**Lab 3 – Non Linear Curve Fitting**

CENG 340: Introduction To Environmental Engineering

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**PART I: OXYGEN DEPLETION KINETICS**



Figure 01: Measured DO concentration (mg/L) over Time (min) on a second order reaction for consumption of dissolved oxygen. Circles represent the Data set 1 and the full line is the curve fitting. K=0.14005 L/mg.min.

Figure 02: Figure 01: Measured DO concentration (mg/L) over Time (min) on a zero order reaction for consumption of dissolved oxygen. Circles represent the Data set 2 and the full line is the curve fitting. K=0.3 mg/l\*min



Figure 03: Figure 01: Measured DO concentration (mg/L) over Time (min) on a first order reaction for consumption of dissolved oxygen. Circles represent the Data set 3 and the full line is the curve fitting. K=0.11001 min-1