



Université Claude Bernard Lyon 1 Establishment Contract - 2016-2020



Master's degree 2nd YEAR

ADAPTED PHYSICAL ACTIVITY AND HEALTH (APA-S)

MPSI Research PROGRAMME

MOVEMENT, PERFORMANCE, HEALTH AND INNOVATION (MPSI)

2020-2021

**ADMINISTRATIVE
AND
ACADEMIC CONTACTS**

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Laboratoire sur les Vulnérabilités
et l'Innovation dans le Sport

Subject to Change

Non-binding document
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1. Course objectives and description

The MPSI programme focuses on the research process, from the formulation of the subject of the research to the collection and analysis of data, mastery of the use of several methodologies and the production of a research dissertation. The work placement in a laboratory, for a minimum of 4 months, trains students in models applied to research in the social and human sciences or in the life sciences, with a view to their application in the field of Adapted Physical Activity.

This course, which aims to help apprentice researchers develop a sense of rigour, method and autonomy, is supported by two research units: L-ViS (*Laboratory on Vulnerability and Innovation in Sport* – EA 7428), in which research into APA-S can be conducted in sociology, anthropology, history and psychology (<http://l-vis.univ-lyon1.fr>) and LIBM (*Interuniversity Laboratory of Biology and Motricity* - EA 7424), in which APA-S research can be conducted in physiology, biomechanics and neuroscience (<http://www.libm.fr/>). From the 1st year of the Master's in Adapted Physical Activity and Health (APA-S), students can combine a professional specialisation (operational training in APA-S) with an opening in the field of research (introduction to the scientific method). To do this, students simply have to complete a 2-month placement with L-ViS or LIBM, an option that is compatible with further studies in a professional field (2nd year of the Master's programme in Intervention and Management in APAS).

2. Admission requirements

Admission to the MPSI programme requires the student to have already completed the first year of a Master's degree. A selection board (*commission ad hoc*) examines the application, composed of a detailed CV, covering letter and research project prepared in conjunction with a laboratory faculty member. The MPSI programme is also accessible to students in continuing education, in the context of a resumption of studies.

3. Organisation of the course

The course takes place over two semesters (S3 & S4). It is structured on the basis of specialised courses: methodology and epistemology of research, English and scientific communications, investigation techniques, statistics, etc. or the experimental approach. The themes of innovation and vulnerability, which constitute the main areas of research within L-ViS, also occupy a significant place in the social and human sciences courses proposed. The study of the potential positive effects of physical activity on health and quality of life, which constitute the third area of research for LIBM (in particular theme 5) form the basis for the life sciences courses. The link between education and research is ensured by 1) individual supervision by a director of research and member of L-ViS, who accompanies each student throughout the course of their research; 2) access to a series of seminars in connection with the laboratory's research themes; 3) integration of the student into the life of the laboratory (socialisation of research); and 4) the preparation of a research dissertation. The student thus benefits from specific advice to gradually familiarise them with the scientific approach and the various ways of conducting research.

4. Career opportunities and/or further study

The MPSI programme enables students to test their abilities and real desire to undertake a scientific career. Indeed, completing a Master's programme in research is the best way of accessing an academic career in the field of Adapted Physical Activity. In a broader sense, this research programme is conducive to several types of professional projects:

- further study at PhD level: the development of a scientific project at Master's level that may be extended at doctoral level constitutes a significant advantage (familiarisation with the theories and methods, honing of the problem, preparation of requests for funding, etc.)
- acquisition of specific skills in applied study and research (development of expertise)

5. Targeted skills

The aim of this programme is to render students able to:

- identify the specific nature of research in the social and human sciences or in the life sciences
- gain epistemological perspective with regard to the substantial multidisciplinary nature of Sports Science
- apply in-depth knowledge in a theory specific to a field within the social and human sciences (history, sociology, anthropology, social psychology, etc.) or the life sciences (physiology, biomechanics, neuroscience)
- adopt a methodical approach to the production of knowledge
- design a rigorous analytical approach, supported by current scientific knowledge
- know different methods of investigating, producing and analysing data (qualitative and quantitative); master the use of one such method (collection, processing and analysis of data) or master the experimental approach.
- master the use of IT and statistical tools
- master the English language and written and oral scientific communication techniques
- use documentary monitoring techniques with purpose and identify the issues concerning the use of academic social networks
- structure, draft and present an introductory piece of research (dissertation)
- demonstrate perspective and critical objectivity with regard to the results and analysis produced
- demonstrate autonomy and initiative in steering analytical work

6. Possible areas of research

The subject-matter of the work placement and dissertation carried out in the laboratory must be in connection with the main research themes of L-ViS (vulnerability and/or innovation in the field of adapted physical activity or sport). The large number of faculty members in the laboratory offers a great diversity of approaches and expertise. For example:

Psychological, sociological or historical analysis of involvement in a physical activity (sporting and/or adapted)

Study of the professional and social dynamics surrounding physical activity for health

7. Student numbers and pass rate

		2016-17	2017-18	2018-19
M2 MPSI	Student numbers	21	19	12
	Pass	13	13	5
	Pass rate	62%	68%	42%

8. Content of the course

M2 MPSI programme – Social and Human Sciences programme – 3rd semester: **Analyse and understand the professional environment and socio-economic context**
Master the use of methods and tools

APOGEE Code	Courses		ECTS (European credits)	Targeted skills: be able to...	Status	Hours in class
SPT2113M	Methodology of research in the Social and Human Sciences and Life Sciences		6	Gain epistemological perspective with regard to the research process in the Social and Human Sciences or Life Sciences and the multidisciplinary specific to Sports Science	Compulsory	20 hrs (tut.)
				Be familiar with different methods of research, production and analysis of data (quali/quant)		
				Analyse vulnerability as a social question linked to institutions, organisations, professions and practices		
				Understand Physical Activity actions in terms of their ability to provide a response to vulnerability (linked to incapacity, age, chronic disease, isolation, a sedentary lifestyle, etc.)		
LGSPT2AM	English		3	Communicate in a professional manner in academic English (oral and written)		24 hrs (tut.)
Teaching unit (UE) options in Master's degrees in Sports Science (up to 12 ECTS)						
Teaching unit common to all 3 programmes						
In progress	Course 1: 1 of 2	Evaluate and coordinate therapeutic education in APA-S	3		Options	
		APA and vulnerability: sociological approach	3	Distinguish between fragility, vulnerability and disability		
				Analyse vulnerability as a social question linked to institutions, organisations, professions and practices		
				Understand Physical Activity actions in terms of their ability to provide a response to vulnerability (linked to incapacity, age, chronic disease, isolation, a sedentary lifestyle, etc.)		
SPT2076M	Course 3: sociology of sport innovation		3			
SPT2133M	Course 2: fatigue and overtraining	Biological approaches to fatigue and overtraining	3			
		Psychological approaches to fatigue and overtraining	3			

Teaching unit specific to the MPSI programme - Course 1-2-3 (1 to 2 teaching units)

SPT2116M	Motricity, performance and health: biomechanical and physiological approaches	6	Know, understand and analyse the biomechanical and physiological factors in performance motricity in order to prevent undue injuries	Options	20 hrs (lect.)
SPT2117M	Motricity, performance and health: psychological approach	6	Know, understand and analyse the psychological factors underlying commitment and the emotional experience in performance motricity.		20 hrs (lect.)
SPT2118M	Motor imaging, performance and health: neuroscientific approach.	6	Know, understand and analyse the neurophysiological and behavioural factors in the representation of action and its effects on motor performance and therapy.		20 hrs (lect.)
SPT2122M	Health, motricity and quality of life	6	Know, understand and analyse the factors associated with physical activity		20 hrs (lect.)
SPT2119M	Gender study - sexual discrimination and sporting movement	6			
SPT2020M	Body-sport and difference between the sexes	6			
SPT2121M	Sport and innovation	6			
SPT2123M	Dynamic and social physical activity - health - well-being	6			

Teaching unit (UE) options in Master's degrees at Université de Lyon (up to 12 ECTS)

SPT2140M	Biomechanics of the Locomotor System - Master's in MECHANICS - Lyon 1	6		Options	
SPT2136M	Skeletomuscular Function and Associated Diseases Master in Integrative Biology and Physiology - Lyon 1 Physiology and Muscular Diseases programme - 2 nd year	6			
SPT2137M	Cardiovascular Physiopathology Master's in Integrative Biology and Physiology - Lyon 1 Cardiovascular, Metabolic and Nutritional Regulation – 2 nd year	6			
SPT2125M	Theoretical Contributions to Social Psychology	6	This information is in the process of being prepared		30 hrs (tut.)
	Master's in Social Psychology and the Psychology of Work and Organisations (Lyon 2)				

APOGEE Code	Courses	ECTS (European credits)	Targeted skills: be able to...	Status	Hours in class
SPT2126M	Advanced Methodologies	6	This information is in the process of being prepared		30 hrs (tut.)
	Master's in Social Psychology and the Psychology of Work and Organisations (Lyon 2)				
SPT2138M	NeuroConferences Master's in Neuroscience - Lyon 1 Fundamental and Clinical Neuroscience programme – 2nd year	6			
SPT2139M	Neural Basis of Cognition Master's in Neuroscience - Lyon 1 Fundamental and Clinical Neuroscience - 2 nd year	6			
SPT2127M	Opening course	6	To be chosen from among courses other than those proposed above.		

M2 MPSI programme – Social and Human Sciences programme – 4th semester **Design, organise and manage a research project**

APOGEE Code	Courses		ECTS (European credits)	Targeted skills: be able to...	Status	Hours in class
SPT2128M	Scientific communication		3	Communication orally and in writing in a professional manner	Compulsory	20 hrs (tut.)
SPT2129M	Statistics		3	Know the descriptive univariate and bivariate methods, associated inferential procedures and corresponding sizes of effects		20 hrs (tut.)
				Understand the difference between multiple regression, variance analysis and covariance		
				Know the rudiments of the main factorial multivariate analytical methods: PCA, MCA and CA		
				Apply all these methods using the free software R		
SPT2130M	Professional experience in a laboratory	Work placement	24	Produce a dissertation on a completed piece of research demonstrating mastery of the scientific approach		400 hrs
		Research training		Integrate the professional environment of a research laboratory (participation in the life of the laboratory)		