

Offshore Structures Analysis and Design Using SACS System

Cairo (Egypt)

20 - 24 December 2026

UK Training

PARTNER



Offshore Structures Analysis and Design Using SACS System

Code: OG32 From: 20 - 24 December 2026 City: Cairo (Egypt) Fees: 4900 Pound

Introduction

Offshore structure analysis and design using the SACS system is a critical topic for organizations in oil & gas, energy, and marine infrastructure sectors in the MENA region. This advanced system empowers executives, team leaders, and professionals at all career levels to make data-driven decisions. With a growing need for operational efficiency, safety enhancement, and cost reduction, engineers and technical staff are eager to develop advanced analytical and design skills that drive innovation and support organizational goals. This training program provides an in-depth look at using SACS for offshore structural analysis and design, focusing on practical application and real-world problem-solving.

Course Objectives

- Understand fundamental principles of offshore structural analysis.
- Learn to use the SACS system for analysis and design processes.
- Apply various marine loading models within SACS.
- Analyze stress conditions and dynamic responses.
- Assess the structural stability and safety of offshore platforms.
- Prepare precise, actionable analytical reports.
- Develop decision-making skills in offshore engineering projects.

Course Outlines

Day One: Fundamentals and Load Analysis

- Comprehensive introduction to offshore structure types and uses.
- Explanation of marine loading concepts and influencing factors.
- Basics of stress analysis in marine environments.
- Overview of SACS interface and core tools.
- Steps to set up an initial analytical model.
- Discussion of real-life case studies illustrating practical challenges.

Day Two: Modeling and Static Analysis

- Design of 3D engineering models using SACS.
- Defining material properties and specifications.
- Input and analysis of vertical and horizontal loads.
- Evaluating structure behavior under normal operating conditions.
- Using advanced tools to analyze structural stability.
- Practical exercise on building and analyzing a simple model.

Day Three: Dynamic Analysis and Seismic Response



- Introduction to dynamic analysis fundamentals for offshore structures.
 - Analysis of environmental effects like waves and marine currents.
 - Evaluation of structural response to earthquakes and vibrations.
 - Integrating dynamic and static analysis for optimized designs.
 - Disaster scenario analysis and impact assessment.
-
- Workshop on a complex case study.

Day Four: Structural Assessment and Safety

- Principles of offshore structural safety assessment.
- Methods for detecting design flaws and deviations.
- Developing preventive maintenance plans based on analysis results.
- Using SACS outcomes to enhance operational strategies.
- Discussion of regional project case studies.
- Practice on preparing safety reports and recommendations.

Day Five: Advanced Applications and Future Techniques

- Introduction to sustainable design concepts in offshore structures.
- Overview of AI technologies and their role in design optimization.
- Long-term effects analysis on offshore structures.
- Comprehensive review of previous modules.
- Discussion on global innovations in offshore design.
- Final comprehensive assessment and discussion of course outcomes.

Why Attend This Course: Wins & Losses!

- Enhance analytical and design skills using advanced techniques.
- Improve eligibility for professional certifications in offshore engineering.
- Strengthen decision-making capabilities in large-scale projects.
- Apply newly acquired knowledge directly to work environments.
- Gain practical experience through exercises and case studies.
- Support organizational strategic goals through skill development.
- Contribute to better institutional performance and productivity.
- Stay updated with global trends and emerging technologies.

Conclusion

The Offshore Structures Analysis and Design Using SACS System course offers an ideal opportunity for executives, team leaders, and professionals seeking to advance their offshore structural analysis and design capabilities. With its practical, systematic content, the course empowers participants to tackle daily challenges confidently and effectively. By covering essential topics and hands-on applications, trainees acquire directly applicable skills that positively impact organizational performance and productivity. The course focuses on equipping participants with advanced tools and innovative methods to lead projects more efficiently and support strategic organizational objectives. By the end of the course, attendees will be fully prepared to adapt to rapid

PARTNER





changes in the market and implement global best practices in offshore engineering. This program represents a genuine investment in human capital development and helps build high-performing engineering teams capable of achieving sustainable excellence.

Head Office: +44 7480 775 526
Email: Sales@blackbird-training.com
Website: www.blackbird-training.com



Blackbird Training Clients



MANNAI Trading
Company WLL,
Qatar



Alumina Corporation
Guinea



Booking.com
Netherlands



Oxfam GB International
Organization,
Yemen



Capital Markets
Authority,
Kuwait



Waltersmith Petroman Oil Limited
Nigeria



Qatar National Bank
(QNB),
Qatar



Qatar Foundation,
Qatar



AFRICAN UNION ADVISORY
BOARD ON CORRUPTION,
Tanzania



KFAS
Kuwait



Reserve Bank of
Malawi,
Malawi



Central Bank of Nigeria
Nigeria



Ministry of Interior
Kingdom of Saudi Arabia
KSA



Mabruk Oil Company
Libya



Saudi Electricity
Company,
KSA



BADAN PENGELOLA
KEUANGAN Haji,
Indonesia



NATO
Italy



ENI CORPORATE
UNIVERSITY,
Italy



Gulf Bank
Kuwait



المؤسسة العامة للتأمينات الاجتماعية
General Organization for
Social Insurance
KSA



Defence Space Administration
Nigeria



National Industries
Group (Holding),
Kuwait



Hamad Medical
Corporation,
Qatar



USAID
Pakistan



STC Solutions,
KSA



North Oil company,



EKO Electricity



Oman Broadband



UNITED NATIONS
UN.



هيئة تنظيم الكهرباء - عمان
Authority for
Electricity Regulation, Oman

UK Training
PARTNER



Blackbird Training Categories

Management & Admin

Entertainment & Leisure
Professional Skills
Finance, Accounting, Budgeting
Media & Public Relations
Project Management
Human Resources
Audit & Quality Assurance
Marketing, Sales, Customer Service
Secretary & Admin
Supply Chain & Logistics
Management & Leadership
Agile and Elevation

Technical Courses

Artificial Intelligence (AI)
Sustainability, ESG & Corporate Responsibility
Advanced Courses
Hospital Management
Public Sector
Special Workshops
Oil & Gas Engineering
Telecom Engineering
IT & IT Engineering
Health & Safety
Law and Contract Management
Customs & Safety
Aviation
C-Suite Training

