UCLouvain

2019

wsbim2251

In view of the health context linked to the spread of the coronavirus, the methods of organisation and evaluation of the learning units could be adapted in different situations; these possible new methods have been - or will be - communicated by the teachers to the students.

3 credits 20.0 h + 10.0 h Q2

| Teacher(s)                  | Lee John ;Missal Marcus (coordinator) ;  |  |  |  |
|-----------------------------|--|--|--|--|
| Language :                  | French   |  |  |  |
| Place of the course         | Bruxelles Woluwe   |  |  |  |
| Prerequisites               | The prerequisite(s) for this Teaching Unit (Unité d'enseignement – UE) for the programmes/courses that offer this Teaching Unit are specified at the end of this sheet.  |  |  |  |
| Aims                        | The contribution of this Teaching Unit to the development and command of the skills and learning outcomes of the programme(s) can be accessed at the end of this sheet, in the section entitled "Programmes/courses offering this Teaching Unit".  |  |  |  |
| Evaluation methods          | Due to the COVID-19 crisis, the information in this section is particularly likely to change.<br>Oral examination  |  |  |  |
| Teaching methods            | Due to the COVID-19 crisis, the information in this section is particularly likely to change.<br>Lectures and critical paper readings.   |  |  |  |
| Content                     | (1) Necessity of a theoretical approach in neurosciences. (2) History of neural networks. (3) Most important types of neural networks<br>At the end of this unit, the student should be able to justify mathematical modeling of the central nervous system.<br>The student should be able to explain the general principles of neural networks and have the knowledge and skills<br>to simulate the behavior of elementary neural networks using MATLAB NNTool GUI. |  |  |  |
| Inline resources            | https://moodleucl.uclouvain.be/course/view.php?id=9189   |  |  |  |
| Other infos                 | Prerequisites: introduction to linear algebra and differential calculus.   |  |  |  |
| Faculty or entity in charge | FASB   |  |  |  |

| Programmes containing this learning unit (UE) |         |         |  |      |  |
|---|---------|---------|--|------|--|
| Program title                                 | Acronym | Credits | Prerequisite   | Aims |  |
| Master [60] in Biomedicine                    | SBIM2M1 | 3       |  | ٩    |  |
| Master [120] in Biomedicine                   | SBIM2M  | 3       | WSBIM2280 AND (WSBIM2112 OR<br>WSBIM2151) AND WSBIM2154<br>AND WSBIM2155 AND WSBIM2156 | ٩    |  |