



<b>Title:</b>	Botany APPROVED		
<b>Long Title:</b>	Botany		
<b>Module Code:</b>	BOTA6001	<b>Duration:</b>	1 Semester
<b>Credits:</b>	5		
<b>NFQ Level:</b>	Fundamental		
<b>Field of Study:</b>	Botany		
<b>Valid From:</b>	Semester 1 - 2016/17 ( September 2016 )		
<b>Module Delivered in</b>	<a href="#">8 programme(s)</a>		
<b>Module Coordinator:</b>	Brigid Lucey		
<b>Module Author:</b>	JOSEPH CROKE		
<b>Module Description:</b>	This module is designed to: • Develop student awareness and interest in plants and plant growth and development. • Provide a basic understanding of plant classification and taxonomy. • Prepare the student for furthering the utilisation of plant materials in herbal and horticulture sciences. • Develop an understanding of how plants relate to ecology and the environment at large.		
<b>Learning Outcomes</b>			
<i>On successful completion of this module the learner will be able to:</i>			
LO1	Outline the systems of plant classification and associated life cycles		
LO2	Describe and identify the structural elements of plants morphology and anatomy		
LO3	Perform an identification and naming of plants and plant parts.		
LO4	Describe the processes involved in the growth and development of plants		
LO5	Discuss ecology and how plants relate to the environment		
<b>Pre-requisite learning</b>			
<b>Module Recommendations</b>			
<i>This is prior learning (or a practical skill) that is strongly recommended before enrolment in this module. You may enrol in this module if you have not acquired the recommended learning but you will have considerable difficulty in passing (i.e. achieving the learning outcomes of) the module. While the prior learning is expressed as named MTU module(s) it also allows for learning (in another module or modules) which is equivalent to the learning specified in the named module(s).</i>			
<b>Incompatible Modules</b>			
<i>These are modules which have learning outcomes that are too similar to the learning outcomes of this module. You may not earn additional credit for the same learning and therefore you may not enrol in this module if you have successfully completed any modules in the incompatible list.</i>			
No incompatible modules listed			
<b>Co-requisite Modules</b>			
No Co-requisite modules listed			
<b>Requirements</b>			
<i>This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed. You may not enrol on this module if you have not acquired the learning specified in this section.</i>			
No requirements listed			

**Module Content & Assessment**

**Indicative Content**

**Classification**

Systematics, flowering plants, non-flowering plants, bacteria, fungi, algae, ferns, life cycles, reproduction.

**Plant Anatomy**

Cell structure and function, genes, cell division, tissue types and function.

**General Plant Morphology & Function**

Root structure and function, leaf structure and function, flower structure and function, modified plant parts, habitats and adaptations

**Plant Growth and Development**

Trees, shrubs, climbers, herbs, horticultural classification, growth and differentiation, tropism, peridism.

**Plant Physiology**

Photosynthesis, respiration, transpiration, pollination, plant breeding, genetics.

**Assessment Breakdown**

	%
Course Work	100.00%

**Course Work**

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Other	In examination setting student completes life cycle charts and answers short questions relating to them.	1	20.0	Week 6
Project	Student assembles a collection of named plant material, according to physical and morphological characteristics, appropriate to selected categories	2,3,5	30.0	Week 12
Practical/Skills Evaluation	Student identifies from specimens or diagrams, plants and or plant parts and evaluates their function.	2,3,4,5	50.0	Week 13

No End of Module Formal Examination

**Reassessment Requirement**

**Coursework Only**

*This module is reassessed solely on the basis of re-submitted coursework. There is no repeat written examination.*

**The institute reserves the right to alter the nature and timings of assessment**

**Module Workload**

<b>Workload: Full Time</b>				
<i>Workload Type</i>	<i>Workload Description</i>	<i>Hours</i>	<i>Frequency</i>	<i>Average Weekly Learner Workload</i>
Lecture	Delivery of module content	2.0	Every Week	2.00
Lab	Practical	2.0	Every Week	2.00
Independent & Directed Learning (Non-contact)	Study lecture and practical material	3.0	Every Week	3.00
Total Hours				7.00
Total Weekly Learner Workload				7.00
Total Weekly Contact Hours				4.00

<b>Workload: Part Time</b>				
<i>Workload Type</i>	<i>Workload Description</i>	<i>Hours</i>	<i>Frequency</i>	<i>Average Weekly Learner Workload</i>
Lecture	Delivery of Module Content	2.0	Every Week	2.00
Lab	Practical	2.0	Every Week	2.00
Independent & Directed Learning (Non-contact)	Study lab and lecture material, Learner assembles and identifies material for plant collection	3.0	Every Week	3.00
Total Hours				7.00
Total Weekly Learner Workload				7.00
Total Weekly Contact Hours				4.00

## Module Resources

### Recommended Book Resources

- Parnell J., Curtis T. and Cullen E. 2012, *Webb's an Irish Flora*, 8th Ed., Cork University Press [ISBN: 978185918478]
- Francis Rose 2006, *The wild flower key*, Frederick Warne London [ISBN: 0-7232-5175-4]

### Supplementary Book Resources

- Hodson M.J., and Bryant J.A 2012, *Functional Biology of Plants*, 1st Ed., Wiley-Blackwell [ISBN: 978-047069939]
- Ray F. E., and Eichhorn Susan E. 2012, *Raven Biology of Plants: International Edition*, 8th Ed., W.H. Freeman New York [ISBN: 978-146411351]
- Matuseth, J.D., 2012, *Botany: An Introduction to Plant Biology*, 5rd Ed., Jones and Barlett Publishers [ISBN: 978-144966580]
- Ben-Erik van Wyk, Michael Wink 2004, *Medicinal plants of the world*, Timber Press Portland [ISBN: 9780881926026]
- Niall MacCoitir 2008, *Irish Wild Plants Myths Legends and Folklore*, The Collins Press Ireland [ISBN: 978-1905172696]
- Averis, B. 2013, *Plants and Habitats: An Introduction to Common Plants and Their Habitats in Britain and Ireland*, 1 st Ed., Ben Averis [ISBN: 9780957608108]

*This module does not have any article/paper resources*

### Other Resources

- Website: Grieve, M 2007, *A Modern Herbal*  
<http://botanical.com/>
- Website: Radboud University Nijmegen 2005, *Virtual Classroom Biology*  
[http://www.vcbio.science.ru.nl/eng/virtu\\_allessons/](http://www.vcbio.science.ru.nl/eng/virtu_allessons/)
- Website: Rocky Mountain Herbal Institute 1998, *A World History of Herbology and Medical Herbalism*  
<http://www.rmhiherbal.org>

**Module Delivered in**

<b>Programme Code</b>	<b>Programme</b>	<b>Semester</b>	<b>Delivery</b>
CR_SAGBI_8	<a href="#"><u>Bachelor of Science (Honours) in Agri-Biosciences</u></a>	3	Mandatory
CR_SHERB_8	<a href="#"><u>Bachelor of Science (Honours) in Herbal Science</u></a>	1	Mandatory
CR_SNHSC_8	<a href="#"><u>Bachelor of Science (Honours) in Nutrition and Health Science</u></a>	2	Elective
CR_SPHBI_8	<a href="#"><u>Bachelor of Science (Honours) in Pharmaceutical Biotechnology</u></a>	2	Elective
CR_SAGBI_7	<a href="#"><u>Bachelor of Science in Agri-Biosciences</u></a>	3	Mandatory
CR_BHORT_7	<a href="#"><u>Bachelor of Science in Horticulture</u></a>	1	Mandatory
CR_SCEBS_8	<a href="#"><u>Common Entry Biological Sciences</u></a>	3	Elective
CR_SBIOS_6	<a href="#"><u>Higher Certificate in Science in Applied Biosciences</u></a>	3	Elective