

# TEACHING SUBJECTS IN DEPARTMENT

## Bachelor's degree

№	Disciplines	Brief information about the discipline
1	Soil science and farming	Students study theoretical basics of soil forming process, general physical and physical mechanical peculiarities on the base of irrigational and melliorative systems, principles and technological reasons of land use.
2	Environmental Biotechnology	Students study theoretical and practical basics and peculiarities of biotechnology. They obtain knowledge about the methods of biotechnology: Active combinations on the base of natural raw materials.
3	Fundamentals of Soil Science and Crop Production	Purpose of the subject: The subject "Fundamentals of Soil Science and Plant Growing" within the framework of the requirements of the field of agrotechnical education provides students with a theoretical and practical basis of knowledge in the field of soil science, agriculture and botany, the process of soil formation, soil properties, the nature of soil distribution and their ecological and reclamation status. Improvement measures, training in agro-technological processes used in agriculture, their application in production practice, studying the theoretical and practical aspects of the formation of practical skills in the technology of growing major crops.
4	Agriculture and plant growing	<p>The purpose of teaching the subject is the structure of plant organs, living conditions, plant biology, properties and characteristics of plants, soil cultivation, seeds and sowing, organic and mineral fertilizers, to develop knowledge and skills in combating weeds, combating them. diseases and pests of plants, irrigation of crops, agricultural technology of agricultural crops, crop rotation.</p> <p>The task of science is theoretical knowledge, practical skills, life factors of plants and the laws of agriculture, scientific foundations of crop rotation, basic soils, pre-sowing and sowing tillage, seeds and their sowing, care, fertilization, irrigation. a methodological approach and the formation of a scientific outlook on the use of modern achievements in decontamination in the fight against weeds, diseases and pests.</p>
5	Soil Degradation	<p>In the subject "Soil Degradation", students will learn about degradation processes in the Republic, soils and land resources of Uzbekistan, types and factors of soil degradation, mechanical soil degradation, physical soil degradation, chemical soil degradation, soil pollution and deoxidation. Biological activity of degraded soils, erosion, salinization, desertification, climate change and soil degradation, remote methods and technologies of GAT for monitoring degraded soils, regulatory documents developed for the rational use and protection of soils of the Republic of Uzbekistan, genesis, geography, evolution, their properties and information on their changes as a result of strong anthropogenic factors and information on the management of their productivity.</p>

- 6 Soil science The purpose of teaching the subject is to develop students' knowledge of soil science, soil water, heat, air properties, soil colloids, soil formation process, soil distribution, properties, morphological features, salinity, erosion, soil gradation, soil maps, soil maps. protection, measures to improve soil fertility and indicators for assessing soil quality. The task of science is theoretical knowledge, practical skills, the formation of soils in Uzbekistan, morphological features, physical and mechanical properties of the soil, the formation of the organic part of the soil, salinity, factors causing soil erosion, measures to increase the measure of productivity, a methodological approach to the application of their achievements in production and the formation of a scientific worldview.
- 7 Biology and microbiology The goal of teaching science is to provide students with knowledge about the biological laws of organisms, science, high yields of agricultural crops in the country, agricultural technology, plant protection from diseases and pests, the primary source, the gene pool of field crops and its application. , creation of a primary source for selection (hybridization, artificial mutagenesis, artificial creation of polypoids, etc.), methods and types of selection and the order of their implementation, as well as the mechanism of transmission of signs and characteristics. students must know the laws of biology. It consists in developing the skills to apply in practice the theoretical and practical knowledge gained in this discipline.
- 8 Landscape science The science of "landscape science" as an important part of natural geography is formed and developed in connection with the practical needs of human society. He is engaged in the creation of scientific foundations for increasing the efficiency of interaction between man and nature, as well as the development of rules and methods for constructing cultural landscapes. The teaching of the landscape as an important part of geographical science serves as a scientific and theoretical basis for the introduction of natural geography into practice. The subject "Landscape" studies the structure of the earth's crust, its properties, development, changes under the influence of natural and anthropogenic factors, ways of their effective use in the national economy.

## Master's degree

№ Discipline	Brief information about the discipline
Meliorative soil science	The subject of ameliorative soil science studies the meliorative state of lands and their properties, the scientific basis of agro and hydromeliorative measures, the choice of crops, agrotechnology, the allocation of seed crops and the use of scientifically based methods.