

2018年海洋開発サマースクール スコットランド クラススケジュール

“Offshore Engineering Summer School” (2018年4月9日現在) 場所: Robert Gordon University

日にち	内容	
8/10	現地集合・安着確認	
8/11 (土)	<p data-bbox="295 376 2139 432">Orientation & English Language Refresher Class</p> <ul data-bbox="295 432 2139 807" style="list-style-type: none"> ● Students will take part in an orientation day which will prepare them for living in Aberdeen for the 4-week programme. In the morning, students will embark on a tour of Aberdeen city; they will learn about the history of Aberdeen and will gain practical advice to help them during their stay such as the location of the nearest supermarket, where to get the bus and the train and how to get to the university campus. During this tour, the students will be encouraged to practice using English. Students will then attend an English language refresher class in the afternoon in preparation for the start of the programme. ● An informal dinner will be organised for the Saturday evening to allow the students to meet some of the key staff who will be involved with the Summer School. 	
8/12 (日)	<p data-bbox="295 807 2139 863">Scottish Culture Workshop</p> <p data-bbox="295 863 2139 1129">The 'Scottish for Beginners' session will introduce the students to some of the differences that may exist between the English language they may be familiar with and the English that is spoken in Scotland. There will be particular focus on phrasing, speed and pronunciation as relates to the technical language that may be spoken in the classroom and during site visits. The session will then broaden out into a less formal and more wide-ranging discussion on Scottish culture, including conversation. The workshop will be followed by whisky tasting.</p>	
8/14	<p data-bbox="295 1129 1106 1185">Project Management Skills Part 1 プロジェクトマネジメント</p> <p data-bbox="295 1185 1106 1453">This course aims to promote an understanding of the principles, fundamental concepts and strategies of project management and planning. The course will be accompanied by a Project Management ebook which students will have access to prior to arriving.</p>	<p data-bbox="1106 1129 2139 1185"><u>Learning Outcomes</u></p> <ul data-bbox="1106 1185 2139 1453" style="list-style-type: none"> ● The basics of project management, including the project lifecycle and the interdependence of cost, quality and time.

		<ul style="list-style-type: none"> ● Analysis of the issues involved in the development of project planning with a focus on the scope, objectives and risk associated with the project. ● Develop and evaluate the Project Initiation Document and use appropriate tools and techniques in the management of a project.
	Presentation Skills Part 1 プレゼンテーションスキル	
	This course will guide students on how to effectively communicate ideas and demonstrating their understanding.	<u>Learning Outcomes</u> <ul style="list-style-type: none"> ● Undertake appropriate information retrieval and evaluation. ● Demonstrate an understanding of the aspects of an oral presentation including its purpose, delivery, the use of visual aids and preparation for “Q&As”.
8/15 -17	Offshore Oil and Gas Industry Overview Part 1 石油・天然ガス開発の流れ	
	This course provides students with a general awareness of the oil and gas industry. It outlines how oil and gas is formed and progresses on to detailed technology and operational topics. The course material is written by industry experts and is regularly reviewed to ensure it is up to date and relevant.	<u>Learning Outcomes</u> <ul style="list-style-type: none"> ● Apply fundamental geological concepts that will allow students to understand how hydrocarbon accumulations occur and how different reservoirs are formed. ● Provide an understanding of the nature of oil and gas. ● Explain the basic ingredients necessary for the formation of oil & gas ● Display a basic understanding of the roles of governments and companies in the petroleum industry. ● Acquire the fundamental vocabulary and understanding that will allow them to successfully communicate these concepts with industry participants.
	Introduction to Subsea Engineering サブシーエンジニアリング (導入)	
	This course covers the key areas in subsea engineering. The primary objective is to develop an understanding of	<u>Learning Outcomes</u> <ul style="list-style-type: none"> ● Provide an understanding of the nature of oil and gas.

	<p>how these key areas complement each other in the production of oil and gas.</p>	<ul style="list-style-type: none"> ● Explain the concept of subsea. ● Provide an overview of subsea production system. ● Provide an understanding of subsea field development. ● Provide an overview of decommissioning.
	Introduction to Drilling & Drilling Operations 掘削工学とオペレーション (導入と実習)	
	<p>This course provides an introduction to the drilling rig and an overview of drilling operations. Students will continue to learn about drill bits, drill string components and tools. This course will involve classroom- based work before students will begin practical training in RGU’s drilling simulator. This will commence with a demonstration by the tutor and then the students will have the opportunity.</p>	<p><u>Learning Outcomes</u></p> <ul style="list-style-type: none"> ● Continue to acquire knowledge of rig equipment, drill bits, drill string components and tools. ● Discuss elements of drilling operations and carry out various calculations.
8/18(土)	<p>エクスカージョン (予定：ウイスキー蒸溜所、古城、ハイランドゲーム等)</p>	
8/19(日)		
8/20	Project Management Skills Part 2	
	<p>This course aims to promote an understanding of the principles, fundamental concepts and strategies of project management and planning.</p>	<p><u>Learning Outcomes</u></p> <ul style="list-style-type: none"> ● The basics of project management, including the project lifecycle and the interdependence of cost, quality and time. ● Analysis of the issues involved in the development of project planning with a focus on the scope, objectives and risk associated with the project. ● Develop and evaluate the Project Initiation Document and use appropriate tools and techniques in the management of a project.
8/21	Renewable Energy: Marine 海洋再生可能エネルギー：海洋エネルギー	
	<p>This course provides students with a general awareness of marine renewables. It provides information on wave and</p>	<p><u>Learning Outcomes</u></p>

	tidal energy. It starts with a discussion of what waves and tides are and progresses to describing how energy can be extracted from these resources. Present technology for extracting energy from waves and tides is also discussed.	<ul style="list-style-type: none"> ● Estimate the wave and tidal energy resource available at sites. Understand the processes for extracting energy from waves and tidal currents. ● Critically analyse the designs of existing wave and tidal energy devices. ● Acquire the vocabulary and understanding to successfully communicate these concepts to industry participants.
8/22	Visit to the Hywind Scotland Pilot Park ! ! ! ! *日本人学生による見学は初！ Students will visit the Hywind Scotland Pilot Park in Peterhead, north of Aberdeen. This visit will include an offshore visit via boat to the installation. The offshore visit is weather dependent.	
8/23	Offshore Oil and Gas Industry Overview Part 2 Students will study exploration, appraisal and production wells and will look at design and construction of wells. This course will emphasise the planning of downhole well completion, equipment and related operational processes.	
		<u>Learning Outcomes</u> <ul style="list-style-type: none"> ● Gain a general understanding of exploration and production processes. ● Discuss the fundamentals of well testing, including the purpose of well tests and current techniques for well testing.
8/24	Renewable Energy: Wind 海洋再生可能エネルギー：風力 Students will study the history of capturing wind to do work and the global wind energy resource. This course will emphasise wind turbine design and operation, environmental factors and the cost of wind energy.	
		<u>Learning Outcomes</u> <ul style="list-style-type: none"> ● Historical uses of wind energy and the wind energy resource. ● Wind turbine design and performance. ● Wind turbine generation technologies. ● Environmental impact assessment and wind power economics.
8/25(土)	エクスカージョン (予定：ウイスキー蒸溜所、古城、ハイランドゲーム等)	
8/26(日)		
8/27-29	BOSIET Training (洋上サバイバルトレーニング、資格取得) This course is referred to as 'Offshore Survival'. It's an OPITO approved, 3-day Combined BOSIET with	
		<u>Learning Outcomes</u>

	<p>Emergency Breathing System(EBS)&Compressed Air Emergency Breathing System(CA-EBS). It will equip students with the basic emergency response knowledge and skills for travelling to and from offshore installations by helicopter, with the use of EBS and CA-EBS emergency equipment. This course is a mix of theoretical and practical sessions.</p>	<ul style="list-style-type: none"> ● Have a knowledge of offshore hazards and control measures, offshore safety management, how offshore safety is regulated, and living and working in the offshore environment. ● Understand the processes involved in helicopter travel and be competent in their ability to escape from a helicopter in an emergency situation. ● Have knowledge of what to do in an evacuation situation. ● Understand what is meant by emergency first aid and how to assist in a first aid situation prior to arrival of the medic.
8/30	Introduction to Decommissioning 石油・ガス施設の解体・撤去（導入）	
	<p>This course will provide the students with an introduction to the work scope of decommissioning mature uneconomic offshore petroleum fields. It will cover the regulations, planning and logistics of removal and dismantling platforms, rigs, jackets, pipeline and subsea equipment.</p>	<p><u>Learning Outcomes</u></p> <ul style="list-style-type: none"> ● Knowledge of regulatory-compliant decommissioning project phases from late life production to onshore disposal of the equipment. ● Awareness of the legislation pertaining to decommissioning projects and considerations required in planning and HSSE aspects.
8/31	Decommissioning, Plugging and Abandonment 石油・ガス施設の解体・撤去（実習）	
	<p>This course will familiarise students with plugging and abandonment of uneconomic oil and gas wells by addressing the well integrity and barriers function concept, cementing and other plugging technologies, evaluation of the plugs integrity and operational procedures of isolating producing and high risk zones permanently. RGU's DrillSim 5000 simulator will enable students to observe the operational procedure of setting a plug over a producing</p>	<p><u>Learning Outcomes</u></p> <ul style="list-style-type: none"> ● Knowledge of necessity and procedure of design and implementation of an acceptable Plugging and Abandonment project including associated planning, cost analysis and risk assessment. ● Visualise a real operational procedure of plugging and understand how to deal with unexpected challenges through milling, cement squeeze and other field techniques.

	zone, including managing some of the potential operational challenges.	
9/1(土)		
9/2(日)		
9/3	<p>ROVOP Site Visit 海中ロボット企業訪問</p> <p>This will include a visit to the ROV Simulator at ROVOP. This will enhance the students' practical knowledge and let them gain some hands-on experience. On return to the university the students will be introduced to RGU's ROV tank.</p> <p>RGU ROV Training ROV オペレーション演習</p> <p>This will build on the visit to ROVOP and will enhance the knowledge and utilisation of ROVs. An industry speaker from All Oceans Engineering will join the training course to further compliment the subject area.</p>	<p><u>Learning Outcomes</u></p> <ul style="list-style-type: none"> ● Understand the capabilities of a small eyeball vehicle and how it is used in industry applications. ● Develop fine vehicle control skills. ● Understand basic subsea navigation techniques. ● Use gained skills to perform set tasks.
9/4	現地の日本企業訪問 (2-3 社)	
9/5	Presentation Skills Part 2	
	This half day will be dedicated to practicing oral project presentations and to make final preparations with their RGU Mentors. RGU staff will be available to answer any last minute questions and provide advice and guidance to students.	
9/6	調査プロジェクト発表準備日	
9/7	調査プロジェクト発表・修了式	
9/8(土)	現地解散	

※現地学生交流/企業訪問については一部調整中

※このクラススケジュールは現地の状況を踏まえ、予告なく変更する可能性があります。