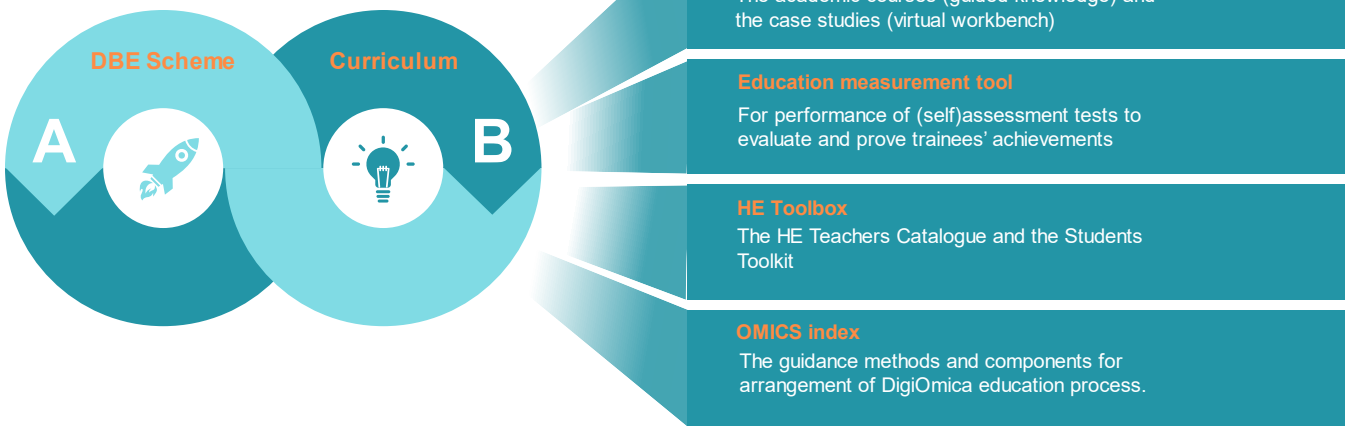
Cooperation Partnership for Digital Higher Education in Integrated Omics for Environmental Sustainability

2023-1-BG01-KA220-HED-000155777

DigiOmica Project - the Omics Journey in the Digital World

https://digi-omica.eu/

OMICS e-Learning



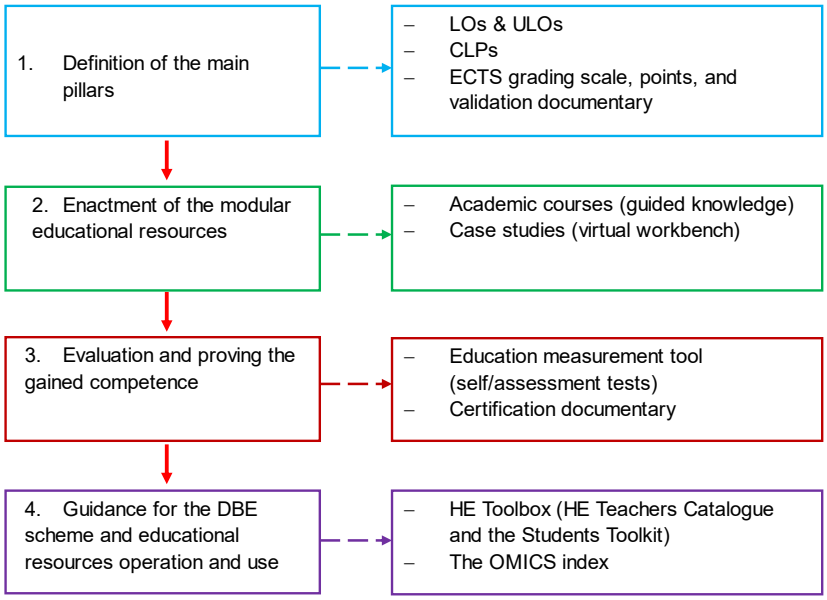
DigiOmica DBE Scheme

Concept

An instrument that organizes and delivers the innovative educational curriculum 'Integrated Environmental Omics' grounded on the EQF/NQF/ECTS strategic system for arrangement and performance of a HE process for competencies gaining and assessment.

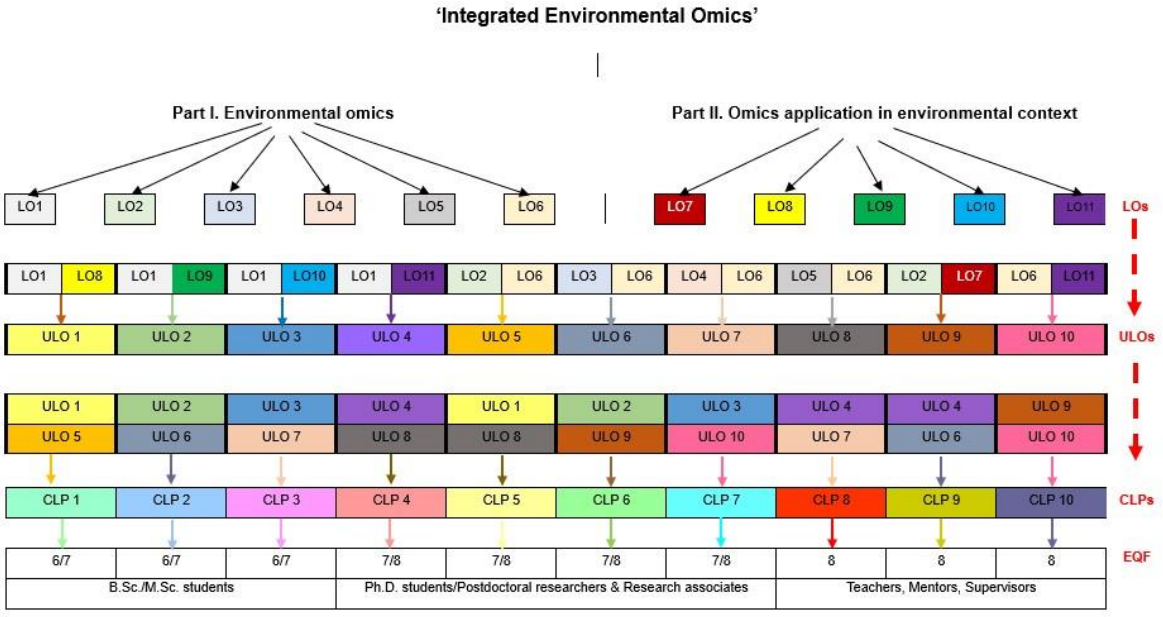
Structure

The DBE scheme is structured on the DigiOmica digital platform as an ICT-based technical framework that enhances the learning process. The platform hosts the digital hub 'OMICS e-Learning' that operates according to the DBE scheme principles and exploits collaborative learning tools for communication, presentation, and assessment of the learning process and its results



DigiOmica DBE Scheme

Customized Learning Pathways



WP3 Progress & Results

Module 1

Presents knowledge about eDNA as a tool for monitoring species, populations and communities at molecular level

Module 2

Presents knowledge about transcriptomics and landscape transcriptomics essentials and performance of transcriptomic studies of microbial communities

Module 7

Presents knowledge about environmental transcriptomics linking genetic potential with microbial biogeochemical activity

Module 8

Presents knowledge about the use of microorganisms as soil health biomarkers and theoretical and practical insights in genomics / metagenomic studies of soil microbial communities

Module 3

Presents knowledge about proteomics and environmental proteomics essentials and the relevant to them methodological and technical innovations

Module 4

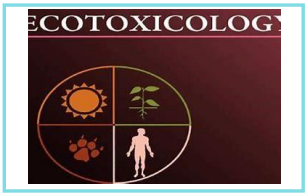
Presents knowledge about environmental metabolomics, its major categories and related methodological and technical innovations

Module 9

Presents knowledge about utilizing omics techniques in aquatic toxicology, the skills to effectively interpreting omics data of aquatic toxicology, and enhance risk assessment strategies

Module 10

Presents knowledge about 'Omics' approaches to study the negative effects of air pollutant exposure and the impact of epigenomic modifications in air pollution research



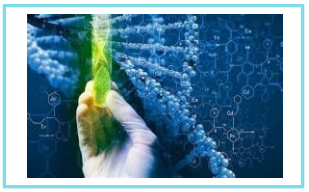
Module 5

Presents knowledge about the fields of ecotoxicology and the basic principles and types of omics technologies applied to understand and interpret ecotoxicology research data in environmental risk assessments

Module 6

Presents knowledge about the bioinformatics methods and software tools for understanding biological data in environmental databases

WP3 Progress & Results



Module 11

Presents knowledge about the multiomics holistical approach in ecological research for biotechnological applications, and outline its prospects and challenges

DigiOmica Consortium

01 **IOCCP – BAS**
Project coordinator

02 **Sofia University :St. Kl. Ohridski”**

03 **R&D Centre Biointech Ltd.**

04 **University of Granada**

05 **Gazi University**

NEWSLETTER 2

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Enriching lives, opening minds