# Chartered Institute of Ecology and Environmental Management (CIEEM) accreditation criteria.

The full-time and part-time MSc Wildlife Biology and Conservation programmes are accredited with the Chartered Institute of Ecology and Environmental Management (CIEEM).

This carries with it the assumption that applicants have covered all or most of these criteria at undergraduate level and explains why we can only accept those with a good science background onto these study modes.

While the distance learning mode is not accredited, we suggest that those with an alternative background seek to gain knowledge and experience of some of these criteria if they wish to apply in the future.

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| **A. Ecological Concepts**   1. Ecological organisational concepts and classification – e.g. biomes, biotopes, ecosystems, habitats, communities, populations, species, organisms 2. Principal world/UK biotopes, biogeographical regions and habitats– e.g. forests, wetlands, coasts, oceans, grasslands, deserts, polar, boreal, temperate, tropical and sub-tropical, man-made habitats (e.g. agriculture and urban) 3. Ecological Concepts- e.g. energy flow, nutrient cycling, species diversity, habitat diversity, succession, ecosystem change, ecosystem services. Population ecology – e.g. carrying capacity, migration, dispersal, the role of limiting environmental factors, competition, predation. Community ecology – e.g. food webs, trophic structures, inter-specific and intra-specific relationships 4. Abiotic factors and impact on animal and plant distribution – e.g. hydrology – salinity, water flow; geomorphology – landforms and their influence on ecological processes and landscapes, soil development and soil characteristics   **B. Human Ecology and Impacts**   * 1. Economic and social aspects of ecology and the natural environment, historic and current land use, landscape ecology, agricultural ecology, urban ecology, ecosystem services and impact and influence of ecotourism   2. Environmental pollution – climate change (causes, impacts and mitigation), major pollutants and their sources, critical loads, effect on ecosystems (e.g. acidification (causes and effects on freshwater, forest and upland ecosystems), eutrophication (freshwater ecosystems) and nutrient enrichment (terrestrial ecosystems)   **C. Biodiversity**   1. Biodiversity – Concepts of biodiversity (genetic biodiversity, species biodiversity, community biodiversity, habitat diversity), concepts of threat vulnerability, rarity. Major causes of biodiversity loss   **D. Environmental Policy and Law**   1. Environmental policy and legal frameworks – Awareness of contemporary environmental policy approaches – economic and legal. 2. National environmental policy, related policy and legal frameworks – Relevant planning policy and guidance, impact of planning policy on the environment, development control both landscape-scale planning policy (e.g. river basin management plans, green infrastructure, integrated coastal management) or site scale (e.g. habitat and species designations)   **E. Environmental management**   1. Assessing impact of change – environmental impact and risk assessment, avoid – mitigate – compensate hierarchy. Stakeholder consultation. Managing potential user conflict 2. Management planning (e.g. for habitats, resources, recreation). Habitat and species management – principles and techniques of species and habitat translocation 3. Sustainability - concept and principles of sustainability including conventions, international agreements and governmental policies, the meaning of low carbon economy and green economy.   **F. Species Identification and Survey Skills**   1. Identification –principles of biological classification and taxonomy, use of biological keys. Practical experience of a range of taxa. 2. Survey Design and Sampling Strategies – Survey methods and practice e.g. vegetation description, habitat description, species survey methods, Phase 1 habitat survey techniques, National Vegetation Classification 3. Does the entire programme meet the minimum relevant practical work requirements for CIEEM accreditation? (30 days for BSc)   **G. Professional Skills**   * 1. Technical report requirements; professional ethics; industry requirements   2. Data management, interpretation and data analysis. Data presentation |