

# Hydraulic Engineering

## Far Eastern Federal University

Degree or qualification is awarded: **Candidate of Sciences**

Language of study: **Russian**

Mode of study: **full-time, part-time**

Duration: **4 years**

Availability of free education: **yes**

Price: **320 000 rub per year (full-time) / 160 000 rub per year (part-time)**

Programme webpage at the university website:

<https://www.dvfu.ru/upload/medialibrary/a06/%D0%9F%D0%B5%D1%80%D0%B5%D1%87%D0%B5%D0%BD%D1%8C%20%D0%BF%D1%80%D0%BE%D0%B3%D1%80%D0%B0%D0%BC%D0%BC%20%D0%B0%D1%81%D0%BF%D0%B8%D1%80%D0%B0%D0%BD%D1%82%D1%83%D1%80%D1%8B,%20%D0%BE%D0%B1%D1%8A%D1%8F%D0%B2%D0%BB%D0%B5%D0%BD%D0%BD%D1%8B%D1%85%20%D0%B2%20%D0%BD%D0%B0%D0%B1%D0%BE%D1%80%202020%20%D0%B3%D0%BE%D0%B4%D0%B0.pdf>

Programme curator: **Artem Grachev**

Tel.: **+74232652424 (#2206)**

E-mail: [interadmission@dvfu.ru](mailto:interadmission@dvfu.ru)

The coastal and shelf zones of the Asia-Pacific region is the basis for the economic development of the Far East. The vast territory and at the same time the long coastline determine the importance of sea spaces and resources for this region. Changes in the coastline caused by urbanization processes, the construction of port facilities and the development of industrial infrastructure, as well as the development of offshore oil and gas fields on the shelf, are the main factors driving the growing demand of Asian countries for specialists in the field of marine coastal and offshore construction. For the sustainable development of a densely populated and intensively exploited coastal zone, effective management and an appropriate infrastructure are required, provided with competent, well-trained personnel in the hydraulic engineering specialty, primarily related to the development of the oil and gas complex, the oil refining industry, the development of a modern transport system and energy.

The development of the Sakhalin shelf and the shelf of the Arctic seas are the largest projects of interregional importance for the entire Far East and are already acting as a catalyst for economic activity on the entire Pacific basin and the eastern Arctic. The implementation of projects is associated not only with the development of oil and gas production, but also involves a wide range of work on the development of social, industrial and transport infrastructure, which will require the attraction of additional funds, human resources, etc.

In addition, the development of rich offshore oil and gas fields is carried out in water areas with severe hydrometeorological conditions and severe ice conditions, which requires the adoption of non-standard engineering and management decisions that are only possible for graduates of this program. The major global consumers of offshore and coastal offshore hydraulic engineering specialists are countries such as China, Japan, South Korea, Vietnam, Malaysia, Singapore, Indonesia, and others.

Thus, the postgraduate program "Hydraulic Engineering" is focused on training specialists combining the study of the theoretical foundations of construction science in the field of marine hydraulic engineering with the simultaneous formation of applied knowledge and skills that will allow them to work effectively in design and research organizations, institutes, and centers, in production, in higher education institutions, in expert consulting companies and government agencies. At the same time, the presence of a basic course is aimed at forming the worldview, general and professional culture of a modern highly educated

specialist. The disciplines of the variable part allow you to study advanced structures, materials and technologies of hydraulic engineering in the coastal zone of the seas, including those with ice cover; the presence of elective disciplines is focused on the transfer of current international experience in the design, construction and operation of hydraulic facilities on the shelf and coastal zone.

Promising places of employment for graduates are both Russian and foreign organizations, enterprises, universities and research institutes, for example, Far Eastern organizations: LLC Sakhalin Energy, Exxon Neftegaz Ltd., LLC SakhalinRNshelf, FESRC JCS, SSK Zvezda, LLC Vostokproektverf, institutes FEB RAS, DalNIIS RAASN; leading universities of the Russian Federation: FEFU, MGSU, St. Petersburg State Technical University, St. Petersburg State Technological Institute, Moscow State University. G.I. Nevelsky; leading research institutes of the Russian Federation: institutes of the Russian Academy of Sciences, AARI, N.I. acad. A.N. Krylova, Gazprom VNIIGAZ; domestic corporations: PJSC Rosneft, PJSC Gazprom, Rosatom, PJSC Novatek, PJSC RusHydro; foreign companies: Total (France), Statoil, Aker Solutions, Kvaerner, Multiconsult (Norway), Saipem (Italy), shipbuilding company Daewoo Marine Engineering and Shipbuilding (Korea); leading foreign universities and research centers: University of Helsinki, Aker Arctic (Finland), NTNU (Norway), Korea Institute for Ocean Research and Development (South Korea), Research Institute in Cold Regions, Hokkaido University, Kindai University (Japan), Harbin University of Technology, Dalian University of Technology, Wuhan University, Heilongjiang University of Science and Technology (PRC), University of Melbourne (Australia), Hong Kong University of Science and Technology (Hong Kong), Asian Institute of Technology (Thailand), Delft University of Technology (Netherlands), City University (UK), University of Massachusetts (USA) and others.

### **Specializations within this programme**