Course title: " **Mathematical modelling for prediction Crop yields"**

Course description: This interdisciplinary course provides students with skills to develop AI and mathematical methods for predicting crop yields in different ecological lands. The students from Armenia, Ukraine, Moldova and Georgia investigate how AI, environmental data and local agricultural knowledge can be combined to promote food security.

Target Student Group: Post graduate and graduate students from :Environmental Science /Agronomy, Computer science, mathematics: Universities in Armenia, Georgia,Moldova and Ukraine.

Innovative Teaching Approuch:

- **Flipped classroom:** Students study mathematical modelling concepts before class using interactive video modules
- **Problem based learning:** In class-time is devoted to solving crop yields problems using linear optimal programming method
- **Virtual Simulation Labs:** Students use simulation to test their yield redictionmodels.

Technology and Digital Tools:

- Modelling with Python and write a code
- Using the average values of plants
- Calculating the profit

Assessment Strategy:

-Group project 60%

-peer evaluation 40%