Assessment Type: Assignment # 2	**Course Name / Code: Advanced Linear Algebra** / ES-205
Section: n/a	**Instructor:** Dr. Babar Zaman
Semester: Fall 2023	**Weightage: 2%**

Concerned CLOs:

- Be able to solve systems of linear equations, perform important matrix algebra operations and demonstrate associated understanding. (PLO1 -Engineering Knowledge) (Bloom's Taxonomy Level: C2 = Application)

Instructions:

- Assignment questions are from the **relevant sections of the textbook book covered in the class**. Please see the course handout to identify **the correct textbook edition.**
- Each assignment will be followed by a quiz and doing the assignment questions yourself will help you perform well in the **quizzes, and both carry significant weightage.**
- Thus, please make sure to **do the assignment yourself and in a manner such that the solutions for your questions are easily understood by the instructor**. These points will be considered in the marking of the assignment.
- Both, the **plagiarism policy as well as the late submission policy will be applied**, as follows:
    - **Plagiarism policy**: Any copying found in the assignment will be deemed plagiarism and **zero marks will be allocated to both/all the involved parties for the whole assignment.** Repeated violations may result in a more severe penalty.
    - **Late submission policy: (**Same day but late: -25%, One day late: -50%, More than 1 day late: -100%)
- The due date for this assignment is Friday**, October 09, 2023**. **Please submit your assignments solutions in the class/quiz on the due date**.

Assignment Tasks:

- Read book sections **Chapter 1** (1.7 to 1.10) and **Chapter 2** (2.1 to 2.2)
- Solve the following end-problems from the book

Sr. No.	Section No. and title	Problems
1	1.7- Linear Independence	10, 20, 23, 35, 38, 44, 46
2	1.8 – Introduction to Linear Transformation	2, 6, 11, 14, 18, 19, 30, 34, 38, 41
3	1.9 – The Matrix of a Linear Transformation	5, 11, 14, 22, 28, 40, 43

4	1.10 – Linear Models in Business, Science and Engineering	1, 8, 9
5	2.1 – Matrix Operations	3, 10, 14, 18, 26, 30, 35
6	2.2 – The Inverse of a Matrix	7, 9, 17, 23, 30, 35, 42, 45