

Teaching Position Profile - Physics A (Fundamentals and Student Support)

Teaching Profile (300 characters maximum - Galaxie)

Lecturer in fundamental physics for a Bachelor of Science and Engineering, teaching mechanics, general physics, thermodynamics and continuum physics. English-medium teaching, support for first-year students, teamwork, and interest in educational innovation.

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.

The successful candidate will teach mainly fundamental and general physics. These courses form the scientific foundations of the programme at a key stage in the student journey: entry into higher education. They will therefore also play a central role in providing close academic support and helping students develop autonomy during the first and second undergraduate years.

Main Teaching Areas

The successful candidate will primarily teach in the following areas:

- fundamental physics and mechanics (kinematics, dynamics and statics);
- continuum physics and order-of-magnitude estimation for engineers;
- thermodynamics and fundamental heat transfer;
- fluid mechanics;
- experimentation, measurement and analysis of results.

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

The ability to teach in English is required.

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 - Student Guidance and Academic Support

In addition to their teaching duties, the successful candidate will serve as a close-contact academic adviser for students. This responsibility includes:

- individual monitoring of students, particularly in the first and second years;
- early identification of academic difficulties and referral to appropriate support arrangements;
- active participation in semester examination boards and cohort monitoring committees;
- serving as the first point of contact for students in their day-to-day academic life;
- contributing to induction arrangements and to the development of student autonomy at the beginning of the programme.

Familiarity with active learning, competency-based assessment and blended learning 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 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;*

or

- *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.*

The following qualities are particularly sought:

- a strong command of the fundamentals of physics;
- the ability to convey scientific knowledge to young students, some of whom may be under 18, at the beginning of their higher education studies;
- the ability to work as part of a team and a strong commitment to collective teaching practice;
- a strong interest in educational design and active methods for teaching science;
- 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;
- a strong commitment to student support and academic success.

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-111631>