

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 3 Curve Fitting, Integration, and Differentiation

Book Chapter	Problems
Chapter 14, pp. 356-360, [Chapra 2011]	14.5, 14.8, 14.9 (Hint: See Prob. 14.10), 14.14, 14.22 (Hint: Check Equation (15.3) p. 363)
Chapter 15, pp. 375-379, [Chapra 2011]	15.5, 15.6, 15.7, 15.19
Chapter 17, pp. 425-428, [Chapra 2011]	17.4, 17.7, 17.12, 17.13
Chapter 18, pp. 456-458, [Chapra 2011]	18.3, 18.8, 18.12, 18.14
Chapter 19, pp. 492-496, [Chapra 2011]	19.3, 19.6
Chapter 20, pp. 517-520, [Chapra 2011]	20.6, 20.9
Chapter 21, pp. 540-545, [Chapra 2011]	21.4, 21.19, 21.38
Chapter 6, pp. 206-208, [Dunn 2005]	6.6, 6.7
Chapter 2, pp. 136-139, [King 2010]	2.13, 2.17
Chapter 6, pp. 403-408, [King 2010]	6.4, 6.5