

**T.C.
GAZIANTEP UNIVERSITY
NURDAGI VOCATIONAL SCHOOL**



**PARK AND GARDEN PLANTS
DEPARTMENT**

**LANDSCAPE AND ORNAMENTAL
PLANTS PROGRAM**

COURSE CURRICULUM

**PARK AND GARDEN PLANTS DEPARTMENT
LANDSCAPE AND ORNAMENTAL PLANTS COURSE CURRICULUM**

FIRST SEMESTER						
Course Code	Name of course	Type of course	T	P	Credit	ECTS
NUPS101	PLANT DESCRIPTION-I	C	3	0	3	4
NUOT103	BOTANIC	C	2	2	3	4
NUOT105	PLANT PHYSIOLOGY	C	3	0	3	4
NUOT107	SOIL SCIENCE	C	3	0	3	3
NUPS109	AGRICULTURAL ECOLOGY	C	2	2	3	4
NUPS111	COMPUTER-I	C	2	2	3	3
GME100	GENERAL AND PROFESSIONAL ETHIC*	CE	2	0	2	2
YDBI101	ENGLISH-I*	CE	2	0	2	2
TURK101	TURKISH LANGUAGE-I*	CE	2	0	2	2
TDP101	SOSIAL SENSITIVITY-I*	CE	1	0	1	1
GOS***	GENERAL OPTIONAL COURSES*	CE	1	1	0	1
TOTAL			23	7	25	30
GENERAL COMMON OPTIONAL COURSES						
GOS112	BASIC SPORTS ACTIVITIES	O	1	1	0	1
GOS118	HEALTHY LIFE AND SPORTS	O	1	1	0	1
GOS123	MUSIC	O	1	1	0	1
GOS124	TURKISH FOLK DANCES	O	1	1	0	1
* Courses Not Included in Term Course Responsibility						
C: Compulsory, CE: Common Essential, O: General Elective, T: Theoretical, P: Practical						

SECOND SEMESTER						
Course Code	Name of course	Type of course	T	P	Credit	ECTS
NUPS102	PLANT DESCRIPTION-II	C	2	2	3	3
NUPS104	LANDSCAPE APLICATIONS-I	C	2	2	3	3
NUPS108	GREENHOUSE AND INDOOR PLANTS	C	2	2	3	3
NUOT108	PLANT NUTRITION AND FERTILIZATION	C	2	2	3	3
NUPS112	COMPUTER-II	C	2	2	3	3
NUPS114	LANDSCAPE ECOLOGY	C	2	2	3	3
NUOT114	ENTERPRENEURSHIP CONCEPT	C	2	2	3	3
KRY100	CAREER PLANNING *	CE	0	2	1	1
YDBI102	ENGLISH-II*	CE	2	0	2	2
TURK102	TURKISH LANGUAGE -II*	CE	2	0	2	2
TDP102	SOSIAL SENSITIVITY -II*	CE	1	2	2	2
NUSD***	GENERAL OPTIONAL COURSES	CE	0	1	0	2
TOTAL			19	19	28	30
GENERAL OPTIONAL COURSES						
MUP100	PROFESSIONAL PRACTICE PROJECT	O	0	1	0	2
NUSD100	SUMMER INTERNSHIP	O	0	1	0	2
* Courses Not Included in Term Course Responsibility						

THIRD SEMESTER						
Course Code	Name of course	Type of course	T	P	Credit	ECTS
NUPS201	GROWING OF SEEDLING TECHNIQUES-I	C	2	2	3	4
NUPS203	GROWING OF ORNAMENTAL PLANTS	C	2	2	3	4
NUPS205	LANDSCAPE APPLICATIONS -II	C	2	2	3	4
NUOT207	AGRICULTURAL STRUCTURES AND IRRIGATION TECHNIQUES	C	2	2	3	3
NUTA209	PLANT PROTECTION	C	2	2	3	4
NUSD***	ELECTIVE COURSE-I	E	2	2	3	3
NUSD***	ELECTIVE COURSE -II	E	2	2	3	3
NUSD***	ELECTIVE COURSE -III	E	2	2	3	3
AIT201	ATATURK'S PRINCIPLES AND HISTORY OF TURKISH REVOLUTION -I*	CE	2	0	2	2
TOTAL			18	16	26	30
* Courses Not Included in Term Course Responsibility						

FOURTH SEMESTER						
Course Code	Name of course	Type of course	T	P	Credit	ECTS
NUPS202	GROWING OF SEEDLING TECHNIQUES -II	C	2	2	3	3
NUOT204	GREENHOUSE VEGETABLE GROWING	C	2	2	3	3
NUPS206	GROUND COVER PLANTS AND GRASS FIELD PLANT	C	2	2	3	4
NUPS208	LANDSCAPE REPAIR AND MAINTENANCE TECHNIQUE	C	2	2	3	4
NUPS210	LANDSCAPING IN RESIDENTIAL AREAS	C	2	2	3	4
NUPS212	DISEASES AND PESTS OF ORNAMENTAL PLANTS	C	3	0	3	4
NUSD***	ELECTIVE COURSE-I	E	2	2	3	3
NUSD***	ELECTIVE COURSE -II	E	2	2	3	3
NUSD***	ELECTIVE COURSE -III	E	2	2	3	3
AIT202	ATATURK'S PRINCIPLES AND HISTORY OF TURKISH REVOLUTION -II*	CE	2	0	2	2
TOTAL			19	14	26	30
* Courses Not Included in Term Course Responsibility						

NURDAGI VOCATIONAL SCHOOL ELECTIVE COURSES

Course Code	Name of course	Type of course	T	P	Credit	ECTS
NUSD201	PISTACHIO CULTIVATION	E	2	2	3	3
NUSD202	FIELD REGULATION	E	2	2	3	3
NUSD203	MAINTENANCE AND PRUNING TECHNIQUES	E	2	2	3	3
NUSD204	PLANT BREEDING	E	2	2	3	3
NUSD205	PLANT PESTS AND THEIR CONTROL	E	2	2	3	3
NUSD206	GRASSLAND AND FORAGE CROPS	E	2	2	3	3
NUSD207	ENVIRONMENT AND ORGANIC FARMING	E	2	2	3	3
NUSD208	SEEDLING GROWING TECHNIQUES	E	2	2	3	3
NUSD209	ROSE SEEDLING GROWING	E	2	2	3	3
NUSD210	BUSINESS ADMINISTRATION	E	2	2	3	3
NUSD211	ORGANIC MUSHROOM PRODUCTION	E	2	2	3	3
NUSD212	GREENHOUSE VEGETABLE GROWING	E	2	2	3	3
NUSD213	LANDSCAPE AND ORNAMENTAL PLANTS	E	2	2	3	3
NUSD214	COMPUTER APPLICATIONS IN LANDSCAPE	E	2	2	3	3
NUSD215	AGRICULTURAL ECONOMY	E	2	2	3	3
NUSD216	AGRICULTURAL TECHNOLOGIES	E	2	2	3	3
NUSD217	SOILLESS GROWING TECHNIQUES	E	2	2	3	3
NUSD218	OLIVE GROWING	E	2	2	3	3
NUSD219	QUALITY CONTROL	E	2	2	3	3
NUSD220	MEDICINAL AND AROMATIC PLANTS	E	2	2	3	3
NUSD221	PLANT PROTECTION	E	2	2	3	3
NUSD222	AGRICULTURAL MARKETING	E	2	2	3	3
NUSD223	SEEDLING GROWING	E	2	2	3	3
NUSD224	SEED TECHNOLOGIES	E	2	2	3	3
NUSD225	FINANCE MATHEMATICS	E	2	2	3	3
NUSD226	DYE PLANTS AND EVALUATION TECHNIQUES	E	2	2	3	3

(2nd Year Students Will Be Able to Choose 9 Credits and 9 ECTS Courses for the Fall-Spring Semesters)

LANDSCAPE AND ORNAMENTAL PLANTS GROWING PROGRAM COURSE CONTENTS

1st CLASS

FIRST SEMESTER

NUPS101 PLANT DESCRIPTION-I (3-0) 3 ECTS: 4

Flora, vegetation definitions, nomenclature of plants (family, genus, species, subspecies, variety, clone etc.). Explanation of classifications and ways of expression. Introduction of coniferous and broad-leaved trees and shrubs used outdoors, their dendrological characteristics and ecological requirements. Information about usage areas and possibilities of evaluation in landscaping applications.

NUOT103 BOTANIC (2-2) 3 ECTS: 4

Classification of botany science, cytology (cell science: protoplasm, cytoplasm, cell membrane, nucleus, chromosomes, cell division, etc.), histology (Tissue science: intercellular spaces, classification of tissues), organography (root, stem, leaf), plant systematics, reproduction in plants (asexual and sexual reproduction, structure of the flower, structure of the ovule, symmetry in flowers, flower formula and diagram, flower states, pollination, fertilization, fruit, fruit types), growth and development physiology.

NUOT105 PLANT PHYSIOLOGY (3-0) 3 ECTS: 4

Growth, vegetative and generative growth concepts, photosynthesis, respiration, water intake and transport mechanism, nutrient uptake and transport mechanism, internal and external factors affecting growth and development, dormancy (in seeds, buds and other organs), germination, sprouting and rooting, crown dominance, sterility and incompatibility, parthenocarpy and apomixis, flower and fruit drop, ripening, aging, growth movements, resistance to cold and drought.

NUOT107 SOIL SCIENCE (3-0) 3 ECTS: 3

Soil formation, classification of soils, soil colloids; structure and practical importance of soils, physical properties of soils, soil water, chemical properties of soils, soil reaction, alkaline and salt-affected soils and their management, soil organisms and ecology; soil organic matter, practical fertility management; phosphorus, potassium and micronutrient elements in the soil, chemical contamination in the soil.

NUPS109 AGRICULTURAL ECOLOGY (2-2) 3 ECTS: 4

Definition, development and scope of ecology, ecosystem and its elements, definition of plant ecology, relationships of plants with the environment, competition between plants, ecological conditions necessary for plant development, temperature, light, humidity, atmosphere, wind, water and its effects, soil factors, biological factors and their interactions with plants, environmental pollution.

NUPS111 COMPUTER-I (2-2) 3 ECTS: 3

Introduction to information technologies, computer hardware and computer networks, operating systems, internet applications.

GME100 GENERAL AND PROFESSIONAL ETHIC (2-0) 2 ECTS: 2

To provide information about the definition of the profession, the conditions for becoming a profession, ethics and legal situations. Revealing ethical and unethical behaviors.

YDBI101 ENGLISH-I (2-0) 2 ECTS: 2

Subject nouns, possessive nouns, introducing people, imperative sentences, numbers, ordinals, giving and asking for information about people and places, possessive "have got/has got", family relatives, date, days, months and time, "can/can" 't', adjectives, adverbs, abilities, present tense, present tense, routine activities, speaking about company departments, etc.

TURK101 TURKISH LANGUAGE-I (2-0) 2**ECTS: 2**

The nature of the Turkish language course, its introduction, purposes and evaluation method, its place and importance among other courses. Spoken language, written language and other forms, the birth of languages, their importance in human and social life, love and respect for language. The place of Turkish among the languages in the world, studies on Turkish, its characteristics and beauty. Historical development and periods of the Turkish Language, vocabulary of the developed language, word types and branches of a developed language.

TDP101 SOSIAL SENSITIVITY-I (1-0) 1**ECTS: 1**

To strengthen the relationship between the university and the society, to take courses and prepare projects to identify and solve the current problems of the society in order to raise students who are sensitive to social issues and aware of social responsibility.

GENERAL OPTIONAL COURSES**GOS112 BASIC SPORTIC ACTIVITIES (1-1) 0****ECTS: 1**

The relationship between physical fitness and physical activity, concepts related to physical fitness, being able to recognize the basic training methods used in the development of physical fitness.

GOS118 HEALTHY LIFE AND SPORTS (1-1) 0**ECTS: 1**

The relationship between physical fitness and physical activity, concepts related to physical fitness, the importance of physical fitness, the relationship between physical activity and health, being able to recognize the basic training methods used in the development of physical fitness.

GOS123 MUSIC (1-1) 0**ECTS: 1**

Teaching basic music concepts and gaining the ability to distinguish of different sounds.

GOS124 TURKISH FOLK DANCES (1-1) 0**ECTS: 1**

Theoretical gains on the historical development of Turkish folk dances.

SECOND SEMESTER**NUPS102 PLANT DESCRIPTION-II (2-2) 3****ECTS: 3**

Definition and introduction of annual and biannual garden flowers, information about their ecological demands and usage areas, information about perennial garden flowers, their definition, ecological requirements and usage areas.

NUPS104 LANDSCAPE APLICATIONS-I (2-2) 3**ECTS: 3**

Introduction to landscape technician, general information and job descriptions, taking responsibility, complying with work discipline, work. Reading landscape projects and preparing for application. Taking responsibility in applications and organizing the workflow. General evaluation and coordination of project and implementation stages. Use of materials, ability to apply what has been learned, environmental trips.

NUPS108 GREENHOUSE AND INDOOR PLANTS (2-2) 3**ECTS: 3**

Introduction of greenhouse ornamental plants, maintenance procedures, general environmental requirements, general information on propagation, usage areas, aesthetic properties.

NUOT108 PLANT NUTRITION AND FERTILIZATION (2-2) 3**ECTS: 3**

Elements required for plant nutrition, classification and properties of fertilizers, application of plant nutrients and uptake mechanisms of elements. Application times of fertilizers and factors affecting the uptake of nutrients.

NUPS112 COMPUTER-II (2-2) 3**ECTS: 3**

Microsoft Word, Microsoft Excel, Microsoft Power Point, Microsoft Outlook.

NUPS114 LANDSCAPE ECOLOGY (2-2) 3**ECTS: 3**

Students should be able to understand basic concepts such as ecology, landscape ecology, ecosystem, habitat, and ecological networks, to understand the content and study areas of landscape ecology, to understand the ecological factors that makeup; To learn the definition, importance, and functions of climatic, soil, relief and biotic factors in the landscape, within the scope of harmful ecological factors resulting from human impact and their pressure on the landscape: definitions of air, water, soil, radiation, light pollution, noise pollution, ecological importance and landscape elements. To provide information about their mutual relationships.

NUOT114 ENTREPRENEURSHIP CONCEPT (2-2) 3**ECTS: 3**

Entrepreneurship concept. Testing entrepreneurial characteristics. Business idea development and creativity exercises. Sharing experience. Business concept. Business functions: forms of organization. Business functions: types. Business functions: financial and legal responsibilities. Business plan concept: market research. Business plan concept and elements: marketing plan. Business plan concept and elements: production, management and financial plans. Workshops on business model and business plan. Business plan presentations.

KRY100 CAREER PLANNING (0-2)1**ECTS: 1**

Career concept, Career Planning, Relationship of Career Planning with vocational consultancy, Individual Career development, Resume preparation and resume types, Job interview, Career Planning process, Evaluation of Turkish Education System in line with Career Planning, Applicability of career counseling in schools, Lifelong career planning, Career Planning in Retirement

YDBI102 ENGLISH-II (2-0) 2**ECTS: 2**

Recent past and future tense. Similarities and differences between these tenses and other tenses, expression of actions requiring skill, use of ordinal and counting numbers. Being able to talk about dates, future plans and travel and shopping information, talking about people's careers, interests and habits, giving intentions, warnings, advice and directives.

TURK102 TURKISH LANGUAGE -II (2-0) 2**ECTS: 2**

Spelling and punctuation, ways of thinking, composition and types. Points to consider in written and oral composition, ways of expression, ways to develop ideas. Expression Dialects, expression disorders (mistakes), sentences, Turkish sentence mechanisms and types, sentences with missing elements, words, words and their properties in terms of meaning and function in Turkish language.

TDP102 SOCIAL SENSITIVITY -II (1-2)2**ECTS: 2**

To strengthen the relationship between the university and the society, to take courses and prepare projects to identify and solve the current problems of the society in order to raise students who are sensitive to social issues and aware of social responsibility.

GENERAL OPTIONAL COURSES**MUP100 PROFESSIONAL PRACTICE PROJECT (0-1)0****ECTS: 2**

To strengthen the relationship between the university and the society, to take courses and prepare projects to identify and solve the current problems of the society in order to raise students who are sensitive to social issues and aware of social responsibility.

NUST100 SUMMER INTERNSHIP (0-1)0**ECTS: 2**

It aims to increase the student's knowledge and skills through research by providing them with the ability to conduct research on a project related to their professional field.

2th CLASS

THIRD SEMESTER

NUPS201 GROWING OF SEEDLING TECHNIQUES-I (2-2)3 ECTS: 4

Site selection in open field nursery management, climate soil-water conditions, nursery establishment and operation plans, establishment stages and studies in nurseries, production and cultivation studies in nursery and greenhouse management, evaluation of nursery products.

NUPS203 GROWING OF ORNAMENTAL PLANTS (2-2)3

ECTS: 4

Introduction, propagation media, general principles of propagation, propagation media, tools and equipment, general principles of propagation, generative propagation, germination, factors affecting germination, vegetative propagation, propagation by cuttings, propagation by grafting, propagation by dipping. Other production techniques (rhizome, bulbs, tubers, tissue culture).

NUPS205 LANDSCAPE APPLICATIONS -II (2-2)3

ECTS: 4

Year-round work in green areas; sowing, planting, maintenance, production, tillage, weeding, ventilation, irrigation, fertilization, spraying, pruning, wound repair. preparation of the annual maintenance program, teamwork, and organization, use of materials, ability to apply what has been learned, and environmental trips.

NUOT207 AGRICULTURAL STRUCTURES AND IRRIGATION TECHNIQUES (2-2)3

ECTS: 3

Soil and water resources in Turkey, irrigability status, soil-water and plant relations, infiltration, plant water consumption, planning irrigation systems, planning of open channels, quality and classification of water, irrigation methods, drainage. Arrangement of courtyards and buildings in agricultural enterprises, environmental conditions for agricultural buildings, building elements and building materials in agricultural buildings, planning of agricultural buildings and facilities, animal shelters and greenhouses.

NUTA209 PLANT PROTECTION (2-2)3

ECTS: 4

Plant disease factors, diagnosis of plant diseases, control and protection methods, classification of weeds, biology, damage types and control techniques and drugs suitable for organic agriculture. Animal organisms that cause damage in plant production, their place in the system, their morphological structure, reproduction and development, life cycles, the types and symptoms of damage they cause to plants, the economic importance of pests, organic control methods and techniques against plant pests.

AIIT201 ATATURK'S PRINCIPLES AND HISTORY OF TURKISH REVOLUTION -I (2-0)2 ECTS: 2

Concepts and Ottoman Revolutions. European Developments. Industrial Revolution and French Constitutional Monarchy and Union and Progress. Constitutional Era Tripoli and the Balkan War. Causes of the First World War. World War I. Sharing of the Ottoman Empire. War of Independence Preparation Period. Congresses. The Last Ottoman Parliament and the National Pact. The Turkish Grand National Assembly Period and the Creation of Pockets. Treaty of Lausanne. Foreign policy.

FOURTH SEMESTER

NUPS202 GROWING OF SEEDLING TECHNIQUES -II (2-2)3

ECTS: 4

Propagation and cultivation techniques of trees and ornamental plants (generative and vegetative methods). Basic information on the cultivation of ornamental plants in production structures such as pillows, greenhouses and tunnels, selection of plant material in tree and shrub species used as ornamental plants, growing saplings by taking, rooting, potting or transplanting, and maintenance works that must be carried out until they are planted in their original places.

NUOT204 GREENHOUSE VEGETABLE GROWING (2-2)3**ECTS: 3**

Definition and importance of greenhouse cultivation. Greenhouse cultivation in the world and Turkey. Covering materials used. High, low and mini tunnels. Establishment of greenhouse enterprises, ecological and economic factors affecting greenhouse cultivation. Soil cultivation, soil disinfection, irrigation, fertilization, use of some growth regulators. Cultural procedures and annual maintenance operations that need to be carried out. Tunnel farming, establishing high plastic tunnels, establishing low plastic tunnels, establishing mini plastic tunnels.

NUPS206 GROUND COVER PLANTS AND GRASS FIELD PLANT (2-2) 3 ECTS: 4

Introduction of ground cover plants used in landscape applications, their ecological requirements and uses. Introduction of grass plants, their ecological requirements, aesthetic importance, stages of grass field establishment, maintenance of grass fields.

NUPS208 LANDSCAPE REPAIR AND MAINTENANCE TECHNIQUE (2-2)3 ECTS: 4

Basic technical information about year-round maintenance work and repair of damaged areas in areas where structural and vegetative applications have been completed.

NUPS210 LANDSCAPING IN RESIDENTIAL AREAS (2-2)3 ECTS: 4

Giving the characteristics of residential areas, which are indispensable elements of city life, landscape planning principles in residential and mass housing areas, basic elements and factors affecting planning.

NUPS212 DISEASES AND PESTS OF ORNAMENTAL PLANTS (3-0)3 ECTS: 4

The place of harmful insects and other animals in the systematics of ornamental plants, the introduction of the main diseases seen in ornamental plants indoors and outdoors and basic information about the methods of combating them, the pathogens and weeds in ornamental plants and their economic importance, plant diseases and the fight against weeds. Definition, survival and struggle of diseases seen in ornamental plants, weeds and their fights in ornamental plants, collection of diseased plant samples and weeds, making preparations, culturing and sending the samples.

AİİT202 ATATURK'S PRINCIPLES AND HISTORY OF TURKISH REVOLUTION -II (2-0)2 ECTS: 2

Political Revolutions: Abolition of the Sultanate, Proclamation of the Republic, Abolition of the Caliphate. Political Jokes and Political Events Established During Atatürk's Era and Represented in the Turkish Grand National Assembly. Legal Revolution and New Legal Order in the Republic Period. Revolutions in the Field of Education. Revolutionary Movements in the Cultural and Social Fields. Revolutions in the Economic Field. Atatürk Era Turkish Foreign Policy-I (1923-1930). Turkish Foreign Policy in the Atatürk Era-II (1930-1938). Atatürk's Principles: Basic and Integral Principles. Türkiye after Atatürk.

NUSD* ELECTIVE COURSESS****NUSD201 PISTACHIO CULTIVATION (2-2)3****ECTS: 3**

Information is given about the history of pistachio, its production status in our country and in the world, its systematics, morphological and biological characteristics, climate and soil requirements, cultivation and techniques, varieties, propagation and rootstocks, cultural processes, harvesting and usage methods.

NUSD202 FIELD REGULATION (2-2)3**ECTS: 3**

Three-dimensional shaping of the land in landscape planning studies, excavation-filling calculations, rough leveling of the land, fine leveling, preparation of the land for structural and vegetative application.

NUSD203 MAINTENANCE AND PRUNING TECHNIQUES (2-2)3**ECTS: 3**

Maintenance and repair of the green tissue around us within the scope of green areas, pruning times of trees, precautions to be taken for damaged saplings or trees.

NUSD204 PLANT BREEDING (2-2)3**ECTS: 3**

Breeding methods applied to self (introduction, selection and hybridization breeding), foreign (introduction, selection, hybridization and synthetic variety breeding) and all plants (mutation, polyploidy, single seed lineage methods), Resistance breeding (resistance to diseases and pests, lodging and grain resistance to shedding, resistance to winter, heat and drought).

NUSD205 PLANT PESTS AND THEIR CONTROL (2-2)3**ECTS: 3**

Integrated control methods applied against plant diseases.

NUSD206 GRASSLAND AND FORAGE CROPS (2-2)3**ECTS: 3**

Classification of grassland plants, pasture and forage plants, definition of meadow and pasture. Cultivation of legume forage crops. Cultivation of wheat forage crops. Cultivation of other family forage crops

NUSD207 ENVIRONMENT AND ORGANIC FARMING (2-2)3**ECTS: 3**

Agricultural practices and their environmental impact, sustainable agricultural practices, food security, biodiversity. Genetically modified organisms, risk management in agriculture, expectations from agriculture. Organic farming, principles and purpose, advantages of organic agriculture, need for organic production, organic farming practices in the world, international organizations. Organic farming, principles and purpose, advantages of organic farming, need for organic production, organic farming practices in the world, international organizations. Organic farming practices.

NUSD208 SEEDLING GROWING TECHNIQUES (2-2)3**ECTS: 3**

The purpose and importance of seedling cultivation, the general situation of the seedling sector in our country, the importance of seeds in seedling cultivation, the environments used in seedling cultivation and their characteristics, the use of grafted seedlings in vegetable growing, the use of grafted seedlings in vegetable growing, modern seedling production facilities, the status of nursery farming in our country, the problems of seedling producers, the introduction of seedling production techniques, the purpose of working in nursery management and the determination of the type. Issues and cultivation techniques that need to be taken into consideration when establishing a nursery.

NUSD209 ROSE SEEDLING GROWING TECHNIQUES (2-2)3**ECTS: 3**

The importance of growing rose seedlings and the cultivation technique in detail.

NUSD210 BUSINESS ADMINISTRATION (2-2)3**ECTS: 3**

Basic concepts, objectives of businesses; relations between the enterprise and its environment, Classification of enterprises; Legal forms of businesses; Establishment studies of enterprises (feasibility report, selection of establishment place, location, organized industrial zones); Size of businesses, growth patterns, business capacity; Functions of the business (management and organization, production, marketing, financing, accounting, human resources, public relations, research and development).

NUSD211 ORGANIC MUSHROOM PRODUCTION (2-2)3**ECTS: 3**

Characteristics of Mushrooms and Their Place in Botany. White Cap Mushroom (*Agaricus Bisporus*) Production. The Importance of Mushroom Production in the Economy. Compost Preparation and Mycelial Planting. Pasteurization of Compost. Some Compost Formulas, Some Problems Encountered While Preparing Compost. Important Fungal Diseases. Important Fungal Pests. Physiological Disorders. Beech Mushroom (*Pleurotus Spp.*) Production. Organic Mushroom Production. Mushroom Mycelia Production. Mycelial Grafting and Inoculation Procedures. Preservation of Micelles.

NUSD212 GREENHOUSE VEGETABLE GROWING (2-2)3**ECTS: 3**

History of greenhouse cultivation, place and importance of greenhouse cultivation in agriculture, cover types used in crop production, classification of greenhouses, factors affecting the selection of greenhouse location, basic principles of greenhouse planning, greenhouse building materials and building elements, greenhouse air conditioning regulation,

preparation of greenhouse soil, irrigation and drainage systems in greenhouse plants. , Soilless culture systems, Greenhouse and open field production planning, greenhouse vegetable cultivation of some important vegetable species.

NUSD213 LANDSCAPE AND ORNAMENTAL PLANTS (2-2)3 ECTS: 3

The importance of ornamental plants, important ornamental plants, general care rules for ornamental plants, production technique of ornamental plants, organic landscaping, organic landscaping in the production of ornamental plants.

NUSD214 COMPUTER APPLICATIONS IN LANDSCAPE (2-2)3 ECTS: 3

Making landscape design using computers. To teach 2D drawings and designs using a CAD program in a computer environment.

NUSD215 AGRICULTURAL ECONOMY (2-2)3 ECTS: 3

To be able to comprehend the principles of production theory, to be able to transfer the knowledge gained from production theory into practice and to interpret the results, to be able to evaluate factor-product, factor-factor and product-product relationships from an economic perspective, to be able to choose between alternative factor (input) and product combinations, to guide operators in the effective use of resources. Being able to interpret the effects of technical and economic conditions in terms of factor use and product selection, Being able to interpret the effects of changes in business scale and production techniques in terms of businesses, sector and country economy.

NUSD216 AGRICULTURAL TECHNOLOGIES (2-2) 3 ECTS: 3

Agricultural technologies, energy sources, agricultural tractors (features, operation and maintenance rules), soil tillage, seedbed preparation, sowing-planting, fertilization, agricultural spraying and maintenance machinery, irrigation equipment, post-harvest processing machinery, occupational safety.

NUSD217 SOILLESS FARMING (2-2) 3 ECTS: 3

Providing basic information on soilless agriculture practices developed to eliminate problems arising from soil in the cultivation of garden plants and to obtain higher quality and higher yields under controlled conditions.

NUSD218 OLIVE CULTIVATION (2-2) 3 ECTS: 3

History of olive, production status in our country and worldwide, taxonomy, morphological and biological characteristics, climatic and soil requirements, cultivation techniques, varieties, propagation and rootstocks, cultural practices, harvest, and utilization methods.

NUSD219 QUALITY CONTROL (2-2) 3 ECTS: 3

Development process of standardization, definition of standardization, purpose of standards, Definition of quality, Quality concepts, Quality approaches, Quality Assurance Management Systems, Total Quality Management, Professional standards.

NUSD220 MEDICINAL AND AROMATIC PLANTS (2-2) 3 ECTS: 3

Historical development and importance of medicinal and aromatic plants, their classification, cultivation and basic principles, ecology, drying and storage of medicinal and aromatic plants, utilization of medicinal and aromatic plants.

NUSD221 PLANT PROTECTION (2-2) 3 ECTS: 3

Plant disease agents, diagnosis of plant diseases, control and prevention methods, classification of weeds, their biology, damage types, and organic farming suitable control techniques and drugs. Animal organisms causing damage in plant production, their systematic positions, morphological structures, reproduction and development, life cycles, damage types and symptoms caused in plants, economic importance of pests, organic control methods and techniques against plant pests.

NUSD222 AGRICULTURAL MARKETING (2-2) 3 ECTS: 3

Definition, scope, functions of marketing, marketing channels and characteristics, types of markets and price formation, marketing and consumption structure for organic agricultural products in Turkey, marketing of organic products and legal regulations regarding foreign trade.

NUSD223 SEEDLING AND SAPLING CULTIVATION (2-2) 3 ECTS: 3

Purpose and importance of seedling and sapling cultivation, environments and characteristics of seedling and sapling cultivation, importance of seed quality in seedling and sapling cultivation, seedling and sapling cultivation technique, major grafts and their making, care of seedlings and saplings (temperature, irrigation, fertilization, spraying), concept of ready seedlings and saplings, modern production facilities, certification.

NUSD224 SEED TECHNOLOGIES (2-2) 3 ECTS: 3

Concept of seed, seed production and supply in our country, foreign and self-pollination, heterozygous and homozygous seeds, sources of pollen contamination, isolation, plant species produced by seed, seed production, factors affecting production, physical and biological properties sought in seeds, factors affecting and accelerating germination, harvesting, separation, packaging, labeling, preservation of seeds, seed classes, certification systems, concept and production of F1 hybrid seeds.

NUSD225 FINANCIAL MATHEMATICS (3-0) 3 ECTS: 3

Ratio and proportion, measurements, percentage calculations, cost and profit calculations, interest, discount, and amortization calculations.

NUSD226 PLANT DYES AND EVALUATION TECHNIQUES (2-2) 3 ECTS: 3

Introduction to plant dyeing from botanical dyeing history. Plant dyeing methods; Mordant dyeing method, Direct dyeing method. Tube dyeing method. Color pigments found in plants and used in dyeing. Definition of mordant, major mordants. Plants used in plant dyeing and their systematics. Botanical properties and cultivation techniques of plants used in plant dyeing.