GRADUATE SCHOOL Sport Mouvement Facteurs Humains

UNIVERSITE PARIS-SACLAY



Doctoral school

Sports, Motor and Human Movement Sciences jointly accredited with the Université de Paris and Université Paris-Nanterre

Master's

5 tracks in Human Movement & Sport Sciences and 8 Master's study paths:

- STAPS : Science and Techniques of Physical and Sports Activities
 - Sport Science and Physical Education
- APAS: Adapted Physical Activity and Health
 - Neurological Disability
 - Physical Activity, Exercise
 and Health
 - Ageing, Disability: Movement and Adaptation
- EOPS: Training and Optimization of Sports Performance:
 Sports Sciences for Health and Performance
- EAP: Engineering and Ergonomics of Physical Activity
 Engineering and Human
- Movement Sciences
 MS: Sports Management
 Sport Leisure and Event
 - Sport Leisure and Eve Management
 - Public Policies and Strategies of Sports Organisations

Three international courses

Taught in English only: Sports Sciences for Health and Performance; Sport Leisure and Event Management; Physical Activity, Exercise and Health.

An outstanding geographical scope of opportunities

- High-level federal institutions:
 - National Rugby Centre in Marcoussis
 - National Football Centre in Clairefontaine
 - National Velodrome in Saint-Quentin-en-Yvelines
 - CREPS (Sports Resources, Expertise and Performance Centre) in Châtenay-Malabry
- Excellent facilities and a quality sports environment:
 - Université Paris-Saclay Sports Ground, Plateau de Saclay
 - Outdoor leisure activities between the Yvette and Bièvre valleys, Vallée de Chevreuse Natural Park
- A socio-economic and health network including:
 - The Genopole research centre
 - Sud Francilien Hospital
 - Start-ups

Bringing innovation to the heart of the Université Paris-Saclay area.









130 PhD students





Laboratories and research teams

- CIAMS Research Laboratory, Complexity, Innovation, Motor and Sports Activities,
- LBEPS Research laboratory for the Biology of Exercise, Performance and Health (Évry University, Armed Forces Biomedical Research Institute – IRBA)
- CIC 1429, Clinical Investigation Centre (APHP, INSERM)
- END-ICAP Unit, Neuromuscular disability: physiopathology, biotherapy and applied pharmacology (UVSQ, INSERM)
- ERPHAN research team, Paramedical Research Team on Neuromotor Disability (UVSQ)
- LISN, Interdisciplinary Laboratory of Digital Sciences (UPSaclay, CNRS, Inria, CentraleSupélec)
- LISV, Versailles Systems
 Engineering Laboratory (UVSQ)
- L2S, Signals and Systems Laboratory (Université Paris-Saclay, CNRS, CentraleSupélec)

Key players from the SMFH Graduate School

- Faculty of Sport Sciences, Paris-Saclay
- Faculty of Medicine, Paris-Saclay
- STAPS Department of the Faculty of Applied Basic Sciences, Évry University
- Simone Veil Faculty Health, Versailles Saint-Quentin-en-Yvelines University (UVSQ)
- CentraleSupélec
- Polytech Paris-Saclay
- French National Centre for Scientific Research (CNRS)
- Faculty of Law-Economy-Management, Paris-Saclay Jean-Monnet

The Fédération Demenÿ-

Vaucanson (FéDeV) provides an innovative, multi-disciplinary alliance at the interface of human movement science and engineering sciences by sharing knowledge and research platforms. Strengthening scientific and technological skills, the federation oversees quality research carried out by some fifteen units which, in addition to those mentioned above, also include:

- IBISC, Computer Science, Integrative Biology & Complex Systems Laboratory (Évry University)
- Institut Carnot CEA-LIST (includes the LRI, LISA, LSI and LVIC laboratories)
- LRI, Computer Research Laboratory (Université Paris-Saclay, CNRS)
- and units outside UPSaclay such as IFSTTAR (Simu-moto, LPC and LEPSIS), SEP (INSEP) and UNAM (Ellen Poidatz Foundation)



The Sport, Movement and Human Factors Graduate School at Université Paris-Saclay bears unquestionable benefits for our society. All of the subjects covered, including leisure, sports events, teaching, education, prevention and health, ageing, well-being, disability, etc., affect the entire population, from the youngest to the oldest, from beginners to top athletes, and from non-disabled people to those with disabilities.

To secure quality teaching and research, the Graduate School's main mission is to ensure that key, established objectives are met:

- Provide a stimulating environment based on cutting-edge academic research
- **Support high-quality education** in the fields of sport, physical activity and human movement
- **Reach international audiences** by creating courses exclusively in English and organising an annual workshop.



Across several key focus areas

- Physical and sports education
- Adapted physical activity and sports health
- Training and sports performance optimisation
- Sport management: sports events and public policies
- Engineering for human movement
- Basic and applied research in motor control, psychology, cognitive and behavioural neuroscience, exercise physiology and biomechanics

• The Sports, Motor and Human Movement Sciences Doctoral School, which is part of the Graduate School, is a major asset for further studies. It awards degrees in three disciplines: human movement and sport sciences, psychology and ergonomics.

It is one of only two doctoral schools in France whose objective is the study of human motricity through human and social sciences, life sciences, information sciences and engineering, supported by innovative interdisciplinary research on sport and human movement.

Crossdisciplinary projects

• Human-in-the-loop Control and

Decision - H-CoDe: jointly with the Graduate Schools of Computer Science; Economics & Management; Engineering and Systems Science; Sport, Movement and Human Factors; Mathematics; and Life Sciences and Health. H-CoDe will provide training for the professions of the future that incorporate humans into the loop of automated systems, and which require an interdisciplinary approach, building on programmes and research from multiple GS. This project is structured around six challenges: closed-loop neuroscience; movement science; human robotics; autonomous systems in interaction; economics; and smart energy

networks.

It will enable a number of societal challenges to be addressed in line with national and European strategies, including: *health and well-being; transport and mobility; industrial renewal; digital transformation and artificial intelligence.*

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