PROGRAMME EDUCATIONAL OBJECTIVES (PEOs) FOR B.ENG COMPUTER ENGINEERING PROGRAM AT LAGOS STATE UNIVERSITY OF SCIENCE AND TECHNOLOGY.

Upon completion of the program, graduates should:

1. Demonstrate practical proficiency in core programming paradigms, including database orientation and object orientation, and possess essential concepts for implementing software-based systems and processes.

2. Possess the capability to undertake the development of large-scale enterprise solutions and software for systems, processes, and networks. They should be proficient in recommending, designing, adopting, and implementing integrated components to provide enterprise network solutions.

3. Showcase expertise in recommending, designing, implementing, and managing IT solutions, infrastructures, and systems across industrial, private, and public scales. This ability should be based on considerations such as client needs, budget constraints, environmental conditions, social settings, and national development priorities.

4. Exhibit technical leadership and effective communication skills to support various services in multi-disciplinary environments. Graduates should adhere to the ethical standards of the engineering profession.

5. Progress professionally towards broader opportunities within the engineering field, showcasing a commitment to lifelong learning, professional development, and contributing to educational and community services.

PROGRAM OUTCOMES (POs) FOR B.ENG COMPUTER ENGINEERING PROGRAM AT LAGOS STATE UNIVERSITY OF SCIENCE AND TECHNOLOGY.

Upon completion of the program, a graduate of the Computer Engineering program is expected to demonstrate the ability to:

1. **Engineering Knowledge:** Apply knowledge of mathematics, science, engineering fundamentals, and specialization to solve developmental and complex engineering problems.

2. **Problem Analysis:** Identify, formulate, research literature, and analyze developmental and complex engineering problems, drawing substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

3. **Design/Development of Solutions:** Propose solutions for developmental or complex engineering problems and design systems, components, or processes meeting specified needs, considering public health and safety, as well as cultural, societal, and environmental factors.

4. Investigation: Conduct investigations into developmental or complex problems using research-based knowledge and methods, including designing experiments, analyzing and interpreting data, and synthesizing information to draw valid conclusions.

5. Modern Tool Usage: Create, select, and apply appropriate techniques, resources, and modern engineering and ICT tools, including prediction, modeling, and optimization, to developmental and complex engineering activities with an understanding of their limitations.

6. The Engineer and Society: Apply reasoning informed by contextual knowledge in humanities and social sciences to assess societal, health, safety, legal, and cultural issues and the resulting responsibilities pertinent to professional engineering practice.

7. Environment and Sustainability: Understand the impact of professional engineering solutions in societal and environmental contexts and demonstrate knowledge of the need for sustainable development.

8. Ethics: Apply ethical principles, commit to professional ethics and responsibilities, and adhere to the COREN Engineers Code of Conduct.

9. Individual and Team Work: Function effectively as an individual and as a member or leader in diverse teams and multidisciplinary settings.

10. Communication: Communicate effectively on developmental or complex engineering activities with the engineering community and society at large. This includes comprehending and writing effective reports and design documentation, making impactful presentations, and giving and receiving clear instructions.

11. Project Management: Demonstrate knowledge and understanding of engineering, management, and financial principles, applying them as a leader in a team to manage projects in multidisciplinary environments.

12. Learning: Recognize the need for and possess the preparation for independent and lifelong learning in the broadest context of technological and social changes.