

COURSE LIST

Institute of Natural and Applied Sciences

Field : Preparation in Fisheries

Course Title	Code	ECTS Credit	COMU Credit	Lecturer
Microalgal Biotechnology	ULP-21-SY001	7.5	4	Assoc.Prof. Dr. Tolga Göksan
Marine Aquarium Systems	ULP-21-SY002	7.5	4	Assist. Prof. Dr. İhsan Çelik
Ornamental Fish Hatchery Planning	ULP-21-SY003	7.5	4	Assist. Prof. Dr. İhsan Çelik
Cage Farming & Technology	ULP-21-SY004	7.5	4	Assoc.Prof. Dr. Murat Yiğit
Trout & Salmon Culture	ULP-21-SY005	7.5	4	Assoc.Prof. Dr. Murat Yiğit
Physiology of Macroalgae Cultures	ULP-21-SY006	7.5	4	Assist. Prof. Dr. İlknur Ak
Feeding Management in Aquaculture	ULP-21-SY007	7.5	4	Assoc.Prof. Dr. Murat Yiğit
Alternative Species in Freshwater Aquaculture	ULP-21-SY008	7.5	4	Assoc.Prof. Dr. Sabahattin Ergün
Fish Feed and Technology	ULP-21-SY009	7.5	4	Assoc.Prof. Dr. Sabahattin Ergün
Analysis Methods of Fish and Feeds	ULP-21-SY010	7.5	4	Assoc.Prof. Dr. Sabahattin Ergün
Aquarium Fish Biology and Propagation	ULP-21-SY011	7.5	3	Assoc.Prof. Dr. Umur Önal
Alternative Species for Marine Aquaculture	ULP-21-SY012	7.5	4	Assoc.Prof. Dr. Sabahattin Ergün

Live Food Production	ULP-21-SY013	7.5	4	Assoc.Prof. Dr. Tolga Göksan
Recirculating Aquaculture Systems and Management	ULP-21-SY014	7.5	3	Assoc.Prof. Dr. Umur Önal
Bio-fuel Production From Microalgae	ULP-21-SY015	7.5	4	Assoc.Prof. Dr. Tolga Göksan
Digestion Physiology & Metabolism	ULP-21-SY016	7.5	4	Assoc.Prof. Dr. Murat Yiğit
Feed Additives & Effects	ULP-21-SY017	7.5	4	Assoc.Prof. Dr. Sabahattin Ergün
Hatchery Management	ULP-21-SY018	7.5	4	Assoc.Prof. Dr. Umur Önal
Public Aquarium Management	ULP-21-SY019	7.5	4	Assist. Prof. Dr. İhsan Çelik
Special Diets in Aquaculture	ULP-21-SY020	7.5	4	Assoc.Prof. Dr. Sabahattin Ergün
Spawning & Egg – Larvae Quality	ULP-21-SY021	7.5	4	Assoc.Prof. Dr. Sabahattin Ergün
Nutritional Biochemistry	ULP-21-SY022	7.5	4	Prof. Dr. Olcay Hisar
Flatsfish Culture	ULP-21-SY023	7.5	4	Assoc.Prof. Dr. Murat Yiğit
Aquaculture Politics	ULP-21-SY024	7.5	3	Assoc.Prof. Dr. Murat Yiğit
Photobioreactors and Criteria for Design	ULP-21-SY025	7.5	4	Assoc.Prof. Dr. Tolga Göksan
Physiology of Algal Mass Culture	ULP-21-SY026	7.5	4	Assoc.Prof. Dr. Tolga Göksan
Sturgeon Culture	ULP-21-SY027	7.5	4	Assoc.Prof. Dr. Sabahattin Ergün
Seaweed	ULP-21-	7.5	4	Assist. Prof.

Culture in Integrated Aquaculture Systems	SY028			Dr. İlknur Ak
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Course Code	ULP – 21-SY001
Name of the Course in English	Microalgal Biotechnology
Name of the Course in Turkish	Mikroalg.Biyoteknoloji
Language of the Course	English
Level of the Course	Master
Lecturer	Doç. Dr. Tolga GÖKSAN
ECTS Credit	7,5
COMU Credit	4
Description	Microalgae cultivated for commercial purpose, their metabolites and fine chemicals, application fields.

Course Code	ULP –21-SY002
Name of the Course in English	Marine Aquarium Systems
Name of the Course in Turkish	Deniz Akvaryum Sistemleri
Language of the Course	English

Level of the Course	Master
Lecturer	Yrd.Doç.Dr. İhsan ÇELİK
ECTS Credit	7,5
COMU Credit	4
Description	In this course topics such as important water quality parameters and their long-term management in marine aquariums, filtration equipments, principles of biological filtration, and culture methods of some fish will be discussed.

Course Code	ULP – 21-SY003
Name of the Course in English	Ornamental Fish Hatchery Planning
Name of the Course in Turkish	Süs Balıkları Tesis Planlama
Language of the Course	English
Level of the Course	Master
Lecturer	Yrd.Doç.Dr. İhsan ÇELİK
ECTS Credit	7,5
COMU Credit	4
Description	Planning of freshwater aquarium fish hatcheries, planning of propagation and nursing systems, aquarium and tank designs, cost calculations.

Course Code	ULP – 21-SY004
Name of the Course in English	CageFarming&Technology
Name of the Course in Turkish	<i>Kafes Balıkçılığı ve Teknolojisi</i>
Language of the Course	English
Level of the Course	Master
Lecturer	Doç. Dr. Murat YİĞİT
ECTS Credit	7,5
COMU Credit	4
Description	Cage types, construction, site selection, advantages and disadvantages of fish farming in sea-based cages.

Course Code	ULP – 21-SY005
Name of the Course in English	Trout & Salmon Culture
Name of the Course in Turkish	<i>Alabalık ve Salmon Yetiştiriciliği</i>
Language of the Course	English
Level of the Course	Master
Lecturer	Doç. Dr. Murat YİĞİT
ECTS Credit	7,5
COMU Credit	4
Description	Methods in trout and salmon culture, adaptation, environmental features,

	tolaration to physico-chemical parameters
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Course Code	ULP – 21-SY006
Name of the Course in English	Physiology of MacroalgaeCultures
Name of the Course in Turkish	Makroalg Kùltürlerinin Fizyolojisi
Language of the Course	English
Level of the Course	Master
Lecturer	Yrd.Doç.Dr. İlknur AK
ECTS Credit	7,5
COMU Credit	4
Description	Effects of phsicial and chemical parameters on macroalgae culture and methods for optimization of culture.

Course Code	ULP – 21-SY007
Name of the Course in English	Feeding Management in Aquaculture
Name of the Course in Turkish	Su Ürünleri Yetiştiriciliğinde Yemleme Yöntemi
Language of the Course	English
Level of the Course	Master
Lecturer	Doç. Dr. Murat YİĞİT
ECTS Credit	7,5
COMU Credit	4

Description	Feed types used in intensive aquaculture, relation between temperature, water quality and feeding. Evaluation of growth performance with reference to feeding.
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Course Code	ULP – 21-SY008
Name of the Course in English	Alternative Species in Freshwater Aquaculture:
Name of the Course in Turkish	İçsu Balıkları Yetiştiriciliğinde Alternatif Türler
Language of the Course	English
Level of the Course	Master
Lecturer	Doç.Dr. Sebahattin ERGÜN
ECTS Credit	7,5
COMU Credit	4
Description	Alternative fish species such as sturgeon, eel, tilapia, catfish, etc. and their culture conditions.

Course Code	ULP – 21-SY009
Name of the Course in English	Fish Feed and Technology
Name of the Course in Turkish	Balık Yemleri ve Teknolojisi
Language of the Course	English

Level of the Course	Master
Lecturer	Doç.Dr. Sebahattin ERGÜN
ECTS Credit	7,5
COMU Credit	4
Description	Feed ingredients, formulation, studies concerning pelet technology, detailed evaluation of practical diets.

Course Code	ULP – 21-SY010
Name of the Course in English	Analysis Methods of Fish and Feeds
Name of the Course in Turkish	Yem ve Balık Analiz Metotları
Language of the Course	English
Level of the Course	Master
Lecturer	Doç.Dr. Sebahattin ERGÜN
ECTS Credit	7,5
COMU Credit	4
Description	Proximate composition of feeds and fish body and tissues.

Course Code	ULP – 21-SY011
Name of the Course in English	Aquarium Fish Biology and Propagation
Name of the Course in Turkish	Akvaryum Balıkları Biyolojisi ve Üretim Tekniği

Language of the Course	English
Level of the Course	Master
Lecturer	Yrd.Doç.Dr. Umur ÖNAL
ECTS Credit	7,5
COMU Credit	3
Description	Propagation of aquarium fishes as well as digestive biology and species specific characteristics of environmental needs, applied studies...

Course Code	ULP – 21-SY012
Name of the Course in English	Alternative Species for Marine Aquaculture
Name of the Course in Turkish	Deniz Balıkları Yetiştiriciliğinde Alternatif Türler
Language of the Course	English
Level of the Course	Master
Lecturer	Doç. Dr. Sebahattin ERGÜN
ECTS Credit	7,5
COMU Credit	4
Description	Adaptation to culture conditions, hatching possibilities, characteristics of culture environment and their effects on aquaculture operations of alternative marine fish species.

Course Code	ULP – 21-SY013
Name of the Course in English	Live Food Production

Name of the Course in Turkish	Canlı Yem Üretimi
Language of the Course	English
Level of the Course	Master
Lecturer	Doç.Dr. Tolga GÖKSAN
ECTS Credit	7,5
COMU Credit	4
Description	Phyto-zooplankton culture, an important food source for the marine aquaculture activities.

Course Code	ULP – 21-SY014
Name of the Course in English	Recirculating Aquaculture Systems and Management
Name of the Course in Turkish	Akuakültürde Kapalı Devre Sistemler ve Yönetimi
Language of the Course	English
Level of the Course	Master
Lecturer	Yrd. Doç. Dr. Umur ÖNAL
ECTS Credit	7,5
COMU Credit	3
Description	Recirculating aquaculture systems, types and features of filtration used, important water parameters, species specific

optimum range of water parameters for best growth. Biofiltration, gass transfer, ozone, ultraviolet (UV) and denitrification systems. Modelling of systems for specific species and biomass.

Course Code	ULP – 21-SY015
Name of the Course in English	Bio-fuel Production from Microalgae
Name of the Course in Turkish	Mikroalglerden Biyo-yakıt Üretimi
Language of the Course	English
Level of the Course	Master
Lecturer	Doç.Dr. Tolga GÖKSAN
ECTS Credit	7,5
COMU Credit	4
Description	Microalgal species used to produce bio-fuels; bio-diesel, bio-hydrogen and bio-ethanol production; stress physiology of microalgae and the improvement of bio-oil production; description of the cultivation systems used in the bio-fuel production from microalgae.

Course Code	ULP-21-SY016
Name of the Course in English	Digestion Physiology & Metabolism
Name of the Course in Turkish	Sindirim Fizyolojisi ve Metabolizması
Language of the Course	English
Level of the Course	Doctorate
Lecturer	Doç. Dr. Murat YİĞİT
ECTS Credit	7,5
COMU Credit	4

Description	Digestion physiology and metabolism in fish in detail, with respect to nutritional inputs and outputs.
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Course Code	ULP-21-SY017
Name of the Course in English	Feed Additives & Effects
Name of the Course in Turkish	Balık Yemlerinde Kullanılan Katkı Maddeleri ve Etkileri
Language of the Course	English
Level of the Course	Doctorate
Lecturer	Doç. Dr. Sebahattin ERGÜN
ECTS Credit	7,5
COMU Credit	4
Description	The importance of additional nutritional compounds, vitamins, minerals, antibiotics, probiotics, binders, etc.

Course Code	ULP-21-SY018
Name of the Course in English	Hatchery Management
Name of the Course in Turkish	Kuluçkahane Yönetimi
Language of the Course	English
Level of the Course	Doctorate
Lecturer	Yrd. Doç. Dr. Umur ÖNAL
ECTS Credit	7,5
COMU Credit	4
Description	Materials and equipments used in hatchery facilities, Hatchery types, necessary measures for an healthy and successful reproduction, necessary measures to improve hatchery succes.

Course Code	ULP-21-SY019
Name of the Course in English	Public Aquarium Management
Name of the Course in Turkish	Şehir Akvaryumları Yönetimi
Language of the Course	English
Level of the Course	Doctorate
Lecturer	Yrd. Doç. Dr. İhsan ÇELİK
ECTS Credit	7,5
COMU Credit	4
Description	Identification of the public aquariums, design, decoration, water quality management, filtration systems, maintenance of aquatic animals and aquatic ecosystems will be studied.

Course Code	ULP-21-SY020
Name of the Course in English	Special diets in Aquaculture
Name of the Course in Turkish	Balık Yetiştiriciliğinde Özel Yemler
Language of the Course	English
Level of the Course	Doctorate
Lecturer	Prof. Dr. A.Adem TEKİNAY
ECTS Credit	7,5
COMU Credit	4
Description	Broodstock diets, special diets prior the parr stage. Diets with drug additives and pigments.

Course Code	ULP-21-SY021
Name of the Course in English	Spawning & Egg-Larvae Quality
Name of the Course in Turkish	Döl Alımı ve Yumurta-Larva Kalitesi
Language of the Course	English
Level of the Course	Doctorate
Lecturer	Doç. Dr. Sebahattin ERGÜN
ECTS Credit	7,5
COMU Credit	4
Description	Difficulties in egg, larvae, and juvenile production are among the main problems and factors affecting sustainable fish culture. Breeding, egg-larvae quality, and factors affecting the quality.

Course Code	ULP-21-SY022
Name of the Course in English	Nutritional Biochemistry
Name of the Course in Turkish	Balık Besleme Biyokimyası
Language of the Course	English
Level of the Course	Doctorate
Lecturer	Prof. Dr. Olcay HİSAR
ECTS Credit	7,5
COMU Credit	4
Description	Digestive process from feed consumption through excretion, the role of liver in the use of amino acid, lipid, and carbohydrates.

Course Code	ULP-21-SY023
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Name of the Course in English	Flatfish Culture
Name of the Course in Turkish	Yassı Balık Yetiştiriciliği
Language of the Course	English
Level of the Course	Doctorate
Lecturer	Doç. Dr. Murat YİĞİT
ECTS Credit	7,5
COMU Credit	4
Description	Aspects in flatfish culture, growth parameters under optimum conditions, nutritional requirements of flatfish species, adaptation to culture conditions of some species, tolerance to environmental and physico-chemical conditions, recent developments in this field.

Course Code	ULP-21-SY024
Name of the Course in English	Aquaculture Politics
Name of the Course in Turkish	Su Ürünleri Yetiştiriciliği Politikaları
Language of the Course	English
Level of the Course	Doctorate
Lecturer	Doç. Dr. Murat YİĞİT
ECTS Credit	7,5
COMU Credit	3
Description	Present state of aquaculture, problems, solutions, aquaculture potential in Turkey, Regulations regarding aquaculture activities, international agreements and expectation for the future.

Course Code	ULP-21-SY025
Name of the Course in English	Photobioreactors and Criteria for Design
Name of the Course in Turkish	Fotobiyoreaktörler ve Tasarım Kriterleri
Language of the Course	English
Level of the Course	Doctorate
Lecturer	Doç. Dr. Tolga GÖKSAN
ECTS Credit	7,5
COMU Credit	4
Description	<p>Photobioreactors and their designs are one of the most important factors in microalgae cultivation. Economy is the most important criterion for a plant requiring microalgae. Economy is just possible by the determination of the species-specific culture conditions, and by the achievement of the maximal production per unit area. Photobioreactors have got advantages and disadvantages with respect to the operational principles and cultured species. Accordingly, the selection of the photobioreactor suitable for the desired product is highly important.</p>

Course Code	ULP-21-SY026
Name of the Course in English	Physiology of Algal Mass Culture
Name of the Course in Turkish	Yığın Alg Kültürlerinin Fizyolojisi
Language of the Course	English
Level of the Course	Doctorate
Lecturer	Doç. Dr. Tolga GÖKSAN
ECTS Credit	7,5

COMU Credit	4
Description	Inovative technologies and strategies to produce higher amounts of biomass, optimising the culture parameters such as O2, CO2, pH, light and temperature, and photosynthesis.

Course Code	ULP-21-SY027
Name of the Course in English	Sturgeon Culture
Name of the Course in Turkish	Mersin Balıkları ve Yetiştiriciliği
Language of the Course	English
Level of the Course	Doctorate
Lecturer	Doç. Dr. Sebahattin ERGÜN
ECTS Credit	7,5
COMU Credit	4
Description	Local and world-wide sturgeon species with potential for aquaculture within the family Acipenseridae, their morphology, biology and importance, species under threat, culture methods and caviar production.

Course Code	ULP-21-SY028
Name of the Course in English	Seaweed Culture in Integrated Aquaculture Systems
Name of the Course in Turkish	Entegre Kültür Sistemlerinde Makro Alg Yetiştiriciliği
Language of the Course	English
Level of the Course	Doctorate
Lecturer	Yrd. Doç. Dr. İlknur AK
ECTS Credit	7,5

COMU Credit	4
Description	In this course, seaweeds which are economically important, culture techniques in fish, shellfish, and mollusks rearing plants will be explained. Purposes of establishment of integrated culture systems and their utilities will be described and studied on culture modelling systems.