Step 1 open the file

OPEN file FOR reading

IF file cannot be opened THEN

DISPLAY "file could not be opened"

EXIT

ENDIF

Step 2: Create a place to hold all courses

CREATE Hashmap courseMap

DEFINE CLASS Course

Course.Number = courseNumber

Course.Name = name

Course.Prerequisites = prerequisites

END Course

Step 3: Read data from file, line by line

WHILE there are lines in file

READ line

SPLIT line by commas > tokens

Step 4: Extract course information

courseNumber = tokens[0]

name = tokens[1]

prerequisites = all remaining tokens (tokens[2] > tokens [n])

END WHILE

Step 5: Search the Data Structure

FUNCTION searchCourse(courses, courseNumber)

INPUT: courses(Vector of all course objects), courseNumber (String)

OUTPUT: None (Void function)

FOR(all courses)

IF the course is the same as courseNumber

PRINT out the course information

FOR each prerequisite of the course

PRINT the prerequisite course information

END FOR

END IF

END FOR

END FUNCTION

Step 6: Close File

Close File for reading