





# **DOUBLE DEGREE UNINORTE / UNIVERSITÉ DE NANTES**

## « CIVIL ENGINEERING AND MARINE TECHNOLOGY » Hybrid training program

This program is specialised in Maritime and Harbour Civil Engineering.

It is offered in cooperation with Nantes Université (France) to students enrolled from the Environment and Civil Engineering Department. Under this programme, students will be able to pretend to the following double degree:

- Uninorte « Pregrado »
- · Master's degree of Marine Technology (major in « Marine civil engineering ») of Nantes Université

#### **Academic offer**

### Year 1: Blended training program

At Uninorte during semesters 9 and 10, students attend to a mixed program, with half of the courses delivered by Uninorte and half delivered by Nantes Université through a e-learning program, corresponding to semesters 1 and 2 of the European Master's degree.

E-learning courses are developed by the Sea Sciences Digital University UN e-SEA. They are available on-line, through a platform which can be accessed with a computer, a tablet or a smartphone. Students study courses, events and resources, complete exercises and tests, take part to virtual teaching and projects, and submit their assignments and works.

# Year 2: Mobility program to Nantes Université - 2nd year of Master's degree in Marine Technology (major in « Marine civil engineering »).

Students attend to Semester 3 and 4 in France. Courses are delivered at the Saint-Nazaire Campus from September to February. At the end of Semester 4, from March to June, the professional or research internship is realised rather in France or in Colombia.

See reverse for more details.

### Applicant's profile

- Students registrated in Semester 8
- Level of French: B1 validated, B2 underway

### Training fees and registration regime

Students maintain their status as students in Uninorte during the whole program. Application form be submitted before 2023/04/30 (dowload here).

- For the courses delivered by Uninorte, fees are to be paid to Uninorte according to applicable usual rates.
- For the courses delivered by Nantes Université, fees are to be paid to Nantes Université according to applicable usual rates.

### More information:

In Colombia In France

Scientific coordination : Scientific coordination :

Andres Fernando Guzman Guerrero Pascal Rougeron

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Administrative coordination: E-learning coordination:

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# Year 1 - Blended learning

### Courses delivered by the University Del Norte

### Semesters 9 et 10

Course unit	Teaching hours
Professionnal elective 1*	48h
Philosophy elective*	48h
Humanities electives	48h
Social sciences electives	48h

<sup>\*</sup>To be chosen among « civil engineering » electives

## E-learning courses deliverd by Nantes Université

### Semesters 9

Course unit	Teaching hours
Calcul numérique pour l'ingénieur - Numerical calculation (MATLAB)	Eq. 28h
Béton armé, construction métallique, construction mixte suivant les Eurocodes - Structural design according to Eurocodes	Eq. 48h
Houle, Marée, Aménagement offshore - Maritime hydraulics and structure design	Eq. 48h

#### Semesters 10

Course unit	Teaching hours
Fiabilité - Reliability	Eq. 48h
Géotechnique marine - Marine geotechnics	Eq. 20h
Projet d'étude technique (Capstone design) - Capstone design technical project	Eq. 48h

# Year 2 - Mobility to Nantes Université

## Courses to be attended at Université de Nantes, according to the Master's curriculum

Course unit	
Ingénierie des prix - Price engineering	40 h
Maintenance des ouvrages et bâtiments - Maintenance of building and works	22 h
Management	18 h
Méthodes non destructives pour matériaux et structures - Non destructive methods for materials and structures	18 h
Pathologie des matériaux - Materials pathology	18 h
Génie parasismique - Earthquake engineering	12 h
Géotechnique : fondations superficielles et profondes - Geotechnics : shallow and deep foundations	36 h
Anglais pour la communication scientifique - English for scientific communication	10 h
Projet d'initiation à la recherche - Introduction to research : project	-
Ouvrages géotechniques - Geotechnic construction work	32 h
Projet technico-économique - Techno-economic project	40 h
Aménagement portuaire - Harbour design	38 h
Conception des ouvrages maritimes - Marine structure design	22 h
Méthodes de réalisation des ouvrages maritimes - Building methods for marine structures	44 h

Stage professionnel ou en laboratoire - Professional or research internship 4 to 6 months	S
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