

## Curriculum for the Degree of M.Sc. in Fisheries

To obtain a M.Sc. degree, students must take at least 32 credits during four terms of study:

### *Aquaculture:*

COURSE CODE	COURSE TITLE	CREDITS
<b>Semester I (fall)</b>		
3712701	Supplementary Fish Aquaculture	2+1
3712703	Live feed Production	1+1
3712704	Hygiene Management in Aquaculture	2
3712709	Aquatic Nutrition & Feeding	1+1
3716511	Research Methods	2
3712710	Application of Computers in Fisheries	1
<b>Semester II (spring)</b>		
3712702	Supplementary Aquaculture	2+1
3712705	Aquaculture Management	2
3712706	Advanced Hydrobiology	2+1
3712707	Genetics & Biotechnology of Aquatic Animals	2+1
3712708	Fish physiology	2+1
3712901	Seminar	1
<b>Semester III (fall)</b>		
9010606	Thesis	6
<b>Semester IV (spring)</b>		
9010606	Continue of thesis	-

### *Aquatic Ecology & Fisheries:*

<b>Semester I (fall)</b>		
3712810	Physiology & Behavior of Aquatic Animals	2+1
3712820	Fish Ecology	2+1
3712840	Benthic Ecology	1+1
3712845	Evaluation & Conservation of Iran Aquatic Ecosystems	2
+	Elective Courses*	2
<b>Semester II (spring)</b>		
3716511	Research Methods	2
3712835	Plankton Ecology	1+1
3712830	Aquatic Stock Assessment	2+1
3712825	Advanced Limnology	2+1
3712901	Seminar	1
+	Elective Courses*	3
<b>Semester III (fall)</b>		
9010606	Thesis	6
<b>Semester IV (spring)</b>		
9010606	Continue of thesis	-
<b>*Elective Courses</b>		
3716526	Advanced statistics	2+1
3712855	Aquatic Ecology	2+1
3712865	Fish Phylogeny	2
3712850	Molecular Ecology	2
3712860	Remote Sensing & its applications in Fisheries	1+1

## Curriculum for the Degree of M.Sc. in Environmental Sciences and Environmental Pollution:

The Master of Science Programs in Environmental Sciences and Environmental Pollution are multi-disciplinary integrated programmes. They aim to provide graduate-level education in Environmental Sciences and Environmental Pollution for senior and mid-level managers and professionals.

### Course requirements for the graduate programs:

Core courses for both programs	11 Credits
Core courses for each programs	9 Cr.
Elective courses	5 Cr.
Thesis	6 Cr.
Seminar	1 Cr.
Total	32 Cr.

## 1- Curriculum for the Degree of M.Sc. in Environmental Sciences

COURSE CODE	COURSE TITLE	UNITS
<b>Semester I (fall)</b>		
3716532	Advanced Remote Sensing	1+1
3714614	Land use Planning	2
3714602	Complementary wildlife ecology	3
3716511	Research methodology	2
3714601	Industrial pollution	2+1
<b>Semester II (spring)</b>		
3714615	Advanced Geographic Information Systems	2
3714604	Wetland management and migratory birds	3
3714605	Environmental Impacts Assessments	2
3714603	Solid Wastes and Recycling	2
3714901	Seminar	1
<b>Semester III (fall)</b>		
9010606	Thesis	6
<b>Semester IV (spring)</b>		
9010606	Continue of Thesis	-

## 2. Curriculum for the Degree of M.Sc. in Environmental Pollution

COURSE CODE	COURSE TITLE	UNITS
<b>Semester I (fall)</b>		
3716511	Research methodology	2
3714601	Industrial pollution	2+1
3714611	Pollutants Chemistry	2
2118590	Chemical analysis methods of environmental samples	3
3714612	Marine pollution	2
<b>Semester II (spring)</b>		

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3714615	Advanced Geographic Information Systems	2
3714603	Solid Wastes and Recycling	2
3716526	Advanced Statistical Methods	3
2118595	Sample Preparation Methods and Chromatography	3
3714613	Advanced Environmental Pollution	2
3714901	Seminar	1
<b>Semester III (fall)</b>		
9010606	Thesis	6
<b>Semester IV (spring)</b>		
9010606	Continue of Thesis	-

### Curriculum for the Degree of M.Sc. in Range Management & Combating Desertification:

#### 1- Curriculum for the Degree of M.Sc. in Range Management

COURSE CODE	COURSE TITLE	CREDITS
<b>Semester I (fall)</b>		
3716517	Analysis of Rangeland Ecosystems	3
3716514	Phytosociology	2
3716511	Research Method	2
3716530	Soil, Water and Plant Interactions	2
3716531	Plant Ecophysiology	2
3716513	Rangeland Hydrology	2
<b>Semester II (spring)</b>		
3716534	Industrial, Medicinal & Poisonous Plants	2
3716901	Range Management Seminar	1
3716529	Arid & Mountainous Regions Reclamation	2
3716515	Analysis of Range Assessment and Monitoring Methods	2
3716526	Advanced Analytical methods	2
3716516	Economical and Social Aspects of Watershed Basins	2
<b>Semester III (fall)</b>		
	Thesis	6
<b>Semester IV (spring)</b>		
	Continue of Thesis	-
<b>Other Optional Courses</b>		
3716513	Seed Technology of Rangeland Plant Species	2
3716655	Geographic Information Systems	2
3716533	Fundamental to Plant Breeding	2
3716503	Quaternary Formations	2
3716535	Land Use Planning	2
3716540	An Introduction to Modeling in Rangeland Ecosystems	2

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### 2-Curriculum for the Degree of M.Sc. in Combating Desertification

COURSE CODE	COURSE TITLE	CREDITS
<b>Semester I (Fall)</b>		
3716538	Desertification and Control Methods	2
3716519	Advanced Remote Sensing	2
3716502	Arid land hydrology	2
3716505	Rehabilitation Methods and Planted Vegetation Management	2
3716508	The Economic and Social Development in Desert Areas	2
3716511	Research Method	2
3716506	Arid Land Ecosystems	2
<b>SemesterII (Spring)</b>		
3716539	Wind Erosion and Control Methods	2
3716503	Quaternary Formations	2
3716537	Water Resources Management	2
3716527	Medicinal and Industrial Plants	2
3716509	Arid land Climatology	2
3716507	Ecophysiology of Arid Land Plants	2
3716901	Seminar	1
<b>Semester III (fall)</b>		
	Thesis	6
<b>Semester IV (spring)</b>		
	Continue of Thesis	-
<b>OtherOptional Courses</b>		
3716521	Saline and Alkaline Soils and improvement Methods	2
3716528	Flood Control	2
3716541	Geographic Information Systems	2