S4MRH546_2019
INCREASE YOUR LEARNING POTENTIAL WITH APPLIED NEUROSCIENCES

Number of ECTS credits : 2
Course language : Anglais
Course leader : LEGRAND CELINE
Speakers : LEGRAND CELINE

☰ COURSE DESCRIPTION

This course builds on recent contributions from neuroscience research into brain function, mental and motor preferences, and coping and learning strategies. It aims to better understand the role of the brain and movement in learning, as shown by recent research in neurobiology, cognitive psychology, and sports (where these findings are increasingly applied in training high level athletes in athletics, swimming, football, rugby, basketball, gymnastics, running, golf, tennis ...).

This course is taught in the form of workshops where the participant is led to understand the learning process (including the learning context, the types of memorization, the different neurotransmitters at play, the conditions for an efficient learning) and to identify his/her mental and motor preferences to be more effective in learning situations in different contexts (academic, professional, sports ...).

☰ COURSE OBJECTIVES

Understand the adaptation and learning mechanism and the role of the brain (experiences, memory…).

Identify one's mental and motor preferences and learning style; and understand implications of these preferences to learn more effectively.

☰ LEARNING OBJECTIVES

C4B learning goal	LG5 - Cooperation
C4B learning objective	LO15 - Act with flexibility, adaptability and intellectual curiosity
Outcomes	Lev. 2 - Act constructively in the face of change and unexpected events

☰ TACKLED CONCEPTS

Genesis and functioning of the brain

From stimuli to action: the brain at play

How the brain memorize information

Motivation to learn

Adaptation and learning mechanism

The learning context and conditions in favour of efficient learning

Mental and motor preferences

Learning styles

Brain Gym

☰ LEARNING METHODS

Small group

Preparatory readings and videos

Short lectures (Concepts and models explanation)

Workshops:

- Profiling for mental and motor preferences
- Learning styles
- Brain Gym

Exercices

Videos

Discussions

Group work

☰ EXPECTED WORK AND EVALUATION

Sessions preparation

Active participation in class

Diary (about questions and learnings)

Students assessment:

- Participation in class 40%
- Diary - including a written individual reflection (LO15) 60%

☰ BIBLIOGRAPHY

Paul Howard-Jones (2018). *Evolution of the Learning Brain* . Routledge.

Anthony Bachelier et Frédéric Houdard (février 2019). *Préférences mentales et motrices*. Ce2 éditon.

Kay Peterson and David A. Kolb (2017). *How You Learn Is How You Live: Using Nine Ways of Learning to Transform Your Life* . Berrett-Koehler Publishers

Benedict Carey (2014). *How We Learn: The Surprising Truth About When, Where, and Why It Happens* . Random House.

Tracy Atkinson (2018). MBTI Learning Styles: A Practical Approach.

☰ EVALUATION METHODS

☰ SESSIONS

1 | **Workshop 1**
LECTURE & CASE STUDIES & EXERCISES : 03h00

Introduction

Genesis and functioning of the brain

From stimuli to action: the brain at play

Memory and learning process

Learning context and conditions in favour of efficient learning

Learning skills

Intelligence types

2   **Workshop 2**
LECTURE & CASE STUDIES & EXERCISES : 03h00

Adaptation mechanism: why and how do we learn?

Motivation for learning

Successful learning strategies

3   **Workshop 3**
LECTURE & CASE STUDIES & EXERCISES : 03h00

Brain Gym

Mental and motor preferences: MMP fundamentals

4   **Workshop 4**
LECTURE & CASE STUDIES & EXERCISES : 03h00

Mental and motor preferences: MMP Profiling

5   **Workshop 5**
LECTURE & CASE STUDIES & EXERCISES : 03h00

Learning styles

Experiential learning

How to increases one's learning potential