# Thomas Martin

# CS-300-H2990 DSA: Analysis and Design 23EW2

# 3-3 Milestone: Vector Data Structure Pseudocode

# Southern New Hampshire University

**November 18, 2023**

Open the file

file\_path = "path/to/CourseInformation.txt"

file = open(file\_path, "r")

except FileNotFoundError:

print("File not found.")

exit()

courses\_vector = []

for line in file:

course\_data = line.strip().split(",") # Assuming comma-separated values

if len(course\_data) < 2:

print("File format error: Insufficient parameters on line.")

continue # Skip to the next line

course\_number = course\_data[0]

course\_title = course\_data[1]

prerequisites = course\_data[2:] if len(course\_data) > 2 else []

for prereq in prerequisites:

if not any(course.course\_number == prereq for course in courses\_vector):

print(f"File format error: Prerequisite {prereq} not found.")

break # Skip to the next line

course\_object = {

"course\_number": course\_number,

"course\_title": course\_title,

"prerequisites": prerequisites

}

courses\_vector.append(course\_object)

file.close()

def search\_course(course\_number):

for course in courses\_vector:

if course["course\_number"] == course\_number:

print("Course Information:")

print(f"Course Number: {course['course\_number']}")

print(f"Course Title: {course['course\_title']}")

print("Prerequisites:", ", ".join(course['prerequisites']))

return

print(f"Course {course\_number} not found in the data structure.")

search\_course("CS101")