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| Course Name | Human Body Dynamics |
| Instructor Name | Gentiane VENTURE |
| Course Structure | Lecture and Exercise and Experiments |
| Course Credits | 3 |
| Course Overview | Learn how the human body moves |
| Course Key Words | Biomechanics, dynamics, musculo-skeletal system |
| Academic Goal | Understand the basic principle that allow the human body to move |
| Course Schedule | Human body dynamics introduction and historyHuman body dynamics useful mathDynamics equationsMusculoskeletal modellingGait modelingGait measurement (practical experiments)Gait controlOptimal controlInverse optimal controlMachine learning for human motion analysis |
| Textbooks, References, and Supplementary Materials | Provided when needed |
| Grading Philosophy(Percentage / Criteria / Methodology) | homework/project/test/proactive participation during classes (not attendance!!!) |