

Course Title and Code IT 315 object Oriented Programming II

### I. Course Identification and General Information:

| Course Title | Object Oriented Programming II | Course Code  | IT 315 | Pre-requisite | IT 214 |
|--------------|--------------------------------|--------------|--------|---------------|--------|
| Department   | Information Technology         | Course Level | 6      | Credit Hours  | 3(2+1) |

## II. Course Description/Topics: The following course topics will be covered.

This course introduces students: Introduction To Python variables – Operators - Declaring and using Numeric data types: int, float, complex - Using string data type and string operations - Defining list - Concept of class, object and instances- Inheritance - Dictionary manipulation, list and dictionary in build functions – Reading and Writing files in python - Python Exception Handling - Python Database Interaction - Python Multithreading - Python - GUI Programming (Tkinter).

# III. Course Outcomes: Summary of the main learning outcomes for students enrolled in the course.

- Identifying Object Oriented Programming principles in Python.
- Understand the benefits of a well-structured program Python
- Students are required to communicate and work with a team to learn how to use advanced tools through Python applications to meet certain requirements of project and get influent.
- Students learn the skill on how to use the advanced OOP tools
- Develop problem-solving and programming skills using GUI Programming concept.
- Develop the ability to solve real-world problems through software development in Database applications,
- Develop efficient applications using the OOP of Python concept and conduct experiments, analyze, and interpret the problems, and deduce conclusions to meet certain objectives.

## IV. Required Text:

- Python Crash Course: A Hands-On, Project-Based Introduction to Programming.
- Eric Matthes-1st Edition, William Pollock SBN-10: 1-59327-928-0ISBN-13: 978-1-59327-928- (second Edition) 2019.

#### V. References:

• Python Cookbook, Third edition by David Beazley, Brian K. Jones.