**DESCRIPTION OF INDIVIDUAL COURDE UNITS**

|  |  |
| --- | --- |
| Course Unit Title and Code: SM-6041 Fish Growth and Growth Analysis | Programme Title: Fisheries PhD |
| Semester | The Methods of Education (ECTS) |  |
| Theoretical | Practice | Lab. | Project Work | Other | Total | ECTS |
| 1 | 3 | - | - |  |  | 3 | 5 |
| Languish of Course Unit  | Turkish |
| Type of Course Unit (Compulsory/Elective) | Elective |
| Preconditions | None |
| **Name of Lecturer** | Prof. Dr. Rahmi AYDIN |
| Class | PhD |
| Objectives of Course Unit | Fish growth and growth analysis and teaching of the factors affecting growth. |
| **Teaching Techniques**  | Lecture, question and answer, discussion, brain storming, individual work |
| **Course Unit Contents** | The length of fish life, the infinite-size, factors affecting growth, length-weight relationship, age-determination methods, the age-length relationship, condition factor. |
| Recommended or Required Reading | 1. Schreck, C. B., Moyle, P.B., 1990: Methods for Fish Biology. Exxon Company, USA, 684 s. Demir, N. 1996:
2. İhtiyoloji. İstanbul Üniversitesi Yayınlarından, Sayı: 3903, ISBN: 975-404-391-4, 394 s.
3. Avşar, D. 1998: Balıkçılık Biyolojisi ve Populasyon Dinamiği. Baki Kitap ve Yayınevi, Adana, 303 s.
4. Karataş, M. (Editör), 2005: Balık Biyolojisi Araştırma Yöntemleri.

Nobel Yayın No: 1, ISBN: 975-591-757-8, 498 s.1. Timur, M. 2006: Balık Fizyolojisi. Nobel Yayın No: 957. ISBN: 975-591-943-0, 192 s.
 |
| Learning Outcomes | 1. To understand the general features and life stages of fish
2. To evaluate the factors that affect learning and growth in fish
3. Learning the methods of age determination in fishes. Age-length and be able to comment on the age-weight relationship
4. Fish length-weight relationship and condition factor by calculating the values of the interpretation
	1. Learn about the life of fish length and calculate the values of infinite length
 |
| Weekly Detailed Course Contents | 1. General features and life stages of fish
2. Factors affecting the development and growth in fish
3. Nutrients in aquatic ecosystems, food chains and fish
4. Diet of larvae and young stages of fish
5. Diet of mature and old stages of the fish
6. Development and growth of larvae and young stages of fish. Development and growth of mature and old stages of fish
7. Mid-Term exam
8. Methods of estimation of fish growth
9. Fish age estimation methods
10. Age-weight and age-length relationship of fish
11. Length-weight relationship of fish
12. Condition factor of fish
13. Infinite-size calculations and mathematical models of fish growth
14. Term project presentations
15. Final Exam
 |