UCLouvain

# lbir1355

*2018*

| 3 credits | 22.5 h + 15.0 h | Q1 |
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| Teacher(s) | Ghislain Michel coordinator ;Larondelle Yvan ; |
| Language : | French |
| Place of the course | Louvain-la-Neuve |
| 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 | The written examination consists of a series of questions that require concise or detailed answers and problems solving ability. The performance developed during the laboratory training sessions are evaluated independently, via the laboratory report. |
| Teaching methods | Lectures will be given in a classroom. They consist of ex cathedra speeches and solved problems. The laboratory sessions aim at developing a scientific reasoning behaviour and improving classroom communication skills. Students are given a detailed evaluation of their performance.<br>The learning of basic concepts and vocabulary in English is stimulated. |
| Content | • Major fermentation pathways from archea and eubacteria with economical interest : alcohol, lactate, butyrate and butanol-acetone, mixed acid and butanediol, propionate and succinate, acetate, methane.<br>• Biochemical characterization and yield analysis; Omics approaches<br>• Biosynthesis of several secondary metabolites<br>• Students are trained to measure the metabolic activity of a model organism through laboratory sessions. |
| Inline resources | Slides shown in classroom and laboratory notes will be available via moodle. |
| Bibliography | • Bacterial Metabolism (Gottschalk)'<br>This course is based on the reference book ""Bacterial metabolism" G. Gottschalk . However the purchase of this book is not required. |
| Faculty or entity in charge | AGRO |

| Programmes containing this learning unit (UE) | | | | |
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| Program title | Acronym | Credits | Prerequisite | Aims |
| Master [120] in Chemical and Materials Engineering | KIMA2M | 3 | | |
| Master [120] in Biomedical Engineering | GBIO2M | 3 | | |
| Bachelor in Bioengineering | BIR1BA | 3 | | |