Module Proforma

Approved, 2023.01

Summary Information

Module Code	7514CATSCI
Formal Module Title	Ecological Assessment
Owning School	Biological and Environmental Sciences
Career	Postgraduate Taught
Credits	15
Academic level	FHEQ Level 7
Grading Schema	50

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Colm Bowe	Yes	N/A

Module Team Member

Contact Name	Applies to all offerings	Offerings

Partner Module Team

Contact Name	Applies to all offerings	Offerings

Teaching Responsibility

LJMU Schools involved in Delivery
LJMU Partner Taught

Partner Teaching Institution

Institution Name
Centre for Alternative Technology

Learning Methods

Learning Method Type	Hours
Lecture	8
Practical	16
Seminar	6

Module Offering(s)

Offering Code	Location	Start Month	Duration
SEP-PAR	PAR	September	12 Weeks

Aims and Outcomes

Aims	a) Study and understand research based methods which have been developed to assess key concepts in sustainable ecology, such as biodiversity, carbon storage and nutrient status and forms of ecosystem functioning.b) Understand concepts of ecosystem health and functioning and carry out an assessment of habitat function, habitat quality and health. c) Practice the use of, and evaluate the value of, identification techniques for flora and fauna which focus on different taxonomic levels and morphological-functional groups. d) Show critical awareness of the value of local, national, international and traditional records of ecology, ecological health and ecological change and know how to access such records. e) Use multivariate data and expert knowledge to suggest management plans for ecosystems or habitats.

Learning Outcomes

After completing the module the student should be able to:

Code	Description
MLO1	Critically evaluate methods for monitoring aspects of ecosystem health and functioning, and relate ecosystem health and functioning to local, national and global sustainability.
MLO2	Synergize multivariate information on ecosystems to make judgments on an ecosystem or habitat functioning, stability and resilience and where appropriate, devise management recommendations.
MLO3	Develop a deep and systematic understanding of the value of different ecological data sets and types of data in assessing and monitoring ecosystems and habitats.

Module Content

Outline Syllabus
Ecological surveys, functional habitat mapping, definitions of ecosystem health and how this might be determined. Recognizing habitat values such as carbon retention, biodiversity, and regulating services. The value and availability of local, national and international data sets, value of citizen science, local and traditional environmental knowledge. Management scenarios to maximize ecosystem health.

Module Overview

Additional Information
Indicative References:Berkes, F., Colding, J. and Folke, C. (2000) Rediscovery of traditional ecological knowledge as adaptive management. Ecological applications, 10(5), pp.1251-1262.de Bello, F., Lavorel, S., Díaz, S., Harrington, R., Cornelissen, J.H., Bardgett, R.D., Berg, M.P., Cipriotti, P., Feld, C.K., Hering, D. and da Silva, P.M. (2010) Towards an assessment of multiple ecosystem processes and services via functional traits. Biodiversity and Conservation, 19(10), pp.2873-2893.Rapport D J, Costanza R, McMichael A J. (1998) Assessing ecosystem health. Tree 13(10) 397-402Raymond, C.M., Fazey, I., Reed, M.S., Stringer, L.C., Robinson, G.M. and Evely, A.C., 2010. Integrating local and scientific knowledge for environmental management. Journal of environmental management, 91(8), pp.1766-1777.Silvertown, J., 2009. A new dawn for citizen science. Trends in ecology & evolution, 24(9), pp.467-471.Wheater, C.P. (2011) Practical Field Ecology. Paperback. Wiley-Blackwell's.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Learning Outcome Mapping
Report	Report	80	0	MLO2, MLO1
Presentation	Presentation	20	0	MLO3