

## CWR 3540 – WATER RESOURCES ENGINEERING – Fall 2023

***(Guidelines: engineering paper or equivalent; 8-1/2 in x 11 in sheets; content organized in official template; all sheets stapled)***

***Assigned Study Material:*** Modules 3 and 4

### ***Homework Set No.5:***

***Required Problem 8.12 (40 points) (see textbook p. 329)***

***Required Problem A (60 points) (see statement below\*)***

***\*Problem A:*** Refer to the discharge measurements and corresponding measured stages that are listed in Example 8.11 (p. 310) of your textbook. Your objective is twofold, as follows:

- a) (30 points). Determine the datum correction value,  $a$ , for the entire discharge range of the data, using the arithmetic procedure **and**
- b) (30 points). Derive and graph the rating curve using regression analysis, reporting the squared of the correlation coefficient.

Please include all your calculations and supporting graphs to justify your answers.

Due on Tuesday, October 24, 2023; **turn it in to the instructor at the start of the lecture.**

***Recommended Practice Problems:*** 8.10, 8.11, 8.13, 8.14, 8.19, 8.20, 8.21, 8.22 and 8.23

***Exam No. 2: Thursday, November 2, 2023***