STUDY GUIDE

ARTIFICIAL INTELLIGENCE AND SOFT SKILLS (IN THE HEALTHCARE SECTOR)

Organised by

UNIVERSITY OF MONS (UMONS)

1. IDENTIFYING DATA.	
· Course Name.	Artificial Intelligence and Soft Skills (in the healthcare sector)
· Coordinating University.	University of Mons (UMONS)
· Partner Universities Involved.	/
· Course Field(s).	Medical sciences
· Related Study Programme.	Part of the bachelor program in medical sciences at the Faculty of Medicine and Pharmacy
· ISCED Code.	ISCED 6
· SDG.	3
· Study Level.	B
· EUNICE Key Competencies	- Green – strongly - Orange- moderately - Red – partially - Blank cell - not at all

Problem solving	
Teamworking	
Communication	
Self-management	
Cognitive flexibility	
Digital competence	
Technical competence	

· Number of ECTS credits allocated.	3 ECTS
· Mode of Delivery.	Online live with self-study activities
· Language of Instruction.	English
· Course Dates.	Winter Semester
· Precise Schedule of the Lectures.	Self-learning activities will open on 1st October, and must be completed by 31st October. These self-learning activities must be completed before the group challenge starts and live session begin. The live session schedule will be communicated by the professor after the student enrolment.
· Key Words.	Artificial Intelligence; healthcare sector; machine learning; problem solving; knowledge representation; machine vision, self-motivation; work attitude, work ethic, flexibility, teamwork, cooperation
· Catchy Phrase.	Thanks to the training in AI and soft skills with real cases methodology and working in multidisciplinary teams, students will become better professionals by taking into account AISS training material into their medical education.

· Prerequisites and co-requisites.	Good command of the English language - Basic knowledge in statistics
· Number of EUNICE students that can attend the Course.	Unlimited
· Course inscription procedure(s).	Through the EUNICE website

2. CONTACT DETAILS.	
· Department.	Médecine informatique et Neuropsychiatrie
· Name of Lecturer.	Giovanni Briganti
· E-mail.	Giovanni.BRIGANTI@umons.ac.be
· Other Lecturers.	Camille Dieu (Camille.DIEU2@umons.ac.be)

3. COURSE CONTENT.

The learning activity "Artificial Intelligence" will consist of:
- Introduction to AI
- Expert systems and their role in the healthcare sector
- Introduction to machine learning
- Machine learning in the healthcare sector
- Introduction to machine vision
- Image recognition in the healthcare sector

The learning activity "Soft Skills" will consist of:
- Self-knowledge and initiative
- Ability to adapt to different situations
- Communication
- Teamwork
- Work organization
- Work ethic

The learning activity "Reality-based Challenge" will consit of:

The work is organized in international groups. Each group is assigned a challenge, in the form of an anonymized database, built from data obtained in real practice. Each group will have to process their data to derive a set of clinically useful information and to present in public all of their work.

All of these modules aim to stimulate the creativity and entrepreneurial spirit of leaners, allowing them a reasoned approach to AI and the development of efficient and ethical working methods.

4. LEARNING OUTCOMES.

- Describe, organize, analyze and prioritize the phenomena observed in the medical field
- Control the molecular, morphological and functional approaches of normal and pathological conditions
- Demonstrate interpersonal skills developed within a medical context
- Develop reasoning skills
- Manage resources
- Manage their studies
- Be a responsible practitioner

5. OBJECTIVES.

This teaching unit aims to (i) provide participants with a high-level understanding of AI currently prevalent in the healthcare sector so that they can critically assess the contribution of various AI solutions to their

work environments, reflect on AI proposals for the healthcare sector, adapt their working practices to facilitate the integration of AI and propose new cases that can be developed by AI; and (ii) to develop soft skills useful for the training of the doctor, to give the student the tools for a better self-knowledge, an ability to adapt to different situations, to communicate, to work in a team, to organize his work and to apprehend ethical issues.

6. COURSE ORGANISATION.
UNITS

1.	Artificial Intelligence (27 hours of theory)
2.	Soft Skills (30 hours)
3.	Reality-based Challenge (30 hours of practical work)

LEARNING RESOURCES AND TOOLS.
Online videos on Moodle EUNICE
PLANNED LEARNING ACTIVITIES AND TEACHING METHODS.
Self-learning activities and group challenge

7. ASSESSMENT METHODS, CRITERIA AND PERIOD.
- Participation in the courses and webinars "Artificial Intelligence" and "soft skills" is mandatory and controlled by rated exercices.   - The student must count 100% participation   - The final evaluation will consist of a presentation related to the teaching activities "Artificial Intelligence, "Soft Skills" and "Reality-based Challenge"   - The final grade will be that of the oral presentation
OBSERVATIONS.
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8. BIBLIOGRAPHY AND TEACHING MATERIALS.
All teaching materials are uploaded on the platform.