


5.00 credits

30.0 h + 30.0 h

Q2

|                             |   |
|-----------------------------|---|
| Teacher(s)                  | Draye Xavier (coordinator) ;Lutts Stanley ;   |
| 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          | Written exam and evaluation of the group work (final presentation).   |
| Teaching methods            | Ex-catherdra course with practicals in groups and in project mode.  |
| Content                     | The water relations of the plant are detailed: notions of water potential and its components, water transport in the soil-plant-atmosphere continuum, stomatal regulation and the importance of water relations at the cell and tissue level. The bases of mineral nutrition are specified: interactions between the root system and the soil, notions and functions of essential elements, cellular and transcellular transport. The light phase of photosynthesis is described in relation to the structure of the photosynthetic apparatus. The dark phase is approached by integrating the problem of gas exchanges and the efficiency of water use. The transport of assimilates is detailed: loading and unloading of the phloem, distribution of assimilates according to source-well relationships. |
| Inline resources            | Moodle: powerpoint slides, modelling exercices  |
| Bibliography                | Transparents des cours.<br>Le cours suit assez fidèlement le livre (disponible en BST) Plant Physiology (Taiz and Zeiger).  |
| Faculty or entity in charge | AGRO  |

| Programmes containing this learning unit (UE) |                        |         |   |   |
|---|------------------------|---------|---|---|
| Program title                                 | Acronym                | Credits | Prerequisite  | Learning outcomes   |
| Bachelor in Bioengineering                    | <a href="#">BIR1BA</a> | 5       | <a href="#">LBIR1150</a> AND <a href="#">LBIR1151</a> |  |