King Saud University

College of Applied Studies and Community Service

Department of Natural and Engineering Sciences

NET 445 – Internet Programming - 3 (3+2+1)

**Semester II, Academic Year 2021-2022**

**Course Description (catalog):**

The aim of this course is to provide the student with the practical experience of internet programming. This course provide investigates several internet technologies such as socket programming, data transfer, FTP, email, DNS, and HTTP and their programming APIs. Students learn how to apply these concepts practically to build secure networked applications using Python.

**Prerequisites:** GC 415 - Internet Application Development

**Textbook(s) and/or Other Required Materials:**

**Primary**:

* Computer Networking: A Top-Down Approach 7th Edition by James Kurose and Keith Ross (2016)
* Foundations of Python Network Programming Third Edition by Brandon Rhodes (2014)
* Python 3 documentation

**Supplementary**:

* Lecture Notes being provided in the class
* https://www.w3schools.com/python/
* https://www.tutorialspoint.com/python

**Course Learning Outcomes**:

1. Introduce Python programming concepts
2. Explain the basics of socket programming
3. Understand email components and its programming API.
4. Explain the main components of DNS implementations.
5. Understand HTTP components and API
6. Explain the main components of web servers applications.
7. Discuss the security issues of Internet programming and their solutions.

**Assessment Plan for the Course**

Homework 10%

Quizzes 20%

Midterm 30%

Final Exam 40%

**Attendance Policy:**

Absence from lectures and/or tutorials shall not exceed 25%. Students who exceed the 25% limit without an accepted medical or emergency excuse shall not be allowed to take the final examination and shall receive a grade of “DN” for the course.

**Polices**

1. No late homework will be accepted.
2. The quizzes may be pop or announced, and may be given at anytime during class-time
3. Homework assignments are considered individual efforts. However, students are encouraged to share thoughts with others. ABSOLUTELY NO COPYING. Academic dishonesty cases will be dealt with severely.
4. All exams are closed book.
5. The final exam will be comprehensive.

**Instructor,**

**Maram aldakheel**