## Cairo University

SBE 601 Numerical Methods in Biomedical Engineering - Spring 2017

Dr. Muhammad A. Rushdi: mrushdi@eng1.cu.edu.eg

- You can work on the assignment in groups of **2-3 students**.
- Type your solutions in LaTeX using the provided template (Created by Eng. Yassin Amer).
- Please compress your LaTeX folder containing the solution after making sure that it works and email it to me: mrushdi@eng1.cu.edu.eg
- Please indicate clearly the contribution of each group member in the page of **LaTeX** template specified for that.
- Most of the problems are from the following textbooks:

[Chapra 2011] Applied Numerical Methods with MATLAB for Engineers & Scientists by Steven Chapra (2011)

[Dunn 2005] Numerical Methods in Biomedical Engineering

by Stanley Dunn, Alkis Constantinides, and Prabhas V. Moghe (2005)

[King 2010] Numerical and Statistical Methods for Bioengineering

by Michael R. King, and Nipa A. Mody (2010)

[Burden 2010] Numerical Analysis

by Richard L. Burden, and J. Douglas Faires (2010)

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## **Assignment 0 Modeling, Computers, and Error Analysis**

Book Chapter	Problems
Chapter 1, pp. 20-23, [Chapra 2011]	1.8, 1.11, 1.14, 1.18, 1.20
Chapter 2, pp. 44-47, [Chapra 2011]	2.5, 2.10, 2.12, 2.14, 2.15, 2.19, 2.20, 2.22, 2.23
Chapter 3, pp. 83-87, [Chapra 2011]	3.6, 3.12, 3.13, 3.14, 3.19, 3.22
Chapter 4, pp. 120-122, [Chapra 2011]	4.4, 4.8, 4.9, 4.11, 4.19, 4.24