

**ELTE Társadalomtudományi Kar**  
**Survey statisztika és adatanalítika mesterképzés angol nyelven**  
**Felvételi követelmények**  
**2024/25/1. félévtől**

**A jelentkezők részére az alábbi szakirodalmakból javasolt a felkészülés a felvételi vizsgára:**

- Freedman, D. - Pisani, R. - Purves, R.: Statistics, 4th edition. W. W. Norton & Company, 2007 (or later edition)

**A szóbeli felvételi vizsga tételsor:**

During the exam, applicants will have a discussion on one of the topics listed below. The topics are based on Freedman, D. - Pisani, R. - Purves, R.: Statistics, 4th edition. W. W. Norton & Company, 2007 (or later edition). After each topic the corresponding parts of the Freedman et al. book are listed.

1. Experiments and observational studies (Freedman Part I.)
2. Probability: independence, product rule, addition rule, conditional probability (Freedman Part IV.)
3. Statistical inference: point estimate, confidence interval, why inference is useful, what has an effect on the confidence interval (Freedman Part V. and VII.)
4. Null hypothesis significance testing: why is it useful, null- and alternative hypothesis, significance level, one- and two-sided tests (Freedman Part VIII.)
5. Z-test, t-test: when are these applied, what is the difference between one- and two-sample (independent samples) tests (Freedman Part VIII.)
6. Chi-square tests: when are these used, what are the assumptions (Freedman Part VIII.)
7. Correlation: what is it used for, what are the assumptions, how to use it (Freedman Part III.)
8. Regression: what is it used for, what are the assumptions, how to use it (Freedman Part III.)
9. Reliability and validity: what do these mean, what factors influence these (Freedman Part I. and VI.)
10. Sampling: simple random sampling, stratified sampling, two-stage sampling, sampling design and validity, why use two-stage sampling, what is representativity (Freedman Part VI.)