

Cairo University

SBE 601 Numerical Methods in Biomedical Engineering - Spring 2017

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- You can work on the assignment in groups of **at most 2 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 2 Linear Systems

Book Chapter	Problems
Chapter 8, pp. 226-228, [Chapra 2011]	8.9, 8.14
Chapter 9, pp. 251-253, [Chapra 2011]	9.16, 9.17
Chapter 10, p. 267, [Chapra 2011]	10.8, 10.11
Chapter 11, pp. 280-283, [Chapra 2011]	11.11, 11.14
Chapter 12, pp. 300-302, [Chapra 2011]	12.7, 12.11, 12.13
Chapter 13, pp. 317-319, [Chapra 2011]	13.10, 13.11
Chapter 4, pp. 114-116, [Dunn 2005]	4.3
Chapter 2, pp. 127-136, [King 2010]	2.4, 2.5, 2.6 (Read Box 2.1A, pp. 48-53 and Box 2.1B, p. 83), 2.9
Chapter 6, pp. 357-428 [Burden 2010]	<u>Exercise Set 6.1</u> : 10, 19 <u>Exercise Set 6.2</u> : 31 <u>Exercise Set 6.3</u> : 15 <u>Exercise Set 6.4</u> : 12 (a,b,c) <u>Exercise Set 6.6</u> : 20, 23
Chapter 7, pp. 431-495 [Burden 2010]	<u>Exercise Set 7.1</u> : 1 <u>Exercise Set 7.2</u> : 17