

Agricultural Environmental Management Engineering MSc

Subjects of Final Examination

"A"

Environmental management

Natural resource utilization in agriculture. Soil as a potentially renewable natural resource. Soil – plant relationships. Protection and improvement of production sites. Soil protection and water management in hilly areas. Water damage protection, water utilization. Water management in plain areas. Atmospheric resource utilization in agriculture. Preparation to the possible agricultural consequences of climate change. Research methodology for environmental phenomena. Regional development and landscape management. Assessment of environmental conditions and modelling environmental systems. Application of geographical information system in agriculture. Application of remote sensing in agriculture. Environmental measurement techniques. Advantages and risks of GMO. Waste management and utilization. Environmental risk assessment and management. Environmental aspects of forestry. Relations of nature protection and agriculture.









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Environmental protection

Structure and tasks of agricultural public administration (agriculture, water management, nature protection)

Agricultural aspects of the EU Water Framework

Quality management in the agriculture

Environmental management in the agriculture

Elements of environmental planning: environmental policy, strategy, concept, programme, project

Macro and micro economic aspects of the environmental and agricultural relations

Global environmental problems and alternative solutions

Environmental protection in the EU

Sustainable development

International environmental conferences and agreements

Causes of soil degradation and restoration alternatives

Environmental monitoring and information systems

Agricultural best management practices

Code of good agricultural practice (EUREPGAP/GLOBALGAP)

Common Agricultural and Rural Policy for Europe (CARPE)

Natural resource utilization in agriculture.

Soil as a potentially renewable natural resource.

Soil – plant relationships.

Protection and improvement of production sites.

Soil protection and water management in hilly areas.

Sustainable agricultural systems

NATURA 2000, nature and biodiversity policy of the EU. Crop production in protected and environmentally sensitive areas Soil nutrient management and its environmental aspects in the EU Environmental aspects of agricultural water management Environmental aspects of crop protection technologies (pest and weed control) Environmental aspects of the soil cultivation techniques Ecological/organic farming Conventional crop production and its environmental impacts Integrated crop production and its environmental impacts Precision agriculture and its environmental aspects Renewable resources in agriculture Gene protection in animal breeding and its environmental aspects Animal breeding in environmentally sensitive areas Intensive animal breeding and its environmental impacts Law on animal breeding, feeding and well-being and its environmental aspects Environmental risk management of animal breeding farms Biotechnologies in animal breeding and their environmental aspects Grass management and its environmental aspects Plant and animal product market control in the EU Food control and consumer protection in the EU The Single Payment Scheme (SPS) in the EU

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Environmental technologies

Effects of air contaminants on living and non-living environment, emission and immission control Elimination technologies for dust, aerosols and gaseous contaminants Quality parameters of surface water and the water quality classification system Technical methods and legal control of water quality protection Urban sewage treatment technologies, natural sewage treatment Biogas production, starting materials and technologies Composting, starting materials and technologies Sewage sludge and sewage sludge compost utilization in the agriculture and its legal control Fate and transport of contaminants in soil and shallow ground water Soil remediation technologies, in situ and ex situ methods Waste management in agriculture, food production and urban areas Hazardous waste treatment in the agriculture Environmental risk assessment procedures and methods Environmental impacts of noise, law for noise control Solar energy utilization in the agriculture, applications, technologies Wind energy utilization in the agriculture, applications, technologies Agricultural water utilization technologies, drought, flood and excess water management Geothermal energy utilization in the agriculture, applications, technologies Bioethanol production, starting materials and technologies **Biomass utilization**