# AYDIN ADNAN MENDERES UNIVERSITY
## COURSE INFORMATION FORM

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|---|---|---|---|---|---|---|---|
| Course Title | Statistics | | | | | | |
| Course Code | OÖÖ321 | | Couse Level | First Cycle (Bachelor's Degree) | | | |
| ECTS Credit | 3 | Workload | 75 *(Hours)* | Theory | 2 | Practice | 0 | Laboratory | 0 |
| Objectives of the Course | This course aims to teach basic statistics and probability concepts. | | | | | | |
| Course Content | Introduction to statistics and basic concepts of statistics, descriptive statistics (measures of central tendency and distribution), estimation of universe parameters (standart error and reliability intervals), concept of correlations and alternative correlations methods, testing of hypothesis, decision making, difference tests, test of chi-square, the process of scale development, standardization and adaptation, data analizing with package programs and alternative programs. | | | | | | |
| Work Placement | N/A | | | | | | |
| Planned Learning Activities and Teaching Methods | | | Explanation (Presentation), Discussion, Problem Solving | | | | |
| Name of Lecturer(s) | Assoc. Prof. Mehmet Taha ESER | | | | | | |

## Assessment Methods and Criteria

| Method | Quantity | Percentage (%) |
|---|---|---|
| Midterm Examination | 1 | 40 |
| Final Examination | 1 | 70 |

## Recommended or Required Reading

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|---|---|
| 1 | Baykul, Y. (1999). İstatistik Metodlar ve Uygulamalar. Ankara: Anı Yayıncılık. |
| 2 | Baykul, Y. (2010). Eğitimde ve Psikolojide Ölçme: Klasik Test Teorisi ve Uygulaması. Ankara: Pegem Akademi. |
| 3 | Turgut, M.F. & Baykul, Y. (2010). Eğitimde Ölçme ve Değerlendirme. Ankara: Pegem Akademi. |
| 4 | Büyüköztürk, Ş. (2011). Sosyal Bilimler için Veri Analizi El Kitabı. Ankara: Pegem Akademi. |
| 5 | Köklü, N. & Büyüköztürk, Ş. (2000). Sosyal Bilimler için İstatistiğe Giriş. Ankara: Pegem Akademi. |
| 6 | Spiegel, M.R. & Stephens, L.J. (Çev.Ed. Esin, A. & Çelebioğlu, S.). (1999). İstatistik. Ankara: Nobel Yayıncılık. |

| Week | Weekly Detailed Course Contents | |
|---|---|---|
| 1 | Theoretical | Introduction to statistics and basic concepts of statistics |
| | Preparation Work | Baykul, Y. (1999). İstatistik Metodlar ve Uygulamalar. Ankara: Anı Yayıncılık. (pp:31-75) |
| 2 | Theoretical | Descriptive statistics (measures of central tendency and distribution) |
| | Preparation Work | Baykul, Y. (1999). İstatistik Metodlar ve Uygulamalar. Ankara: Anı Yayıncılık. (pp:75-136) |
| 3 | Theoretical | Estimation of universe parameters (standart error and reliability intervals) |
| | Preparation Work | Baykul, Y. (1999). İstatistik Metodlar ve Uygulamalar. Ankara: Anı Yayıncılık. (pp:256-269) |
| 4 | Theoretical | Estimation of universe parameters (standart error and reliability intervals) |
| | Preparation Work | Baykul, Y. (1999). İstatistik Metodlar ve Uygulamalar. Ankara: Anı Yayıncılık. (pp:269-290) |
| 5 | Theoretical | Concept of correlations and alternative correlations methods |
| | Preparation Work | Baykul, Y. (1999). İstatistik Metodlar ve Uygulamalar. Ankara: Anı Yayıncılık. (pp:140-182) |
| 6 | Theoretical | Testing of hypothesis, decision making, difference tests |
| | Preparation Work | Baykul, Y. (1999). İstatistik Metodlar ve Uygulamalar. Ankara: Anı Yayıncılık. (pp:316-345) |
| 7 | Theoretical | Testing of hypothesis, decision making, difference tests |
| | Preparation Work | Baykul, Y. (1999). İstatistik Metodlar ve Uygulamalar. Ankara: Anı Yayıncılık. (pp:345-373) |
| 8 | Theoretical | Test of chi-square |
| | Preparation Work | Baykul, Y. (1999). İstatistik Metodlar ve Uygulamalar. Ankara: Anı Yayıncılık. (pp:373-394) |
| 9 | Intermediate Exam | Midterm Exam |
| 10 | Theoretical | The process of scale development, standardization and adaptation |
| | Preparation Work | Baykul, Y. (2010). Eğitimde ve Psikolojide Ölçme: Klasik Test Teorisi ve Uygulaması. Ankara: Pegem Akademi. (pp:313-336) |
| 11 | Theoretical | The process of scale development, standardization and adaptation |
| | Preparation Work | Baykul, Y. (2010). Eğitimde ve Psikolojide Ölçme: Klasik Test Teorisi ve Uygulaması. Ankara: Pegem Akademi. (pp:336-362) |

| 12 | Theoretical | The process of scale development, standardization and adaptation |
|---|---|---|
| | Preparation Work | Baykul, Y. (2010). Eğitimde ve Psikolojide Ölçme: Klasik Test Teorisi ve Uygulaması. Ankara: Pegem Akademi. (pp:362-392) |
| 13 | Theoretical | Data analizing with package programs and alternative programs |
| | Preparation Work | Büyüköztürk, Ş. (2011). Sosyal Bilimler için Veri Analizi El Kitabı. Ankara: Pegem Akademi. (pp:31-79) |
| 14 | Theoretical | Data analizing with package programs and alternative programs |
| | Preparation Work | Büyüköztürk, Ş. (2011). Sosyal Bilimler için Veri Analizi El Kitabı. Ankara: Pegem Akademi. (pp:79-123) |
| 15 | Theoretical | Data analizing with package programs and alternative programs |
| | Preparation Work | Büyüköztürk, Ş. (2011). Sosyal Bilimler için Veri Analizi El Kitabı. Ankara: Pegem Akademi. (pp:123-182) |
| 16 | Final Exam | Final Exam |

**Workload Calculation**

| Activity | Quantity | Preparation | Duration | Total Workload |
|---|---|---|---|---|
| Lecture - Theory | 14 | 0 | 2 | 28 |
| Reading | 14 | 0 | 2 | 28 |
| Midterm Examination | 1 | 8 | 1 | 9 |
| Final Examination | 1 | 8 | 2 | 10 |
| | | | Total Workload (Hours) | 75 |
| | | [Total Workload (Hours) / 25*] = **ECTS** | | 3 |

*25 hour workload is accepted as 1 ECTS

**Learning Outcomes**

| 1 | The learner is expected to be able to making basic statistical calculations on a data set with using descriptive statistics that measures of central tendency and distribution. |
|---|---|
| 2 | The learner is expected to be able to determinate the relation between two data sets with using different correlation methods. |
| 3 | The learner is expected to be able to estimate the universe parameters with using statistics that collected from sample. |
| 4 | The learner is expected to be able to make desicions about a data set with using different tests of hypothesis. |
| 5 | The learner is expected to be able to use various software packages in analysing data. |

**Programme Outcomes** (Early Childhood Teacher Education)

| 1 | To be able to gain subject knowledge of profession in theory and practice in the learning process. |
|---|---|
| 2 | To be able to gain the competence of using the appropriate approach, strategy, technique for the plans in the learning process, by making instructional plans related to the subject-matter. |
| 3 | To be able to gain skills of the teaching profession in the learning process. |
| 4 | To be able to implement teaching profession knowledge, skills, attitudes and habits related to the subject-matter in a real teaching and learning environment in the learning process. |
| 5 | To be able to comprehend contemporary approaches of education and the philosophies they are based on. |
| 6 | To be able to gain the basic skills such as comprehending, expressing, commenting, evaluating, being aware and enterprising, communicating, acknowledging the individual related to the subject-matter |
| 7 | To be able to become individuals faithful to the Principles and Revolutions of Ataturk, be modern, democratic,, secular, protecting and deveoping one's country, being alive to the nation, respecting human rights, preserving the nature, not being discriminatory, giving importance to the traditions and customs, protecting the values |
| 8 | To be able to improve oneself in terms of sport, art and culture |
| 9 | To be able to become individuals believing in lifelong learning. |
| 10 | To be able to educate individuals who keep up with developments in social, economic, technological and scientific areas, who investigate the main reasons of World problems and try to contribute to the solution of these problems |

**Contribution of Learning Outcomes to Programme Outcomes** 1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High

| | L1 | L2 | L3 | L4 | L5 |
|---|---|---|---|---|---|
| P1 | 2 | 2 | 2 | 2 | 2 |
| P2 | 3 | 3 | 3 | 3 | 3 |
| P3 | 2 | 2 | 2 | 2 | 2 |
| P4 | 2 | 2 | 2 | 2 | 2 |
| P5 | 2 | 2 | 2 | 2 | 2 |
| P6 | 2 | 2 | 2 | 2 | 2 |

| P7  | 2 | 2 | 2 | 2 | 2 |
| --- | - | - | - | - | - |
| P8  | 2 | 2 | 2 | 2 | 2 |
| P9  | 2 | 2 | 2 | 2 | 2 |
| P10 | 2 | 2 | 2 | 2 | 2 |