1. **Open the File, Read, Parse, and Validate Data**

Begin

Prompt user to enter the path for the course information data file

Open the file for reading

If the file fails to open

Output "File not found or cannot be opened."

End program

For each line in the file

Split the line by comma delimiter into tokens

If there are fewer than 2 tokens

Output "Invalid line: not enough parameters"

Continue to next line

Set courseNumber = first token

Set courseTitle = second token

Initialize prerequisites as empty list

For each remaining token in the line (starting from third token)

If token matches a valid course number in the file

Add token to prerequisites list

Else

Output "Invalid prerequisite detected"

Continue to next token

Create a Course object with courseNumber, courseTitle, prerequisites

Insert Course object into the hash table using courseNumber as the key

End For

Close the file

End

1. **Store Each Course in Hash Table**

For each parsed Course object

Compute hash key using courseNumber

If the hash table bucket is empty

Insert Course object in this bucket

Else

Add Course object to the end of the linked list in the bucket (for collision handling)

End For

1. **Print Course Information and Prerequisites**

For each bucket in the hash table

For each Course object in the bucket's linked list

Print "Course Number: " + courseNumber

Print "Course Title: " + courseTitle

If prerequisites list is not empty

Print "Prerequisites: " + join(prerequisites, ", ")

Else

Print "Prerequisites: None"

Print newline for readability

End For

End For