

MARITIME ACTIVITIES AND MARINE SCIENCE

2009

Thanks to the importance of its EEZ (Exclusive Economic Zone), France is the third maritime power in the world, at least in terms of surface area: more than 11 million km² along 7000 km of coast, including its metropolitan and overseas regions. The sea's importance on France's economy comes from three sectors: tourism, fishing (and aquaculture), and the processing of sea products. Close to 400,000 people—160,000 alone from the tourism industry—make their living from the sea.

Even though the transport of passengers and merchandise under national colors has in large part been abandoned, France's ports, through which most products are imported or exported, have enjoyed a renaissance as they are adapted to international norms: acceptance of super-tankers, increased automation of the loading-offloading process, and improvement of the infrastructures linking them to the rest of Europe.

See also the files concerning *Agronomy, Architecture, Sustainable Development, Law, Hotel Business and Tourism, International Relations, Political Science, and Engineering Sciences.*

ORGANIZATION OF STUDIES IN FRANCE

Although naval construction in France struggles to compete at an international level, numerous prestigious universities and institutes continue to educate the engineers who design ships and carry out their construction. Moreover, as the world leader in the manufacture of both sailboats and inflatable boats, France exports 40% of its maritime production. Its coasts, where an increasing segment of the population lives, even outside of the tourist season, have also become an environment threatened by urbanism. The fishing industry suffers as well from the scarcity of available resources, attributed to the industrial overexploitation of the oceans. Aquaculture, therefore, is one of the answers to this challenge. The sea, as a place of leisure and discovery, a bounty of numerous-yet-fragile resources, and unfortunately a source of conflicts only partly protected by law, provides numerous and varied employment opportunities.

NB: - Specialization in Oceanography exists starting principally at the Master level or as an option in the final year at some engineering schools. Most of the educational training listed below is related to jobs in the maritime environment, but rarely for employment on ships—unless perhaps as researchers aboard scientific vessels.

Universities

Short educational courses (two years)

IUT (Instituts Universitaires de Technologie) in Aix-Marseille 1, Caen, Clermont-Ferrand 1, Corse, Bretagne occidentale, Tours, Saint-Etienne, Metz, du Littoral, Perpignan, Strasbourg 1, Toulon and Var, Nantes, La Réunion.

- Université du Littoral Côte d'Opale, <http://www.univ-littoral.fr>

Bachelor, Professional and Master degrees

Marine science and environmental science

- Aix-Marseille 2, <http://www.univmed.fr>
- Bordeaux 1, <http://www.u-bordeaux1.fr>
- Bretagne occidentale, <http://www.univ-brest.fr>
- Bretagne Sud, Lorient et Vannes, <http://www.univ-ubs.fr>
- Caen, <http://www.unicaen.fr>
- Corse, <http://fst.univ-corse.fr>
- ENS (Ecole Normale Supérieure) Paris, in partnership with Paris 6, Paris 7, Paris 11, Cergy-Pontoise, Versailles-Saint-Quentin, <http://www.ens.fr>
- Joseph Fourier, Grenoble, <http://www.ujf-grenoble.fr>
- Lille 1, <http://www.univ-lille1.fr>
- Littoral Côte d'Opale, <http://www.univ-littoral.fr>
- Le Mans, <http://www.univ-lemans.fr>
- Lyon 1, <http://www.univ-lyon1.fr>
- Paris 6, <http://www.upmc.fr>
- Perpignan, <http://www.univ-perp.fr>
- La Rochelle, <http://www.univ-lr.fr>
- Rouen, <http://www.univ-rouen.fr>
- Sud Toulon-Var, <http://www.univ-tln.fr>
- Toulouse 3, <http://www.ups-tlse.fr>

Marine economy and the exploitation of marine resources

- Bretagne occidentale, <http://www.univ-brest.fr>
- Bretagne Sud, Lorient et Vannes, <http://www.univ-ubs.fr>
- Caen, <http://www.unicaen.fr>
- Montpellier 2, <http://www.univ-montp2.fr>
- Montpellier 3, <http://www.univ-montp3.fr>
- Nantes, <http://www.univ-nantes.fr>
- Sud Toulon-Var, <http://www.univ-tln.fr>

Law, organization/management and control of the marine environment

- Bretagne occidentale, <http://www.univ-brest.fr>
- Le Havre, <http://https://www.univ-lehavre.fr>
- Lille 2, <http://www.univ-lille2.fr>
- Littoral Côte d'Opale (Dunkerque), <http://www.univ-littoral.fr>
- Lyon 3, <http://www.univ-lyon3.fr>
- Nantes, <http://www.univ-nantes.fr>
- Université du Sud Toulon-Var, <http://www.univ-tln.fr>

Specialized institutes

- INTECHMER (Institut national des sciences techniques de la mer), Cherbourg, <http://www.intechmer.cnam.fr>

Architecture and Engineering schools

Oceanography

- ISITV, Institut des sciences de l'ingénieur de Toulon et du Var (Institute of Engineering Sciences of Toulon and the Var), <http://isitv.univ-tln.fr>

Shipbuilding

- École d'architecture de Nantes-Atlantique, <http://www.archi-navale.nantes.archi.fr>
- ENSIETA, École nationale supérieure des ingénieurs des études et techniques d'armement de Brest, <http://www.ensieta.fr>
- ENSTA, École Nationale Supérieure de Techniques avancées, <http://www.ensta.fr>

Marine engineering

- École Centrale de Nantes, <http://www.ec-nantes.fr>
- École Centrale de Marseille, <http://www.ec-marseille.fr>
- ENSAM, École nationale Supérieure des Arts et Métiers, Angers (in partnership with the École navale), <http://www.angers.ensam.fr>
- INPG, Institut National Polytechnique de Grenoble, <http://www.hmg.inpg.fr>

Production

- Agrocampus Rennes, <http://www.agrocampus-rennes.fr>

Merchant marine officer academies

Placed under the supervision of the Ministry of the Sea, these academies prepare merchant marines for the international certificates necessary for navigation. The admission of foreign nationals (outside of the European Union) into these four (4) academies depends on the agreement made with the merchant marine authorities of the candidates' country of origin, the obtainment of an assured scholarship (admission fees + living expenses), and the successful completion of a competitive examination or entry exam.

Transport and management

- EMM (merchant marine academy) Marseille, in partnership with EUROMED, <http://www.hydro-marseille.com>

Fishing, quality, security, trainer education

- EMM (merchant marine academy) Nantes, <http://www.hydro-nantes.org>

Port activities

- EMM (merchant marine academy) Le Havre, <http://www.hydro-lehavre.fr>

Professional pleasurecraft/yachting

- EMM (merchant marine academy) Saint-Malo, <http://www.hydrosaintmalo.fr>

► Websites

Research activities

- CNRS (National Center for Scientific Research, INSU, Institut National des Sciences de l'Univers, relevant to environmental, coastal, and oceanic research), <http://www.insu.cnrs.fr>
- IFREMER, Institut Français de Recherche pour l'Exploitation de la Mer (French Research Institute for Exploration of the Sea), <http://www.ifremer.fr>
- IPEV, Institut Polaire français (French Polar Institute) Paul-Emile-Victor, <http://www.ipev.fr>
- SEANERGIE, center for competitiveness uniting the Brittany and Provence-Alpes-Côte d'Azur regions, <http://www.toulonnais.com/pole-competitivite-toulon.html>
- APMM, Association pour la Promotion des Métiers de la Mer, <http://www.metiersdelamer.com>
- CGG, Compagnie Générale de Géophysique : <http://www.cgg.com>
- CEVA, Centre d'Études et de Valorisation des Algues, documentary funds, international databases <http://www.ceva.fr>
- COMEX SA, World largest marine engineering, technologies, and operations company, <http://www.comex.fr>
- INPP, Institut National de Plongée Professionnelle, professional training for workers in the aquatic and hyperbaric fields, <http://www.inpp.org>
- IRD Editions (research and development institute), <http://www.editions.ird.fr>
- Minister of Transportation, Equipment, Tourism, and the Sea <http://www.mer.equipement.gouv.fr>
- OFIMER, Office National Interprofessionnel des Produits de la Mer et de l'Aquaculture, <http://www.ofimer.fr>
- TECHNIP, one of the 5 worldwide offshore engineering groups, <http://www.technip.com>

► Keywords

aquaculture - biochemistry - biodiversity - chemistry - civil engineering - climate - commercialization - coastal engineering - coastal management - conversion - culture - ecosystem - electronic - environment - fisheries - geologic engineering - geosciences - history - instrumentation - law - logistics - management - mechanics - meteorological measuring - oceanography - physiological chemistry - physics - processing - resources - signals/signaling - sport - sustainable development - system - teledetection