

Teaching Position Profile - Physics and Civil Engineering B (Research and Lead of Practical Classes)

Teaching Profile (300 characters maximum - Galaxie)

Lecturer in applied physics for a Bachelor of Science and Engineering, with a civil engineering focus. Teaching in hydraulics, engineering geology and applied thermal science. English-medium teaching, responsibility for practical classes, teamwork. Civil-engineering research experience desirable.

Position Context

This position is part of the *European Bachelor in Infrastructure and Transitions*, a joint programme offered by the École nationale des ponts et chaussées (ENPC) and the Universidad Politécnica de Madrid (UPM), with İstanbul Teknik Üniversitesi (İTÜ) as mobility partner. Taught entirely in English, the programme is designed for an international intake of students entering higher education after secondary school and prepares them for careers in civil engineering and infrastructure, or for further study in France and internationally.

The successful candidate will primarily teach applied physics courses with a strong civil-engineering focus. They will teach in fields where physics directly connects with infrastructure applications - hydraulics, geology, heat transfer in the built environment and climate risks - helping to strengthen the applied and professionally oriented dimension of the programme.

In addition to their teaching duties, they will hold operational responsibility for the campus practical classes, a key role in ensuring teaching quality and the smooth delivery of experimental activities.

Main Teaching Areas

The successful candidate will primarily teach in the following areas:

- hydraulics and introduction to hydrology;
- engineering geology and introduction to soil and rock mechanics;
- applied thermal engineering, energy efficiency and thermal comfort in buildings and infrastructure;
- climate risks and infrastructure resilience;
- fluid mechanics;
- other modules related to the programme, depending on the candidate's fields of expertise.

Depending on their profile, the successful candidate may also contribute to courses or projects at the interface with structural mechanics, materials, or the first year of ENPC's engineering degree programme.

The ability to teach in English is essential.

Teaching Responsibilities

The successful candidate will contribute fully to the implementation and development of the programme. Working with the international partners, they will be expected to:

- design, update and deliver teaching amounting to 384 equivalent tutorial hours (HETD) per year, after any workload reductions granted, where applicable, for responsibilities held or research activities;
- contribute to the structuring of course content, teaching sequences and assessment methods;
- contribute to the overall academic coherence of the curriculum;
- implement teaching approaches suited to students entering higher education after secondary school, within a programme taught entirely in English;
- participate in academic committees and examination boards;
- coordinate and build a stable group of contributors in their disciplinary field.

Secondary Responsibility - Head of Practical Classes

In addition to their teaching duties, the successful candidate will be responsible for organising and ensuring the smooth operation of practical classes on campus. This responsibility includes:

- academic coordination of practical sessions, in liaison with the lecturers responsible for each course and laboratories;
- management of the practical-class timetable and allocation of timeslots and spaces;
- monitoring, maintenance and renewal of equipment and experimental facilities;
- development and updating of experimental protocols in line with the learning objectives.

An interest in active learning, pedagogical experimentation, and teaching through observation and measurement is expected.

Teamwork and Contribution to the Programme

The position requires a strong ability to work collectively. The successful candidate will collaborate with the entire teaching team, contribute to coordination meetings and arrangements, and participate in promoting and developing the programme.

The successful candidate may be asked to represent the programme to a range of audiences: students and families in France and internationally, academic partners, scientific committees, and socio-economic stakeholders.

Candidate Profile

The position is open to either:

- *a person holding a PhD in physics, or in a closely related field relevant to the teaching areas listed above. The successful candidate will be integrated into the institution's scientific environment and may, depending on their profile, contribute to research, innovation or knowledge-transfer activities related to the position. In this case, association with an ENPC laboratory may be considered;*

or

- *a holder of the French agrégation, or a secondary-school teacher assigned to higher education, in a discipline relevant to the teaching areas listed above. A PhD or research experience would be an advantage.*

The following qualities are particularly sought:

- a strong command of the fundamentals of applied physics, with familiarity in one or more of the fields taught (hydraulics, engineering geology, applied thermal engineering and natural hazards);

- the ability to connect fundamental physical sciences with applications in civil engineering and infrastructure;
- the ability to work as part of a team and coordinate collective teaching activities;
- an interest in experimental teaching and practical classes, together with the ability to organise experimental activities;
- skills in, or a strong interest in, managing material and logistical resources in an educational setting;
- confidence in teaching in English and working in an international and multicultural environment;
- the ability to design coherent learning progressions suited to diverse student groups;
- openness to new teaching practices and to changes in the student population.

Employment Conditions

This position is open to researchers, academic staff with teaching and research duties, holders of the French agrégation, and secondary-school teachers assigned to higher education, on secondment or leave of absence.

Within the PRAG framework, the annual teaching load is set in accordance with Articles 3 and 5 of Decree No. 2025-742 of 31 July 2025 concerning primary- and secondary-school teaching staff assigned to public higher-education institutions under the authority of the minister responsible for higher education:

- 384 hours of tutorials or practical classes.
- Where lectures are assigned, they are counted, for the purpose of calculating the teaching load stated above, at one and a half equivalent tutorial hours (HETD) for each hour actually taught;
- Teaching duties include the preparation of classes and the assessment of students in the courses taught.
- The weekly teaching load may not exceed fifteen hours for holders of the French agrégation working as secondary-school teachers;
- The Director determines the individual teaching duties of these staff members in the interests of the service, following a reasoned opinion from the head of the academic unit after consultation of the unit council.
- Each teacher receives an individual teaching schedule at the beginning of the academic year. It may be adjusted for each teaching semester.

ADDITIONAL INFORMATION

Website: www.enpc.fr

Department: Education Directorate

Expected cohort size: 40 to 60 students

Place of work: École nationale des ponts et chaussées

6 and 8 avenue Blaise-Pascal - Cité Descartes -

Champs-sur-Marne - 77455 Marne-la-Vallée Cedex 2

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APPLICATION PROCEDURE

I - Application documents

The application must include the following documents:

1. Proof of identity
2. A detailed curriculum vitae
3. A copy of the official order confirming the candidate's most recent classification in the corps and grade of secondary-school teaching staff
4. A copy of the most recent appointment order
5. For staff in a status other than active service, a copy of the official order specifying their administrative status (secondment, leave of absence, leave, deferred appointment, unpaid leave, etc.)
6. A cover letter

II - Submission of applications

To apply, please use the following link : <https://jobs.layan.eu/fr/offer-of-ecole-nationale-des-ponts-et-chaussees-no-111681>