

Module code

SPB-3405

Type of module

Undergraduate: Biological Sciences – Elective

Mycology



Modular credits

4

Total student
engagement

56 hours

Prerequisite

**SPB-2202 (Cells,
Biomolecules and
Microbiology)**

Anti-requisite

None

Aims

To provide students with a foundational understanding of fungal biology and diversity for sustainable applications.

Module learning outcomes (MLO)

On successful completion of this module, a student will be expected to be able to:

MLO 1

Analyse major taxonomic groups, morphological features and life cycles of fungi.

MLO 2

Analyse ecological roles and biotechnological applications of fungi in agriculture, medicine and industry.

MLO 3

Perform standard laboratory techniques to culture and identify fungi using morphological and staining methods.

MLO 4

Conduct a group-based learning activity to safely document specimens, detailing habitat, morphology, and preliminary identification.

MLO 5

Evaluate current mycological research and communicate critical insights through student-led seminars.

Module contents

Introduction to mycology: History, scope, terminology	Fungal morphology	Nutrition, metabolism and growth
Reproduction and life cycles (sexual and asexual)	Classification, phylogeny and biodiversity	Spore dispersal mechanisms and ecology
Plant-fungi interactions: Pathology, mycorrhizae, lichens, endophytes	Animal and human pathogenic fungi (medical mycology)	Industrial and food-related fungi: Fermentation, mushroom cultivation
Food spoilage and mycotoxins	Fungal biotechnology: Enzymes, biocontrol, bioremediation	Environmental mycology: Decomposition and ecosystem roles

Assessment

60% **40%**
Examination Coursework



■ Examination — 60% ■ Practical reports — 10% ■ Oral presentation — 20% ■ Individual assignment — 10%

Formative assessment

Weekly discussion
and feedback

Summative assessment

COMPONENT	WEIGHTING
Examination	60%
Coursework	40%
Individual	40%
Practical reports	10%
Oral presentation	20%
Individual assignment	10%

Graduate attributes and skills

Programme learning objectives (PLO) addressed

1	PLO 1 (Fundamental Theoretical Knowledge in Biology)	2	PLO 2 (Application of Scientific Methods and Data Analysis)
3	PLO 3 (Integrated Laboratory, Field and Technical Skills)	4	PLO 4 (Critical Thinking and Problem-Solving Skills)
5	PLO 5 (Sustainability and Responsible Practice)		

Sustainability concept addressed

2	SDG 2 Zero Hunger
3	SDG 3 Good Health and Well-Being
12	SDG 12 Responsible Consumption and Production

Digital skills/software used (not limited to)

- Microsoft Office software (e.g. Word, Excel, PowerPoint)
- Application software (e.g. Web browsers, statistical program, cloud-based storage)
- eLearning platforms (e.g. CANVAS, MS Teams, Zoom)
- PDF/HTML document authoring software for distributing lecture notes and diagrams
- Video recording and editing tools used for lecture captures and eLearning lessons

Micro-credentialling option

No

Stackable towards GenBESTARI Undergraduate Degree Programme or other relevant Lifelong Learning Programmes

No

Document details

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