EV7136 Module Specification

Module Title: Restoration Ecology	Module Code: EV7136 Level: 7 Credit: 15 ECTS credit: 7.5	Module Leader: Jane Fisher
Pre-requisite: none	**Pre-cursor: none**	
Co-requisite: none	**Excluded combinations: none**	**Suitable for incoming study abroad?** N
Location of delivery: CAT and online – blended delivery		

Summary of module for applicants:

In this module students will study the role of ecosystems in sustainability with a focus on their role in biogeochemical cycling, as a sink for carbon and for providing other ecosystem functions. Students will investigate methods of restoration of habitats, including at landscape and global scales, examine the setting of restoration goals and the assessing the success of restoration projects. The module will also analyse the theoretical science and practical implications of species reintroductions, rewilding and invasive species control, the value of policy, community involvement and public support, health and wellbeing.

Main topics of study:

Ecosystem change over time and space, biodiversity and connectedness, stabilization wedges, land sparing v land sharing debate.

The science behind rewilding, reintroductionand management of invasive species, phytoremediation and restoration of peri-urban spaces.

The role of communities, impact of restoration on communities and economies, and the impact of national and international legislation.

This module will be able to demonstrate at least one of the following examples/ exposures

Live, applied project ☒
Company/engagement visits ☐
Company/industry sector endorsement/badging/sponsorship/award ☐

Learning Outcomes for the module

Where a LO meets one of the UEL core competencies, please put a code next to the LO that links to the competence.

- *Digital Proficiency - Code = (DP)*
- *Industry Connections - Code = (IC)*
- *Social & Emotional Intelligence - Code = (SEI)*
- *Physical Intelligence - Code = (PI)*
- *Cultural Intelligence - Code = (CI)*
- *Community Connections & UEL Give Back - Code = (CC)*
- *Cognitive Intelligence – Code = (COI)*
- *Enterprise and Entrepreneurship (EE)*

At the end of this module, students will be able to:

Knowledge

1 Have the knowledge to critically evaluate methods for restoring ecological functions and debate restorationgoals at local, national and international scales and in natural, semi natural and peri-urban environments. (COI)

Thinking skills

2 Undertake complex analyses of the theory, practical implications and complexitiesaround restoring habitats with a focus on the effectiveness of rewilding projects, thereintroduction of species and removal of invasive species. (COI, IC, DP)

Subject-based practical skills

3 Evaluate real-world habitat and ecosystem scale restoration projects, taking into account conservation biology targets as well as social, political and economic implications to critically evaluate their success. (COI, IC, DP)

Skills for life and work (general skills)

4 Effectively communicate (written) to a wider audience (DP) (COI).

Teaching/ learning methods/strategies used to enable the achievement of learning outcomes: For students studying onsite and by distance learning:

The factual content of the module is taught through lectures, seminars, practical workshops, presentations, demonstrations and tutorials, and throughout this process an active exchange of views and opinions is encouraged. Students have access to MS Teams where they can access recorded and written support material, meet with their peers and a tutor to discuss any academic issue. Both theoretical and practical aspects are covered both onsite and through interactive sessions on Teams.

There is a formative learning element to the module to allow the students to receive critical feedback on their work without the pressure of marked assessment.

For distance learning (DL) students, learning will be supported through streamed and recorded Internet-based lectures (of the onsite lectures), situation related practical exercises, seminars and tutorials.

Lectures onsite and through MS Teams highlight key concepts, models and frameworks, and integrate additional resources (such as journal articles). They encourage deep learning through the use of self-assessment questions which encourage students to engage with the topic, to help students understand new topics and skills.

Assessment methods which enable students to demonstrate the learning outcomes for the module; please define as necessary:	**Weighting:**	**Learning Outcomes demonstrated:**
Management report (1800 words max)	60%	**1,2**
Essay (12oo words max)	40%	**3**

Reading and resources for the module:
These must be up to date and presented in correct Harvard format unless a Professional Body specifically requires a different format
Core

Recommended

Corlett, R.T., 2016. Restoration, reintroduction, and rewilding in a changing world. *Trends in ecology & evolution*, *31*(6), pp.453-462.

Isbell, F., Craven, D., Connolly, J., Loreau, M., Schmid, B., Beierkuhnlein, C., Bezemer, T.M., Bonin, C., Bruelheide, H., De Luca, E. and Ebeling, A., 2015. Biodiversity increases the resistance of ecosystem productivity to climate extremes. *Nature*, *526*(7574), p.574.

Leitao, R.P., Zuanon, J., Villéger, S., Williams, S.E., Baraloto, C., Fortunel, C., Mendonça, F.P. and Mouillot, D., 2016. Rare species contribute disproportionately to the functionalstructure of species assemblages. *Proc. R. Soc. B*, 283(1828), p.20160084.

Miller, J.R. and Hobbs, R.J., 2007. Habitat restoration—Do we know what we're doing? *Restoration Ecology*, *15*(3), pp.382-390.

POST (2016) Rewilding and Ecosystem Services, report http://researchbriefings.files.parliament.uk/documents/POST-PN-0537/POST-PN-0537.pdf

Provide evidence of how this module will be able to demonstrate at least one of the following examples/ exposures

***Live, applied project*.**
Visit (live or virtual) to an ongoing restoration project

Company/engagement visits

Company/industry sector endorsement/badging/sponsorship/award

Indicative learning and teaching time (10 hrs per credit):	**Activity**
1. Student/tutor interaction: 30 hours	Lectures, seminars, practical classes and workshops, external visits (live or virtual)
2. Student learning time: 120 hours	Seminar reading and preparation/assignment preparation/ background reading/ on-line activities,
Total hours (1 and 2): 150 hours	

For office use only. (Not required for Programme Handbook)

Assessment Pattern for Unistats KIS (Key Information Sets)	**Weighting:**
Coursework *(written assignment, dissertation, portfolio, project output)*	
Practical Exam *(oral assessment, presentation, practical skills assessment)*	
Written Exam	

HECoS Code:	
UEL Department:	