Faculty End-of Course Reflection Summary

Purpose of This Course

This is a lecture and laboratory course offered to introduce basic concepts of computer science and programming. This course introduces students to the basics of logically analyzing the steps needed to accomplish a task using a computer. Students learn how to build an algorithm and programming fundamentals in the Python programming language.

Student Learning Outcomes (SLO)

SL01 Solve a word problem by applying the appropriate mathematical setup, obtaining the mathematical solution, and interpreting this solution in the context.

SL02 Solve a theoretical problem by identifying the appropriate mathematical context, interpreting the question and the nature of the solution, and checking that the solution is correct.

SL03 Complete a proof or produce a mathematical object that satisfies specific properties.

SL04 Solve a problem by consulting various resources, applying appropriate technological tools, and using adequate approximations.

SL05 Analyze how information technology affects ethical and legal issues.

SL06 Synthesize appropriate solutions to organizations' problems.

Course Learning Outcomes: As a result of passing MAT 215 a student will be able to

1. design algorithms (SLO1, SLO2)
2. apply a computer language (SLO4)
3. apply the basic elements of the Python language (SLO4)
4. identify input and output of various problems proposed (SLO2, SLO4)
5. create algorithms for solving various problems proposed (SLO1 to SLO4)
6. encode a program in Python language in order to solve various problems proposed (SLO1 to SLO4)

Overall Comments/Impressions

What was different this time:

1. Redesigned exam problem sets that emphasize Python coding implementation to reinforce programming basics.
2. Enhanced interactive sessions during labs to effectively assess and guide students through their programming assignments.

What worked: Continued improvement of course materials using Jupyter notebooks, readily accessible to students via Canvas.

What could be better: Recognizing the importance of increasing student engagement, the course could benefit from the development of more interactive content.

Suggested changes for this course: Addressing remote students' challenges with engagement on platforms like MS Teams by exploring alternatives such as real-time code access through platforms like https://www.codingrooms.com for effective online communication.

Implications for technology, budget, etc.: The suggested changes do not entail additional technology or budgetary implications at this stage.