UCLouvain

# liepr1012

*2023*

# Biomechanics

| 4.00 credits | 30.0 h + 15.0 h | Q2 |
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| Teacher(s) | Dewolf Arthur ; |
| Language : | French |
| Place of the course | Louvain-la-Neuve |
| Learning outcomes | |
| Evaluation methods | The written exam includes questions on exercises and theory.<br>The assessment is conducted using a multiple-choice exam (MCQ). For each question, 5 answer choices will be provided, along with a 6th choice "I don't know the answer." Among the 5 choices, only 1 correct answer is expected per question. No points are awarded for unanswered or incorrect responses. A quarter of the points will be awarded if the student selects the "I don't know the answer" option.<br>The minimum mastery threshold (c) for learning outcomes (corresponding to a score of 10/20) is determined by the following formula: c = ((n+1)/2n) x 100, where n represents the number of choices per question. In this case, the "minimum passing threshold" (c) is set at 60%. |
| Teaching methods | The course aims to give students mathematical tools for modelling and understanding the movement of the human body.<br>Theory (lecture) + practical sessions |
| Content | The course content will be divided into three parts:<br>- Anthropometry: concepts of the rigid body, the centre of gravity and moment of inertia<br>- Kinetic analysis: calculation of forces and moments of force in a static situation<br>- Dynamic situations and concepts of energy, work and power<br>The student will have to use the basics of biomechanics in an integrated way in the fields of motor science: analysis of joint movements; segmental modelling of the body; inertia; balance and posture; muscular leverage; energy transformation during a movement |
| Inline resources | Moodle |
| Other infos | This course is strictly reserved for FSM students and is not open to other UCLouvain students. |
| Faculty or entity in charge | FSM |

| Programmes containing this learning unit (UE) | | | | |
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| Program title | Acronym | Credits | Prerequisite | Learning outcomes |
| Bachelor in Motor skills : General | EDPH1BA | 4 | | |
| Bachelor in Physiotherapy and Rehabilitation | KINE1BA | 4 | | |