

Course Table

Course Name	Basic Safety Training (BST)	
Intro.	According to the Safety Guidelines of Offshore Wind Power Marine Operations published by the Occupational Safety and Health Administration (OSHA) of the Ministry of Labor, personnel engaged in sea area operations of offshore wind power are required to obtain valid certificates for the five modules of GWO Basic Safety Training (BST) to ensure that operators can respond to the hazards of offshore operations.	
Course Days	6 days	
Course Outline	1 st ~2 nd day	<u>Working at Heights (WAH)</u> The aim of this module is to qualify the participants, through theoretical and practical training, to use basic personal protective equipment and perform safe work at heights and safe and comprehensive basic rescue from heights in a remote wind turbine environment.
	3 rd day (morning)	<u>Fire Awareness (FAW)</u> The aim of this course is to give the Participants the basic knowledge and skills through theoretical and practical training. Participants should be able to prevent fires, make appropriate judgements when evaluating a fire, manage evacuation of personnel and ensure all are safely accounted for in the event of an unmanageable fire.
	3 rd day (afternoon)	<u>Manual Handling (MH)</u> The aim is to encourage positive Manual Handling and ergonomic behaviour, encourage participants to consider alternatives to manual handling through planning and to train participants ability to perform Manual Handling tasks in a safe manner in the wind turbine industry/ environment.
	4 th day	<u>Sea Survival (SS)</u> By theoretical and practical training to give the participants the ability to act safely and take the correct preventive actions in all aspects of offshore operations from shore to installation vessel or WTG and vice versa, both during normal operation and in an emergency in an offshore wind energy environment.
	5 th ~6 th day	<u>First Aid (FA)</u> The aim is to enable Participants to administer safe and effective First Aid in the wind turbine industry/ WTG environment, in accordance with GWO First Aid training through theoretical and practical training. Furthermore, this training will enable the delegate to perform cardiopulmonary resuscitation (CPR) and use an automated external defibrillator (AED).
Certificate (2 years validity)	WAH 、 MH 、 FAW 、 SS 、 FA	
Notes	<ol style="list-style-type: none"> Please wear neat and comfortable clothes and sports shoes (MTIC) to participate in the course, and follow the instructions of the lecturer to wear safety equipment and perform various operating procedures. Please wear long trousers for the Working at Height ; if participants weighing more than 120 kg are not allowed to participate in the WAH, SS and ART course. The Sea Survival course content includes the training of participants wearing life jackets at sea without life-saving equipment, please bring the swimming suit or light clothing with you. In order to protect intellectual property rights, audio and video recording are prohibited throughout the course. 	

* MTIC reserves the right to make adjustments to the courses.

Course Table

Course Name	Basic Technical Training (BTT) 1~3	
Intro.	Provides basic knowledge and skills required for wind turbine maintenance, participants would be able to recognize the hazards and risks of the task, and be able to take safe working steps and use personal protective equipment correctly.	
Course Days	5 days	
Course Outline	1 st ~2 nd day	Mechanical Explain the main components, mechanical systems and the basic operation of wind turbines, and risks and hazards associated with mechanics. Understand the principles of bolted and welded connections and their inspection. Demonstrate practical skills to use the main tools and safety guards in daily work.
	3 rd ~4 th day	Electrical - Explain the basics of electricity, the function and symbol of electrical components, and the different types of sensors. - Explain risks and hazards associated with electrical work. Teach and interpret a simple electrical diagram and demonstrate how to assembly it on a circuit and how to make correct and safe measurements.
	5 th day	Hydraulics The hydraulic system is one of the main components of the wind turbine control system. The aim is to explain the basics of hydraulics, the system composition and operation principles. Introduce how to identify and operate the basic hydraulic components and tools, as well as the teaching of safety protection measures and daily maintenance skills of the hydraulic system.
Certificate <small>(no expiration limit)</small>	BTTM、BTTE、BTTH	
Notes	1. Please wear neat and comfortable clothes and sports shoes (safety boots are recommended) to participate in the course, and follow the instructions of the lecturer to wear safety equipment and perform various operating procedures. 2. In order to protect intellectual property rights, audio and video recording are prohibited throughout the course.	

* MTIC reserves the right to make adjustments to the courses.

Course Table

Course Name	Basic Technical Training (BTT) 4
Intro.	<ul style="list-style-type: none"> ➤ Provide participants the basic knowledge and techniques for performing wind turbine installation tasks, understanding the related hazards and risks, and taking safety measures. After completion of this the training, participants would be able to perform the task under supervising. ➤ Mastering how to install and move the equipment, avoid accidents of falling and safe work during lifting operations, and using electric or hydraulics tools under the instructor.
Course Days	3 days
Course Outline	<p><u>Installation</u></p> <p>The aim of this GWO BTT Standard Installation Module is to give the participants the knowledge and skills to carry out basic tasks (supervised by an experienced technician). The module is designed so wind turbine technicians can:</p> <ul style="list-style-type: none"> • Identify the main installation activities and explain the overall risks and hazards associated with the installation environment • Explain the checklist system throughout the complete installation process • Explain the characteristics of the installation environment • Explain the principles and standards for handling and storing goods and components onsite or within a storage area before and after installation • Explain the basic principles of the lifting equipment • Explain the basic preparation of main components before installation • Explain the basic mechanical completion • Demonstrate how to perform the basic electrical completion including the principles and standards for handling and installing cables • Explain the basic hydraulic completion • Explain the principles of operating external generators during installation • Explain the basis of how to do a handover to commissioning
Certificate <small>(no expiration limit)</small>	BTTI
Notes	<ol style="list-style-type: none"> 1. Qualifications: participants who have obtained a valid license for the GWO BTT Mechanical module (BTTM). 2. Please wear neat and comfortable clothes and sports shoes (safety boots are recommended) to participate in the course, and follow the instructions of the lecturer to wear safety equipment and perform various operating procedures. 3. In order to protect intellectual property rights, audio and video recording are prohibited throughout the course.

* MTIC reserves the right to make adjustments to the courses.

Course Table

Course Name	Slinger Signaller (SLS)
Intro.	<ul style="list-style-type: none"> ➤ Contents are Signaling and slinging; in order to reduce the risk of offshore wind power lifting operations, the aim is to acknowledge the roles, responsibilities and division of labor for hoisting operations, so that participants have sufficient knowledge and skills to complete the assigned lifting tasks. ➤ In the basic lifting operations, participants will be able to carry out slinging technique and signaling, to be familiar with the operation process and related hazards known in the environment, actual operation practical and assessments.
Course Days	2 days
Course Outline	<ul style="list-style-type: none"> • Attaching and detaching the load to and from the crane lifting attachment. • Initiating and directing the safe movement of the crane, including multiple slinger signallers during limited or blind lifts. • Adhering to their role and responsibilities during the lift. • Conducting visual pre and post inspection on lifting accessories and load. • Handling of lifting accessories. • Ensuring safe lift-off and lay down of the load. • Slinging/rigging various types of load, based on weight, centre of gravity, shape and size. • Carrying out generic routine lifts in accordance with the lift plan. • Complying with instruction/procedures set up by the employer to manage lifting. • Ensuring that equipment is properly used, maintained and defects reported.
Certificate <small>(no expiration limit)</small>	SLS
Notes	<ol style="list-style-type: none"> 1. Please wear neat and comfortable clothes and sports shoes (safety boots are recommended) to participate in the course, and follow the instructions of the lecturer to wear safety equipment and perform various operating procedures. 2. The practice exercise of this course is conducted outdoors. Please take sun protection measures, drink enough water, and bring towels, hats, sleeves, sunscreen and other related items. 3. In order to protect intellectual property rights, audio and video recording are prohibited throughout the course.

* MTIC reserves the right to make adjustments to the courses.

Course Table

Course Name	Advanced Rescue Training (ART)
Intro.	Participants will learn how to use the rescue kit in a turbine and make a rescue plan. This course aims at the primary rescue and evacuation in the turbine, elevating the skill level from the WAH module of a rescuer.
Course Days	3 days
Course Outline	<p>The training consists of two main modules and a single rescuer version of each:</p> <ul style="list-style-type: none"> □ Nacelle, Tower & Basement Rescue (ART-N) □ Hub, Spinner & Inside Blade Rescue (ART-H) □ Single Rescuer - Nacelle, Tower, Basement (SART-N) □ Single Rescuer - Hub, Spinner & Inside Blade (SART-H) <p>Main points:</p> <ul style="list-style-type: none"> ➤ Assess and determine rescue strategy for various rescue scenarios in a WTG hub, spinner and inside a blade, and attend to a clear and preferred evacuation route for the injured person outside or inside the tower ➤ Assess and determine rescue strategy for various rescue scenarios, from the nacelle, tower or basement of a WTG, and select relevant rescue method, technique, certified equipment, and required personnel. ➤ Transport an injured person horizontally over the length of the turbine, with the use of industry rescue equipment (zip line); Change directly from balancing an injured person from a horizontal position to a vertical configuration (and vice versa) when suspended; and when necessary, fit a harness and other PPE (e.g. helmet, safety glasses) onto an injured person. ➤ Using a rescue stretcher and spineboard, manually and power-driven operated lowering/raising rescue system for limited distance rescue (rescue device, pulley system or similar); or transport an injured person to a higher platform, using rescue up techniques and equipment in a controlled and secure manner.
Certificate <small>(2 years validity)</small>	ART-N 、 ART-H 、 SART-N 、 SART-H
Notes	<ol style="list-style-type: none"> 1. Qualifications: participants who have obtained valid certificates for the three modules of GWO BST Working at Heights (WAH), First Aid (FA), and Manual Handling (MH). 2. Please wear long trousers for the Working at Height ; if participants weighing more than 120 kg are not allowed to participate in the WAH, SS and ART course. 3. Please wear neat and comfortable clothes and sports shoes (safety boots are recommended) to participate in the course, and follow the instructions of the lecturer to wear safety equipment and perform various operating procedures. 4. In order to protect intellectual property rights, audio and video recording are prohibited throughout the course.

* MTIC reserves the right to make adjustments to the courses.

Course Table

Course Name	Enhanced First Aid (EFA)
Intro.	The aim of the module is to enable the Course Participants to support and care for others working in the industry by possessing the knowledge, skills and attitude of Enhanced First Aid. Upon completion of the GWO EFA Course Participants will be able to administer safe, effective and immediate lifesaving and enhanced first aid measures to save lives and give assistance in remote areas using advanced emergency equipment and medical teleconsultation.
Course Days	3 days
Course Outline	<ul style="list-style-type: none"> • Local legislation/risks/hazards and demands to ensure knowledge of the roles, responsibilities and rules that apply to Enhanced First Aid in Remote Areas. • The importance of carrying out basic and enhanced First Aid in a safe and sound manner, in accordance with the legislative requirements of their geographic location and according to European Resuscitation Council (ERC) and American Heart Association (AHA) guidelines. • Identifying and explaining normal function, normal signs and symptoms of serious and minor injuries and illness related to the human body. • Demonstrating understanding and correct order of management in an emergency situation in a Wind Turbine Generator (WTG) environment. • Delivering immediate enhanced first aid to stabilise the casualty. • Assessing the casualty, for injury or acute illness, to determine if medical advice and external-to-incident support is required. • Requesting telemedical consultation (or immediate) and medical/rescue assistance providing a concise and relevant report of the casualty's condition and obtaining medical advice. • Preparing the casualty for transfer to nominated evacuation/rescue point. • Acting as a leader in first aid situations. • Administering safe, effective and immediate lifesaving and enhanced first aid measures to save life and give assistance in remote areas using advanced emergency equipment and medical teleconsultation, while having particular regard for personal-protection.
Certificate <small>(2 years validity)</small>	EFA · FA
Notes	<ol style="list-style-type: none"> 1. Please wear neat and comfortable clothes and sports shoes (safety boots are recommended) to participate in the course, and follow the instructions of the lecturer to wear safety equipment and perform various operating procedures. 2. The clothes may be soiled during this course, so participants are requested to wear suitable clothes. 3. In order to protect intellectual property rights, audio and video recording are prohibited throughout the course.

* MTIC reserves the right to make adjustments to the courses.

Course Table

Course Name	Blade Repair (BR)
Intro.	<p>Participants will learn how to perform and record the inspection of wind turbine blades. Repairs are carried out in accordance with the work instruction, while maintaining the structural integrity of the glass fiber.</p> <p>The GWO blade repair training course is intended as an entry level course and therefore the participant will not be expected to perform repairs in major structural elements of blades like spars, spar caps and carbon fibre.</p>
Course Days	10 days
Course Outline	<p>Explain typical types of composite construction, materials and the importance of surface finish relating to aerodynamic performance and efficiency. Demonstrate the ability to work safely with applicable chemicals while utilizing the applicable personal protective equipment in a controlled manner throughout all phases of composite inspection and repair work.</p> <p>The participant will be able to perform and document a wind turbine blade inspection, execute repair work in accordance with a work instruction while maintaining the aerodynamic profile and structural integrity in glass fibre reinforced composite parts of a wind turbine within the following dimensions:</p> <ul style="list-style-type: none"> • Trailing edge repairs up to 1,5 m in length • Leading edge repairs up to 1,5 m in length • Laminate repairs down to core material • Core material replacement up to 200 cm² • Surface repair to paint and gelcoat
Certificate <small>(no expiration limit)</small>	BR
Notes	<ol style="list-style-type: none"> 1. Please wear neat and comfortable clothes and sports shoes (safety boots are recommended) to participate in the course, and follow the instructions of the lecturer to wear safety equipment and perform various operating procedures. 2. In order to protect intellectual property rights, audio and video recording are prohibited throughout the course.

* MTIC reserves the right to make adjustments to the courses.