EGR 281: Offshore Safety and Survival

This course covers safe working practices for the offshore industry and especially for working with offshore wind turbines. Centered around Health, Safety and Environment (HSE) practices and regulations, the course discusses the basic and advanced-level safety issues, examines case studies in rescue and first aid, and identifies skill sets needed for activities such as climbing, blade repair, handling of fire, identification of hazards, and manual handling. The course aims to provide comprehensive coverage of topics needed for industry-prevalent certification. Three lecture hours and three laboratory hours per week. Instructional Support Fee applies.

Course Student Learning Outcomes

1. Demonstrate an overall understanding of the need for HSE regulations, emergency safety procedures, and safe working practices in relation to offhsore wind turbines industry. This includes identifying safety-related challenges in varied work environments. 2. Develop strategies and practices for working safely with offshore wind turbines and demonstrate this understanding in case studies. 3. Identify hazards associated with working in offshore wind turbines including but not limited to working at heights, working with high power generating machinery and heavy rotating equipment, in offshore environment. 4. Demonstrate an understanding of the capabilities and limitations of different safety equipment (harness, lanyards, arrestors, etc.) under varied working conditions. 5. Identify the hazards posed by fire and demonstrate awareness of strategies to deal with the fire originating from different sources. 6. Demonstrate knowledge and skillsets needed for survival in an offshore location in either a simulated environment of as a written assignment around a case study.

Credits: 4

Program: Engineering