




The version you're consulting is not final. This course description may change. The final version will be published on 1st June.

| | | |
|--------------|-----------------|----|
| 3.00 credits | 22.5 h + 15.0 h | Q2 |
|--------------|-----------------|----|

| | |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Teacher(s) | Ghislain Michel (coordinator) ; |
| Language : | French |
| Place of the course | Louvain-la-Neuve |
| Prerequisites | <i>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.</i> |
| Learning outcomes | |
| 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. The learning of basic concepts and vocabulary in English is stimulated. |
| Content | <ul style="list-style-type: none"> • 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. • Biosynthesis of several secondary metabolites • Health benefits aspects are illustrated via selected themes • Protein purification technology • 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 | <ul style="list-style-type: none"> • Bacterial Metabolism (Gottschalk) 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) | | | | |
|------------------------------------------------------|------------------------|---------|--------------------------|-------------------------------------------------------------------------------------|
| Program title | Acronym | Credits | Prerequisite | Learning outcomes |
| Master [120] in Chemical and Materials Engineering | KIMA2M | 4 | |  |
| Master [120] in Biomedical Engineering | GBIO2M | 4 | |  |
| Bachelor in Bioengineering | BIR1BA | 3 | LBIR1250 |  |