



Covenant University

B.Eng. Degree Programme in

Petroleum Engineering

Programme Outcomes (POs)/ Student
Outcomes (SOs)

FOR

COMPLIANCE WITH THE ACCREDITATION OF
ENGINEERING PROGRAMMES IN NIGERIAN
UNIVERSITIES

BY

**COUNCIL FOR THE REGULATION OF ENGINEERING
IN NIGERIA**

Established by Decrees 55/70 and 27/92 (amendment) now the
Engineers (Registration, etc.) Act, CAP E11, 2004

2022-2027 SESSION

Programme Outcomes (POs)/ Student Outcomes (SOs) of the Department Petroleum Engineering, Covenant University

The Programme Outcomes are presented in Table 1.

Table 1: Programme Outcomes

| | |
|---|--|
| O1. Engineering knowledge | Apply knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of developmental and complex engineering problems. |
| O2. Problem Analysis | Identify, formulate, research literature and analyse developmental and complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences. |
| O3. Design /development of solutions | Proffer solutions for developmental or complex engineering problems and design systems, components or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal and environmental considerations |
| O4. Investigation | Conduct investigation into developmental or complex problems using research based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusions. |
| O5. Modern Tool Usage | Create, select and apply appropriate techniques, resources and modern engineering and ICT tools, including prediction, modelling and optimization to developmental and complex engineering activities, with an understanding of the limitations. |
| O6. The Engineer and Society | Apply reasoning informed by contextual knowledge including Humanities and Social Sciences to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to professional engineering practice |
| O7. Environment & Sustainability | Understand the impact of professional engineering solutions in societal and environmental contexts and demonstrate knowledge of and need for sustainable development. |
| O8. Ethics | Apply ethical principles and commit to professional ethics and responsibilities and norms of engineering practice, including adherence to the COREN Engineers Code of Conducts. |
| O9. Individual and Team work | Function effectively as an individual, and as a member or leader in diverse teams and in multi-disciplinary settings. |
| O10. Communication | Communicate effectively on developmental or complex engineering activities with the engineering community and with society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions. |
| O11. Project Management and Finance | Demonstrate knowledge and understanding of engineering, management and financial principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multi-disciplinary environments. |

| | |
|-------------------------------|---|
| O12. Lifelong learning | Recognize the need for, and have the preparations and ability to engage in independent and lifelong learning in the broadest context of technological and social changes. |
|-------------------------------|---|

Table 2: Link between the student outcomes and the program educational objectives

| Program Educational Outcomes | OB1 | OB2 | OB3 | OB4 | OB5 |
|--------------------------------------|-----|-----|-----|-----|-----|
| O1: Engineering knowledge | • | • | • | • | • |
| O2: Problem Analysis | • | • | • | | |
| O3: Design /development of solutions | • | • | • | • | • |
| O4: Investigation | | • | • | | |
| O5: Modern Tool Usage | • | • | • | • | • |
| O6: The Engineer and Society | • | | • | | |
| O7: Environment & Sustainability | • | | | • | • |
| O8: Ethics | • | | • | | |
| O9: Individual and Team work | • | | | • | • |
| O10: Communication | • | • | | | |
| O11: Project Management and Finance | • | • | | • | |
| O12: Lifelong learning | | • | | • | |