IT306: IT Research Methods

Continuous Assessment Course

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GENERAL DESCRIPTION: The projects in this course seek to equip students with the scientific research knowledge and skills required for identifying and addressing IT challenges and opportunities in organizations and society. It seeks to prepare students to conduct independent research within the field of information technology and computer science. It also seeks to engage students on how to align theoretical frameworks with units of analysis in their research.

PROJECT PHASE 1:

Identify an issue (national or international) that needs to be solved. Develop a 2-page research proposal on the identified issue. Your proposal should communicate a design-based solution/research (i.e., development of an artefact). Your proposal should also present convincing arguments on the relevance and significance of the proposed research. In presenting your arguments:

a. Suggest a suitable topic for the proposed research.
b. Provide a background on the concepts/phenomena/issues you seek to investigate.
c. Give a detailed statement of the problem to be investigated.
d. Develop at least two (2) research objectives of your proposed research.
e. Develop at least two (2) research questions your proposed research seeks to answer.
f. Highlight at least two (2) points to illustrate the significance of your proposed research.
g. Propose and discuss a suitable methodology for your proposed project.
h. Discuss at least two (2) expected outcomes of your research.
i. Develop a detailed Gantt chart that depicts the timelines for different activities involved in your project.

Grading/Marking Schemes:

Complete project Document: 20 marks.

Total marks: 20 marks.

NB: No presentation, No grading.

PROJECT PHASE 2

Based on the proposal in Phase 1, you are required to:

1. Perform a 5-year (2019-2023) period systematic literature review on the proposed research area. In your review, you are to:
    a. Discuss and provide justification for your selected review methodology.
    b. Give detailed description of the search process.

c. Give detailed description of the inclusion and/or exclusion criteria.
d. Develop a diagram to illustrate the search process.
e. Summarize the information in the selected publication in a table (see Appendix)
f. Provide a detailed empirical review discussion on the selected publications.
g. Provide a detailed methodological review discussion on the selected publications.
h. Provide a detailed theoretical review discussion on the selected publications.
i. Provide a detailed discussion on the limitations of the selected publications.
j. Provide a detailed discussion on the gaps in existing research that your research seeks to address.

Grading/Marking Schemes:

Complete project Document: 25 marks.

Total marks: 25 marks.

NB: No presentation, No grading.

PROJECT PHASE 3

In reference to the gaps your research seeks to address, you are expected to provide a detailed description of the methods, techniques, and approaches you would use in developing your proposed system. In this project phase, you are expected to:

a. Provide a detailed description of your proposed system.
b. Adopt and report on the techniques (e.g., observation, interviews, surveys, etc) you used in gathering the requirements of your proposed system.
c. Identify and outline at least five (5) the functional and non-functional requirements each of your proposed system.
d. Provide a feasibility report (including technology, resource, and economic feasibility) in developing your proposed system.
e. Illustrate your proposed system's design using at least four (4) UML diagrams (e.g., use case, flowchart, ERD, etc).
f. Illustrate the structure of your system design (i.e., showing all the essential components) using a wireframe or storyboard.
g. Conduct and generate a report on a simple survey eliciting potential users' perceptions of the proposed system.

Grading/Marking Schemes:

Complete project Document: 35 marks.

Total marks: 35 marks.

NB: No presentation, No grading.

OTHER REQUIREMENTS (content/formatting/referencing/plagiarism):

1. Your proposed research area should fall within the approved research areas for ASDASS Capstone projects.
2. Follow the appropriate formatting and referencing guidelines for the course.
3. Maximum plagiarism (similarity index) threshold is 30%.
4. Deadlines for submission is **STRICT**.

NB: See Appendices for related templates.