

HINF 1100: Introduction to Health Informatics

Fall 2008

Assignment 2

Assignment Date: Oct 22, 2008

Assignment Due Date: Oct 29, 2008

Question 1:

40%

Use the ICD-10 coding scheme available at the following website (<http://www.who.int/classifications/apps/icd/icd10online/>) to answer the below questions:

- A. How many different MAIN classes of diseases and procedures are listed by ICD-10?
- B. Given the disease APPENDICITIS answer the following
 - I. What is the ICD10 code for APPENDICITIS?
 - II. What type of disease is APPENDICITIS (I am not asking about the chapter information)?
 - III. How many different sub-types of APPENDICITIS exist?
 - IV. What are the different types of acute APPENDICITIS. Also list their codes?
- C. Given the disease ACUTE MYOCARDIAL INFARCTION answer the following
 - I. What is the ICD10 code for ACUTE MYOCARDIAL INFARCTION?
 - II. What type of disease is ACUTE MYOCARDIAL INFARCTION (I am not asking about the chapter information)?
 - III. How many different sub-types of ACUTE MYOCARDIAL INFARCTION exist?
 - IV. What are the other diseases in the same class as ACUTE MYOCARDIAL INFARCTION. Also list their codes?
- D. Given the procedure OPERATIONS ON THE CARDIOVASCULAR SYSTEM, answer the following questions
 - I. What is the ICD10 code for Operations on valves and septa of heart
 - II. How many different types of Operations on valves and septa of heart are listed in the ICD10 coding

Question 2:**20%**

You need to do some research to answer the below answers.

- I. What is the purpose of the UMLS
- II. Give a brief Description of the UMLS Knowledge Sources and Associated Tools
- III. In the semantic network what are the sub-relations for the relation “Associated with”. Give only the next sub-relations and not their children.
- IV. In the semantic network what are the sub-relations for the relation “temporally_related_to”

Question 3:**40%**

Use the MESH browser (<http://www.nlm.nih.gov/mesh/MBrowser.html>) to answer the following questions

- I. Give the 3 digit code for the following:
 - a. Diagnosis (Descriptor Date)
 - b. Nervous system diseases;
 - c. Hormones, Hormone Substitutes, and Hormone Antagonists
- II. For the disease code [C10.228.566.500.500] answer the following questions:
 - a. What is the name of the disease given by the above code
 - b. Give the hierarchy of diseases that form the parents of the above code
 - c. What is the top-mode code for this type of disease (note that top most code is based on body parts)
 - d. What are the CONCEPTS associated with this disease, and what is their concept UI
- III. For the disease “Hormones, Hormone Substitutes, and Hormone Antagonists”, answer the following question:
 - a. In the hierarchy for this disease what are its parents and their codes.
 - b. What are the children of “Hormones, Hormone Substitutes, and Hormone Antagonists” and their codes.
- IV. For the MeSH term “Digestive System Neoplasms”, provide the following information:
 - a. Tree Numbers
 - b. Concepts
 - c. Unique ID
 - d. Concept’s parents from the MeSH tree structure.

Submission Instructions:

- You are required to TYPE your answers and staple the pages. Handwritten notes will not be accepted. Also, credit cannot be given to any missing page that is produced later (therefore staple the pages)
- Write your name, Banner ID and e-mail address on the front page of the assignment.
- You can email your assignment to sraza@cs.dal.ca

Notes:

- This assignment is to be attempted and submitted on an individual basis.
- Students are advised to read and understand the Dalhousie Plagiarism policy.
- Students are advised to read the late assignment submission policy in the HINF1100 Description Document