures, especially if such use is deemed distracting or disruptive to the classroom environment (or to the instructor). This determination will be made at the sole discretion of the instructor. *Cell phones should be* *silenced before the start of clas*s.
* **Classroom Conduct**: We will conduct this class in an atmosphere of mutual respect. I encourage your active participation in class. You should expect that if your conduct during class discussions seriously disrupts the atmosphere of mutual respect I expect in this class, you will not be permitted to participate further.
* **Non-Discrimination:** All students and the instructor are expected to engage with each other respectfully. Unwelcome conduct directed toward another person based upon that person’s actual or perceived race, actual or perceived gender, color, religion, age, national origin, ethnicity, disability, or veteran status, or for any other reason, may constitute a violation of University Policy.
* **Extra Credit**: Extra credit assignments might be given at the end of the semester if necessary.
* **Email**: When contacting the instructor with a question, your email should originate from your university assigned student email address and contain a *reference to the course and section in question*.
  + *Email received from other accounts may be blocked (by any number of spam filters) or significantly delayed.*
  + Any email sent by the instructor to the class as a whole will be addressed to your student account, so be sure to set up “mail forwarding” if you do not often check your [towson.edu](http://towson.edu) account.
  + See: [Email/Office FAQ](https://tu-my.sharepoint.com/:w:/g/personal/aconover_towson_edu/EVplUJbhgMxFgZki3HEcpGQBOTaV2Fiip2Wm1kQIb0HWwg?e=1LB58N) for more information.

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## University Policies (with supporting links)

* **Academic integrity**: This is one area where I have a “Zero Tolerance Policy”. It should be noted that the instructor is *obligated* to report any incidents of academic dishonesty to the office of Academic Affairs. *Note: I try to be reasonable, flexible, and fair in almost every situation, but this is one area where I have non-negotiable professional, academic, and even personal obligations!*  
  + Occurrences of cheating or plagiarism (including the submission of source code copied from the Internet) may yield a failing grade for the assignment or ***the entire course***, and are subject to theuniversity’s established [Student Academic Integrity Policy](https://www.towson.edu/about/administration/policies/documents/polices/03-01-00-student-academic-integrity-policy.pdf)
    - Student Academic Integrity Policy [FAQs for International Students](https://www.towson.edu/academics/international/isso/documents/student-academic-integrity-policy-faqs-for-international-students-000.pdf).
    - Towson University [Student Code of Conduct](https://www.towson.edu/studentaffairs/policies/documents/code_of_student_conduct.pdf).
* **Course repeat policy**: Students may not *repeat* a course more than once without prior permission of the Academic Standards Committee. (In other words, a [Third Attempt requires special permission](https://www.towson.edu/registrar/grades/third-attempt-course.html).)
* **Special Needs**: Students with special needs should contact the instructor at the beginning of the semester to discuss any additional assistance required. Every effort will be made to accommodate those requests. See: [Students with Disabilities](https://www.towson.edu/careercenter/students/resources/disabilities.html).
* **Other**: For any issues not specifically addressed in this syllabus, the student should consult the Towson University Undergraduate Catalog, the Office of the Registrar, or Student Affairs.  
  + Undergraduate Catalog: <http://catalog.towson.edu/undergraduate/>
  + Office Of the Registrar:<http://www.towson.edu/registrar/>
  + Misc., Procedures & Guidelines:  
    <http://www.towson.edu/studentaffairs/policies/>  
    https://www.towson.edu/academics/resources/procedures.html

## Additional Info

See the appendices (at the end of this document) for further details/clarifications pertaining to attendance, academic integrity, etc., as mandated by the Universities syllabus policies.

# Appendix A

## Attendance Policy

* Class attendance is essential to doing well in the course and attending class meetings shows your commitment to doing the work and understanding and learning the material. Students are expected to attend each class meeting and attendance at each scheduled online meeting is required. A student missing class will be held responsible for any missed work (all material covered, work completed during class time, assignments, and assessments).
* The lecture notes and other materials posted online are not a replacement for class attendance. During the class session, I may use programming exercises, questions, and other approaches that may challenge students to solve problems – student involvement in these discussions is important and this course will weight attendance and class participation as a small part of the final grade (class participation is where so much of the learning happens). Simply logging into the virtual classroom space is not sufficient evidence of student attendance and/or student participation. Attendance is measured by your intellectual and active engagement with the course content, course tools, course instructor, and with other students in the course.
* In accordance with Towson University policies, student absences will be excused under the following circumstances:
  1. Cases of illness or injury that prevent attendance in class (written documentation required)
  2. Religious observance that prevents attendance in class (two weeks advanced written notice required)
  3. Death of a family member (see the [Student Bereavement Procedure](https://www.towson.edu/studentaffairs/policies/documents/bereavement.pdf) on the website) 4. Participation in authorized university activities during class time (two weeks written notice from authorized university personnel)
  4. Compelling verifiable circumstances beyond the control of the student.
* Students requesting an excused absence must provide documentation to the instructor two weeks prior to the scheduled absence when known in advance or as soon as possible when not known in advance. Absences that do not fall into any of the above categories are unexcused.
* Student responsibility for missed work is particularly important in the event of an absence due to an extenuating circumstance of the pandemic.
* If a student is absent from an exam during the scheduled time for that exam, the student will automatically receive a grade of 0 for the exam unless: (a) the student notifies the instructor of the absence at least 24 hours BEFORE the exam and supplies a written doctor's excuse explaining the absence or (b) there is an extraordinary situation which the instructor allows as an acceptable excuse. If (a) or (b) applies, arrangements for a make-up exam will be made.
* Unannounced quizzes MAY be administered during the semester. Quizzes – as they are “in-class” exercises and count for a small portion of the overall grade – cannot be made-up.

# Appendix B

## Academic Integrity Policy

For many students, COSC236 requires a substantial amount of time and effort to attend regular class meetings. Doing the assignments, finding (and fixing) errors, and improving coding skills are necessary for students to succeed. For this reason, COSC236 has very strict rules about academic integrity and student collaboration on all assignments. The instructor has an obligation to report suspected cases of academic dishonesty. If your graded work is found to be "substantially similar" to that of another student or any of the various online “do-my-homework-for-me” sites, receive a grade of 0 for that assignment. Subsequent violations may result in a failing grade for course.

The [University's Academic Integrity Policy](https://www.towson.edu/about/administration/policies/documents/polices/03-01-00-student-academic-integrity-policy.pdf) is published in the Towson University Undergraduate Catalog and is available online at the web site of [Student Affairs.](https://www.towson.edu/studentaffairs/policies/)

Academic dishonesty specifically includes acts of plagiarism, fabrication and falsification, cheating, abuse of academic materials, and dishonesty, but also includes helping other students commit acts of academic dishonesty by allowing them to obtain copies of your work. In short, all submitted work must be your own.

The following is a non-exhaustive set of examples of academic dishonestly:

* Unauthorized communication of information during a quiz or exam
* Sharing assignments/quizzes/exams information before, during, or after the deliverable in written, electronic, video, or verbal form.
* Copying someone else’s work
* Giving (or receiving) a detailed explanation of a solution
* Looking at someone else’s solution on their screen, without their permission
* Two (or more) people writing a single solution to an assignment (unless team work specifically assigned)
* Collaborating with someone who is not a current student in this class (this includes siblings, parents, and students from past semesters.)
* Using a substitute to take an exam
* Helping or attempting to help another student commit an act of academic misconduct.
* Lack of truthfulness or sincerity when interacting with the faculty member regarding an academic exercise.
* Re-using work submitted in previous or other classes.
* Using solutions manuals, providing exam and assignment questions to student websites, or using such a website to complete an assignment and/or exam (including free or pay websites that maintain textbook and/or instructor solutions).
* Looking for solutions or help online. Using any code available on the internet/web or any other source.
* Purchasing online solutions (this includes paying a tutor to help solve your assigned work or hiring any online service to complete an assignment/quiz/exam for you.)
* Posting your implementation of any work on the internet/web.

# Appendix C

## Course Materials and Recording Policy

Lectures and course materials, including, but not limited to lecture notes, power point presentations, exams, quizzes, labs, and similar materials, are protected by copyright. Either the Instructor, University, or 3rd party content developers hold copyrights to materials used in the classroom. You may take notes and make copies of course materials for your own use, however, you may not, nor may you allow others to, reproduce, or distribute lecture notes and course materials publicly whether a fee is charged without my express written consent.

Similarly, you own copyright in your original assignments, labs, quizzes, and exams. If I am interested in posting your solutions on the course web site (Blackboard), I will ask for your written permission.

## Blackboard

* [Blackboard](http://blackboard.towson.edu./) is Towson’s Learning Management System.
* Complete the [browser check](https://help.blackboard.com/Learn/Student/Getting_Started/Browser_Support/Browser_Checker) to ensure your computer will be compatible with all Blackboard tools.
* The [Blackboard App](https://www.blackboard.com/mobile-learning/blackboard-app.html) gives students and instructors access to their courses, content, and organizations. Available in your phone's marketplace.
* View [Blackboard help resources](http://www.towson.edu/technology/training/blackboard/students.html) for students (e.g., tutorials) to get started.
* Students should call Blackboard support if they are experiencing issues: 410-704-5151 (Choose Option 1, then Option 5)

## Tutoring

* [CIS tutoring](https://www.towson.edu/tutoring-learning/course-support/tutoring/computer-science.html)

# Appendix D

## Technical Support

* The Office of Technology Services (OTS) has a limited number of laptops to loan to students whose personal computers are unable to run Blackboard, WebEx, Zoom, or applications required by the curriculum. The Towson University Foundation has created the Student Emergency Fund, which has some funds available to assist students in purchasing hotspots, upgrading home internet, and other necessary technologies. For more information, see their[website*.*](https://www.towson.edu/studentaffairs/care/student-emergency-fund.html)

* [Student Computing Services](http://www.towson.edu/scs) (SCS) is your campus resource for technology questions including Blackboard. You can email SCS, call them at 410-704-5151, chat in the lower right corner of any SCS webpage, text at 410-324-7271, or [submit a service request.](http://techhelp.towson.edu/) You may also visit the Student Computing Services labs in Cook 35 and Towson Run 123.

* If you attempt to access Blackboard and it is unavailable beyond a scheduled maintenance, please view the [OTS Alerts](http://wp.towson.edu/otsalerts) to find out further information about the system outage.

* Students should also use the CIS-TechHub SharePoint site for connectivity and software help: [CIS-TechHub.](https://tu.sharepoint.com/sites/cis-techhub/SitePages/Home.aspx) The CIS-TechHub web site provides specific instructions for connecting with lab admins and tutors, installing development environments, connecting to database engines, downloading, and running VMs, connecting to the Virtual Workspace "CIS developer’s desktop", and accessing other course resources for Windows, Linux, and MacOS. The lab admins are using the "Discord" service to respond to student’s technical questions and to share the screen to step through setup processes. The Discord CIS-TechHub server link is: <https://discord.gg/aRUhZcg>