

## 202-201 Plant Function

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| <b>Credit Points:</b>                    | 12.500   |
| <b>Level:</b>                            | Undergraduate  |
| <b>Dates &amp; Locations:</b>            | 2008,<br>This subject commences in the following study period/s:<br>Semester 1, - Taught on campus.  |
| <b>Time Commitment:</b>                  | Contact Hours: Twenty-four hours lectures, 36 hours practicals/tutorials Total Time Commitment: Not available  |
| <b>Prerequisites:</b>                    | 202-101 Chemistry for Land and Food Resources or 610-141 Chemistry; 202-103 Biology for Land and Food Resources or 650-141 Biology of Cells and Organisms.   |
| <b>Corequisites:</b>                     | None   |
| <b>Recommended Background Knowledge:</b> | None   |
| <b>Non Allowed Subjects:</b>             | None   |
| <b>Core Participation Requirements:</b>  | <p>&lt;p&gt;For the purposes of considering request for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Student Support and Engagement Policy, academic requirements for this subject are articulated in the Subject Overview, Learning Outcomes, Assessment and Generic Skills sections of this entry.&lt;/p&gt; <p>&lt;p&gt;It is University policy to take all reasonable steps to minimise the impact of disability upon academic study, and reasonable adjustments will be made to enhance a student's participation in the University's programs. Students who feel their disability may impact on meeting the requirements of this subject are encouraged to discuss this matter with a Faculty Student Adviser and Student Equity and Disability Support: &lt;a href="http://services.unimelb.edu.au/disability"&gt;http://services.unimelb.edu.au/disability&lt;/a&gt;&lt;/p&gt;</p> </p>  |
| <b>Coordinator:</b>                      | Dr Marc Nicolas  |
| <b>Subject Overview:</b>                 | <p>Plant Function is a functional approach to the question 'How do plants work?' and is delivered with an integrative, production-oriented approach. It is organised around three themes:</p> <ul style="list-style-type: none"> <li># biomass acquisition;</li> <li># biomass allocation; and</li> <li># environmental physiology: limitations to productivity.</li> </ul> <p>Common content will include:</p> <ul style="list-style-type: none"> <li># radiation, energy budgets and transfer, photosynthesis, photorespiration;</li> <li># water use, uptake and transpiration, xylem flow, stomatal control;</li> <li># biomass assimilation, translocation and storage, respiration, phloem;</li> <li># root growth and function, nutrients and nutrient uptake, nitrogen fixation;</li> <li># plant vegetative development, production of flowers and fruit, seed dormancy and germination; and</li> <li># abiotic factors affecting growth and productivity (deficiency or excess): light, temperature, nutrients, water, biotic factors affecting growth and productivity, secondary metabolism.</li> </ul> <p>It will be augmented by stream-specific content, including:</p> <ul style="list-style-type: none"> <li># crops (leaf area development, canopy light interception, dry matter partitioning);</li> <li># horticulture (plant selection, environmental modification, plant hormones);</li> </ul> |

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|                           | <p># forestry (lignin, water relations of trees, nutrient deficiencies in pines and eucalypts); and</p> <p># animals (inherent qualities of plants as food and feed, changes from manipulation).</p> <p>Practicals will cover topics in plant physiology, give skills in basic plant handling, field and greenhouse experimentation, and measurement and statistical analysis of populations of plants.</p>  |
| <b>Assessment:</b>        | A 3-hour exam (50%) and two assignments equivalent to 3000 words (each worth 25%).   |
| <b>Prescribed Texts:</b>  | None   |
| <b>Recommended Texts:</b> | Information Not Available  |
| <b>Breadth Options:</b>   | <p>This subject is a level 2 or level 3 subject and is not available to new generation degree students as a breadth option in 2008.</p> <p>This subject or an equivalent will be available as breadth in the future.</p> <p>Breadth subjects are currently being developed and these existing subject details can be used as guide to the type of options that might be available.</p> <p>2009 subjects to be offered as breadth will be finalised before re-enrolment for 2009 starts in early October.</p> |
| <b>Fees Information:</b>  | Subject EFTSL, Level, Discipline & Census Date, <a href="http://enrolment.unimelb.edu.au/fees">http://enrolment.unimelb.edu.au/fees</a>  |
| <b>Generic Skills:</b>    | Information Not Available  |
| <b>Related Course(s):</b> | <p>Bachelor of Agricultural Science</p> <p>Bachelor of Agricultural Science</p> <p>Bachelor of Agricultural Science/Bachelor of Commerce</p> <p>Bachelor of Agriculture and Bachelor of Commerce</p> <p>Bachelor of Forest Science</p> <p>Bachelor of Forest Science</p> <p>Bachelor of Horticulture</p> <p>Bachelor of Natural Resource Management</p> <p>Bachelor of Natural Resource Management</p>   |