You will answer the following questions found at the end of the relevant chapters of the textbook (Larose and Larose).

*Notes:*

* Question 6 is a hands-on calculation question. You may want to use Excel to implement the calculation process and included either a table pasted from your Excel tables or a screenshot of your Excel view.
* For hands-on questions, use the *cereals.csv* dataset. A reference table of selected variables to be used in this homework is provided at the end of this homework; follow the directions described in the table. It is also important to read the requirement paragraph before question #12 in the textbook.

|  |  |  |
| --- | --- | --- |
| **Chapter** | **Question #** | **Points** |
| 10  (Hierarchical and k-Means Clustering | 2 | .3 |
| 6 | .4 |
| *Hands-on* |  |
| 12 | .4 |
| 13 | .4 |

This homework is worth 1.5 points (out of 100 points).

Variables to be used for solving the problems:

|  |  |
| --- | --- |
| **Variable** | **Definition** |
| Name | (ID) Cereal product name |
| Calories | (continuous) Calories per serving |
| Carbo | (continuous) Grams of carbohydrates |
| Fat | (continuous) Grams of fat |
| Fiber | (continuous) Grams of fiber |
| Potass | (continuous) Milligrams of potassium |
| Protein | (continuous) Grams of protein |
| Sodium | (continuous) Milligrams of sodium |
| Sugars | (continuous) Grams of sugars |
| Vitamins | (continuous) Percentage of recommended daily allowance of vitamins |
|  | ***Requirement: Reject all other variables for this assignment.*** |

Due date: see syllabus section **Tentative Lecture Outline**

Requirements (Important! Read carefully):

* Use MS Word to build your answers; submit a Word file to Blackboard.
* For non-hands-on questions, elaborate your answers as much as you can. Include and elaborate your rationale if asked, and the main steps taken if relevant.
* **For hands-on questions, you are required to use SAS EM**. Do not only provide the short answer to the question. Besides the short answer, you are required to paste the appropriate screenshots of the relevant steps in SAS EM, including but not limited to, diagram, interface, results output, plot/chart, etc., wherever appropriate. You are advised to err on the side completeness in including screenshots, typically the more the better, as they will allow the Professor or TA to evaluate your competence with SAS.
  + You will receive substantial deduction in points if you only include a short answer, when it is indeed necessary to see relevant screenshots of your EM project and/or process for your Professor or TA to evaluate how you obtained the result in SAS EM.