



ONLINE SUMMER SCHOOL

# OIL AND GAS IN ENERGY INDUSTRY

July 20 – August 01, 2020

LEARN MORE ABOUT OIL AND GAS TRENDS AND PETROLEUM INDUSTRY, JOIN THIS ONLINE SUMMER SCHOOL!

ECTS credits: 4.0



**POLYTECH**

Peter the Great  
St. Petersburg Polytechnic  
University



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## BRIEF DESCRIPTION

The course provides a comprehensive overview of the oil and gas industry from upstream exploration and production to downstream refining, pumping, sales and marketing. Participants will learn all the subtleties of the processes and technologies of viscous oil extraction, oil preparation and gas recovery under the supervision of leading Russian and International professors and experts. They will gain an appreciation of industry dynamics and the key issues affecting its development and future. This course will provide a thorough foundation for understanding the changing "Oil & Gas" industry dynamics. Participants will enjoy a hands-on experience through a variety of individual and team exercises and projects, with the opportunity to exchange views and skills with a diverse group of industry peers.

### **Costs:**

US\$450- includes registration, teaching costs, 4.0 ECTS credits Certificate, 40 hours online russian language course with ALAR's Certificate

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**Program dates:** July 20 – August 01, 2020

**Registration deadline:** July 04th, 2020

**Entrance requirements:**

-Good command of English. All classes and out-of-class activities are conducted in English.

-Knowledge of the Russian language is not required.

-Applicants are expected to have at least 2 year of University level studies.

**Program partners**

- Gazprom Transgaz
- Gazprom Neft
- Surgutneftegaz (Kirishi oil refinery)
- Branch of PJSC OGK-2 – Kirishskaya TPP

**Professors and lecturers**

SPbPU professors, leading international professors and guest speakers from companies

**Course and calendar description**

Please find attached curricula and calendar at the end of this document

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## OIL&GAS IN ENERGY INDUSTRY

<b>TIME</b>	<b>MON</b> JULY 20th	<b>TUE</b> JULY 21st	<b>WED</b> JULY 22nd	<b>THU</b> JULY 23rd	<b>FRI</b> JULY 24th	<b>SAT</b> JULY 25th	<b>SUN</b> JULY 26th
<b>10:00</b>	Petroleum characteristic and origin	Maturation and kerogen	Hydrocarbons traps  Reservoirs	Introduction to machine learning  Application in oil and gas industry	Application of machine learning techniques to geophysical well' log data		
10:15							
10:30							
10:45							
<b>11:00</b>							
11:15	Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break		
<b>11:30</b>	Organic matter and source rocks	Migration of Hydrocarbons	Unconventional Hydrocarbons	Introduction to machine learning  Application in oil and gas industry	Application of machine learning techniques to geophysical well' log data		
11:45							
<b>12:00</b>							
12:15							
12:30							
12:45							
<b>13:00</b>	Consultation	Consultation	Consultation	Consultation	Consultation		
13:15							
13:30							
13:45							
<b>14:00</b>	Cultural Programme: Lesson 1 *	Cultural Programme: Lesson 2*	Campus Tour	Cultural Programme: Lesson 3*	Cultural Programme: Lesson 4*		Cultural Programme: Lesson 5*
14:15							
14:30							
14:45							
<b>TBA</b>					Live-chat		Live-chat
<b>TBA</b>						White Nights Live	
* - Recommended timing for Cultural Programme						TBA - To Be Announced	



# OIL&GAS IN ENERGY INDUSTRY

TIME	MON JULY 27th	TUE JULY 28th	WED JULY 29th	THU JULY 30th	FRI JULY 31st	SAT AUG 1st	SUN AUG 2nd
<b>10:00</b>	Problems of petrophysics engineering regarding fluid filtration and poroelasticity solved with modern computer algebra systems	Introduction to Thermodynamics	Drilling fluids	Drilling fluids and drilling hydraulics  Casing design	Management & Safety		
10:15							
10:30							
10:45							
<b>11:00</b>							
11:15	Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break		
<b>11:30</b>	Problems of petrophysics engineering regarding fluid filtration and poroelasticity solved with modern computer algebra systems	Introduction to Thermodynamics	Drilling fluids	Cementing and cement job design	Management & Safety		
11:45							
<b>12:00</b>							
12:15							
12:30							
12:45							
<b>13:00</b>	Consultation						
13:15							
13:30							
13:45							
<b>14:00</b>	Cultural Programme: Lesson 6*	Sport Day	Cultural Programme: Lesson 7*	Cultural Programme: Lesson 8*	Cultural Programme: Lesson 9*		
14:15							
14:30							
14:45							
<b>TBA</b>			Live-chat		Closing Ceremony		
<b>TBA</b>						White Nights Live	
* - Recommended timing for Cultural Programme						TBA - To Be Announced	