

UNIVERSITY OF DELTA, AGBOR, NIGERIA
COMPUTING
Information and Communication Technology
B.Sc. Information and Communication Technology

UNIDEL-ICT 204: Introduction to Critical Thinking (2 Units; **Compulsory**; LH=30)

Senate-approved Relevance

The training of high-skilled graduates who can conceptualize, apply, analyze, synthesize and/ or evaluate information gathered from, or generated by, observation, experience communication as a guide to belief is in tandem with the vision and mission of the University of Delta, Agbor. This ensures that cyber security graduates with demonstrable potentials possess necessary skillset to handle creatively deduce consequences from what they know, make use of information to solve problems and seek relevant resources of information to inform others. The relevance of this course is seeing and producing cyber security graduates of the University of Delta, Agbor that are adequately armed with the understanding creative process of any individual.

Overview

Critical thinking is the ability to think clearly and rationally about what to do or what to believe. It enriches the student with the ability to engage in reflective and independent thinking. Introduction to critical thinking is the intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action. Critical thinkers are able to deduce consequences from what they know, make use of information to solve problems, and to seek relevant sources of information to inform themselves. This course will help the students acquire knowledge, improve our theories, and strengthen arguments as well enhance work processes and improve social institutions.

The course enriches the students with analytical skills so that they can evaluate data given to them and interpret it in an optimal way. The course will enable the student to understand the logical connection between ideas, identify, construct, and evaluate arguments, detect inconsistencies and common mistakes in reasoning, solve problems systematically, identify the relevance and importance of ideas as well as reflect on the justification of one's own belief and values. The objectives of the course, learning outcomes, and course synopsis are provided to address this need.

Objectives

The objectives of this course are to: (i) Use self-correction and monitoring to judge the rationality of thinking as well as reflexivity; (ii) Scrutinize, differentiate and appraise information as well as reflecting on information to make judgments; (iii) Actively augment, initiate, reason, envision, and analyze complex alternatives and making contingency-related value judgment; (iv) Identify, analyze, ask appropriate questions to clarify and challenge statements or beliefs judge the credibility of sources; and (v) Solve problems by predicting probable outcomes through logic or deductions (vi) Exhibit sensitivity to other's feelings and depth of knowledge; and (vii) Describe ways to minimize error and take correct decisions quickly in a crucial situation

Learning Outcomes

Upon completion of this course, students should be able to: (i) Discuss and take positions or change position as evidence dictates; (ii) demonstrate the ability to seek information as well as precision in information; (iii) Explain and keep the original problem in mind and search for reasons; (iv) Describe at least four of the components of complex problems in an orderly manner; (v) discuss and look for options or alternatives; (vi) Exhibit sensitivity to other's feelings and depth of knowledge; and (vii) Describe ways to minimize error and take correct decisions quickly in a crucial situation

Course Contents

Introduction to critical thinking. Types of thinking. Importance of critical thinking. Cognitive thinking. Evolution of human brain. Left brain versus right brain. Importance of cognition in critical thinking. Limitation of cognition. Reasoning. Importance of reasoning in decision making. Impact of reasoning in critical thinking. Fallacious reasoning. Good and bad reasoning. Limitations of reasoning. Logical thinking. Importance of thinking logically. Inductive and deductive reasoning. Impact of logics in critical thinking. Statements and arguments. Argument, assumption and conclusion. Introduction to white, red, black, yellow, blue and green hats. Application of hats tool. Cognitive bias. Myths about cognitive bias. Cognitive bias and critical thinking. Debiasing strategies. Parts of critical thinking. Comprehension. Identification. Evaluation. Inference. explanation, self-assessment. Practical application of critical thinking

Minimum Academic Standard: NUC minimum academic standard requirements for facilities.