Bachelor's Degree in Public Works Engineering

**Introduction to the degree**

Civil engineering provides sustainable solutions for integrating infrastructures within the environment and the society. Urban planning and their utilities, railway and highway network design, coastal engineering, risk assessment of floods and earthquakes, design and construction of bridges, tunnels, dams and ports or the integral management of projects are the most common civil engineering activities.

Bachelor’s Degree in Public Works Engineering qualifies for practising the regulated profession of Technical Engineer in Public Works, in all specialisations: Civil Engineering Construction, Hydrology and Transport and Urban Services. In addition, after completing this program students can access the Master’s Degree in Civil Engineering at UPV.

The Bachelor’s Degree in Public Works Engineering comprises 240 ECTS during 4 academic years. During the first two years, basic courses (statistics, physics, mechanics, mathematics, drawing,...) and pre-technological courses (structural analysis, construction, transportation,...) are taught, while third and fourth years focus on specific technological training in civil engineering.

**International mobility**

Students can study over more than 70 foreign universities the School has signed exchange agreements with. You can study at countries such as France, Germany, United Kingdom, Italy, Finland, Austria and the USA.

**Internships**

The School has signed agreements with leading construction companies and consultancies, both national and international, as well as with public and private organisations related to civil engineering. Students can do internships in Spain (visiting constructions or working in offices or laboratories) and abroad.

**Continuation of studies**

With this degree, you will be able to access to:

- MD in Civil Engineering
- MD in Environmental Engineering
- MD in Concrete Engineering
- MD in Hydraulic and Environmental Engineering
- MD in Intelligent Transport Systems, MD-ITS
- MD in Prevention of Occupational Risks
- MD in Transportation, Planning, Urban Planning
- MD in Construction
- others MD + levelling subjects

**Professional opportunities**

This degree qualifies its graduates to work in the profession of Technical Engineer in Public Works, in any of three specialisations: Civil Engineering Construction, Hydrology and Transport and Urban Services. You can work in construction companies, engineering and architecture consultancies, construction materials and quality control, energy production, maintenance and operation of services firms etc.

You can also be self-employed and manage and supervise constructions, control the quality of materials, studies and projects, manage construction equipment and construction materials, surveys, risk-prevention etc.

You can work public officer at the civil service’s technical staff for all types of administrations (ministries, councils, municipalities etc.) or do research in public or private schools.

Study at the **UPV**

and be part of Spain’s best technological university according to the Shanghai ranking
Bachelor's Degree in Public Works Engineering

Credits for obtaining the degree

<table>
<thead>
<tr>
<th>Basic courses</th>
<th>Compulsory</th>
<th>Elective</th>
<th>Internship</th>
<th>TFG</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>60.00</td>
<td>102.00</td>
<td>66.00</td>
<td>0.00</td>
<td>12.00</td>
<td>240.00</td>
</tr>
</tbody>
</table>

The subjects that you will be able to take

**Basic courses**
- Basic Knowledge of Programming and Numerical Methods
- Basic Statistics
- Drawing
- Economics, Legislation and Business Management
- Fundamentals of Physics in Civil Engineering
- Geology Applied to Civil Engineering
- Mathematical Foundations of Civil Engineering
- Mathematical Methods of Civil Engineering
- Mechanics
- Representation Systems

**Compulsory courses**
- Chemical Composition of Materials
- Civil Engineering Typologies and Construction Procedures I - II
- Construction Materials and their Application to Civil Engineering
- Electrical Engineering
- Geotechnics and foundations
- Hydraulics and Hydrology I - II
- Installation, Organization and Quality Assurance in Construction
- Occupational Risk Prevention in Civil Engineering
- Professional Training Workshops
- Reinforced Concrete
- Road Infrastructures
- Science and Environmental Impact of Civil Engineering
- Steel Structures
- Structural Analysis
- Supply and Sewer Networks
- Topography
- Urban and Land Planning

**Elective courses**
- A First Course on Bridge Construction
- Academic and Professional German A1 - A2 - B1 - B2
- Academic and Professional Italian A1 - A2
- Air and Soil Environmental Management
- Building
- Building Information Modelling (BIM) - III. CC
- Building Information Modelling (BIM) - III. HMA
- Building Information Modelling (BIM) - III. TSU
- Civil Engineering for the Conservation and the Recuperation of Biodiversity
- Economics and Transport Organization
- Effects and Behaviour of Contaminants in Aquatic Ecosystems
- Energy Systems and Hydroelectric Facilities
- English
- Environmental Impact Assessment of Civil Engineering
- Equipping and Provision of Urban Services
- Foundation and Earth Retaining Structures
- Geotechnical Engineering Techniques and Methods
- Hydraulic Work and Uses
- Hydraulics and River Engineering
- Industrialised Construction
- Management and Operation of Transport Services
- Maritime Works
- Modal Interchange Facilities
- Oral And Written Expression In Civil Engineering
- Organization and Management of Leisure Infrastructure
- Pathology and Rehabilitation
- Prestressed Concrete
- Special Concretes and New Materials
- Steel and Composite Steel-Concrete Construction Technology
- Surface and Groundwater Hydrology
- Sustainable Development Strategies
- Technical Valencian C1 - C2
- Technology of Concrete Constructions
- Territorial Effects of Infrastructure
- Traffic Engineering
- Urban Planning in the Current City
- Urban Planning Management
- Urban Transport
- Urban Water and Waste Systems and Services
- Water Resource Planning and Management

Internationally accredited bachelor's degree (EUR-ACE)