

Akdeniz University 2021-2022 Spring Semester List of Courses

Course Code	ECTS	Course Title	Content	Faculty	Department	Lecturer (s)	Online Availability
TMB5052	6	HYDROPONIC GREENHOUSE TECHNOLOGIES	<p>1. General State of general greenhouse production around the world, vegetables produce, market evaluation, trends,</p> <p>2. Greenhouse Environment Effect of temperature, CO₂, light and all other climate and environmental parameters in detail on the yield and productivity of crops grown in greenhouses. Classification of greenhouses according to the control levels of these variables.</p> <p>2. Greenhouse Structures Greenhouse(plastic, glass) structural elements, steel, aluminum, load characteristics, design data, specs, orientation, considerations before investments,</p> <p>3. Greenhouse heating Surface area calculation, Heat requirement calculation, heating system design, Hot water heating, hot air heating, solar heating and other alternative heating methods, boilers, buffer tank and working principles, zoning,</p> <p>4. Greenhouse Cooling Heat load calculation, active cooling, passive cooling, alternative cooling methods, use of psychrometric chart, high/low pressure fog systems,</p> <p>5. Greenhouse Irrigation Irrigation system capacity calculation, lines, drippers, water tanks, pump capacities, valving, dosaging unit principles, automation principles, light-dependent irrigation, NFT and Aeroponics, applications, trends.</p> <p>6. Thermal and shading screens Affect on heating and cooling, how to calculate energy savings, types of textiles and mechanisms used, planning, zoning, elements of the system,</p> <p>7.CO₂ dosaging system CO₂ tank and principles, CO₂ line design, dosaging principles, management of crop through CO₂.</p> <p>8. Artificial Lighting Use of artificial lights to increase yield, calculation principles, LED lights and their use, indoor farming,</p> <p>9. Crop care and harvest technologies Battery carts, sprayers, packing lines and all other related post harvest technologies</p> <p>10. Cold storage design The size and capacities of cold storages, necessary materials and equipments</p> <p>11. Greenhouse materials All materials and machinery used during and after the production in greenhouses.</p>	Faculty of Agriculture	Agricultural Machinery and Technology Engineering	Prof. Dr. Ahmet KÜRKLÜ	Online

TMB5054	6	UNIVERSAL PRINCIPLES OF DESIGN	<p>A deeper understanding of human behaviour and a scholarly approach to design are the main focus of this course.</p> <p>A designer interested in learning about other areas of specialization would have to study texts from many different design disciplines. Determining which texts in each discipline</p>	Faculty of Agriculture	Agricultural Machinery and Technology Engineering	Doç. Dr. H.Kürşat ÇELİK	Online
TMB5051	6	COMPUTER AIDED DESIGN	<p>Computer-aided design (CAD) is the use of computers to aid in the creation, modification, analysis, or optimization of a design. CAD software is used to increase the productivity of the designer, improve the quality of design, improve</p>	Faculty of Agriculture	Agricultural Machinery and Technology Engineering	Doç. Dr. H.Kürşat ÇELİK	Online
TMB5053	6	ESSAY WRITING AND GRAMMAR	<ol style="list-style-type: none"> 1. Basic conventions of academic writing 2. Basic grammatical concepts 3. Putting sentences together 4. Putting paragraphs together 5. Critical thinking and referencing 	Faculty of Agriculture	Agricultural Machinery and Technology Engineering	Doç. Dr. H.Kürşat ÇELİK	Online