

## UNIVERSIDADE DE AVEIRO

Created in 1973, the University of Aveiro has quickly become one of the most dynamic and innovative universities in Portugal. As a public foundation operating under private law, it develops its mission to provide undergraduate and postgraduate education, to generate research and to promote cooperation with society. UA has achieved a significant position amongst higher education institutions in Portugal, being one of the top universities regarding the quality of its infrastructures, the strength of its research and the excellence of its staff. It is attended by some 15,000 students.

### Location

Aveiro is located in the central coastal region of Portugal, about two hours driving distance north of Lisbon. Aveiro is surrounded by a distinctive delta called the Vouga Delta, better known as Ria de Aveiro. Aveiro is served by excellent rail and road connections to Lisbon and to the inland towns as well as to the close by cities of Oporto and Coimbra. Sá Carneiro international airport, which is less than 1 hour away, provides convenient connections throughout Europe.

### Accommodation

Exchange students receive help from the International Office to find accommodation in one of the University Halls of Residence. For students who do not live at the Universi-

ty Halls there are other options. With the help of the Erasmus Student Network (ESN), many students look for flats close to the campus or in the nearby city centre. Typical prices for student accommodation range from €180 to €250 per month.

### Living costs

As an estimate, a student in Aveiro will need somewhere between €550 and €600 per month for accommodation, eating, transport, study material and other basic expenses.

### Visas

Non-EU students should check whether they need a visa and a residence permit. Students make their visa request in their home country, at the Portuguese consulate, before travelling to Portugal.

### Student Life

Students at UA have a lot of support from the University and from each other. The Students Union and the University Social Services provide shops, advice centres, medical care, sports facilities and entertainment. The University departments and central services organise hundreds of events each year, providing students with opportunities to pursue their personal interests, whether it be in science, technology, business or the arts. Counselling and career services are also available to our students and alumni.

### Applications

[www.ua.pt/grl/applications](http://www.ua.pt/grl/applications)

SEMESTER EXCHANGE IN AVEIRO

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OF INNOVATIVE UNIVERSITIES

Applications  
in Civil  
Engineering



universidade de aveiro  
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Semester exchange packages are English taught programmes at bachelor or masters level and correspond to a full semester of academic work that can be recognised at your University. We will partner with your University to ensure you gain all the benefits from your exchange at UA.

#### MAIN BENEFITS

- English taught course units
- Non-overlapping course timetable
- Support for accommodation and Visa

#### PROGRAMME WORKLOAD

**Semester:** 1st (September-January)

**Programme workload:** 30 ECTS credits

**Language requirement:** English, B1 level

**Academic level:** Master

**Prerequisites:** bachelor degree in Civil Engineering or related areas (Environmental, Mechanical, etc.)

#### Fees:

- Visiting Students - EUR 1500,00
- Fee waivers may apply in the case of student exchange schemes like Erasmus.
- Students wishing to do a single course unit from an Exchange Package can opt to apply for “isolated course units” where the fees range from €40,00 - €60.00 per ECTS credit, depending on subject area.

#### COURSE UNITS

(choose five of the following course units)

- **46494 Timber Construction (6,0 ECTS)**  
The aim of this course is to give students the ability of analysing, conceiving and designing timber structures. Students will understand the behaviour of wood and commonly used wood based panels, in particular regarding its internal structure, anisotropy and strength. The design methods for beams, columns, pavements and connections are presented. The fire design of timber is also studied.
- **46897 Coastal and Port Engineering (6,0 ECTS)**  
The aim of this course is to provide general knowledge on the field of maritime hydraulics, understanding the actions, the behaviour and the impacts of the main interventions in the coastal areas. The main topics are the maritime hydrodynamic and the phenomena related to wave propagation to shore, and the main characteristics of the harbour structures and the coastal defence structures. At the end, the students should be able to design and organize a complete coastal work project.

- **45528 Advances in Steel and Composite Construction (6,0 ECTS)**

The aim of the course is to provide knowledge in the following subjects: i) steel structures – plate girders, shear buckling resistance, column bases, cold formed profiles and fire design; ii) composite steel and concrete structures – general rules, design of composite beams, columns and slabs, shear connectors and fire design and iii) Fire safety (fire safety regulation for structural fire design and fire scenarios including natural fires).

- **48000 Risks Prevention in the Construction (6,0 ECTS)**

The aim of this course is to provide knowledge of the concepts and methodologies of risk management and assessment of the built environment and constructed facilities. Students will acquire knowledge of the hazards, vulnerability and exposure of different types of risks and perform direct applications in distinct areas of engineering. Different methods for risk assessment are approached for different structures and scale analysis.

- **43331 Transportation infrastructures (6,0 ECTS)**

The Transportation Infrastructures course is focused on the planning, design and operation of transportation systems. The main topics discussed are: roads; airports and railways. The first topic is about highways traffic characteristics, the application of traffic principles and techniques used in the planning and design of road systems and the geometric design of intersections. The second topic is about airport planning and design and finally, the main aspects related to the railway engineering are presented.

- **45531 Water Systems for Buildings (6,0 ECTS)**

Building services engineering is focused on the design, installation, operation, monitoring and rehabilitation of water, mechanical and electrical systems installed in buildings. This course unit is focused only on the water systems, giving knowledge of water supply, drainage and active fire-fighting systems. At the end of this course unit, students should be able to design water systems for buildings based on technical requirements and following existing regulation and standards.