# PROLOG

**These lectures have been written for an introductory course in Bayesian Statistics for students of "Applied Statistics and Data Science" Program.**

We begin to study "Bayesian Statistics" course that is devoted to the study of random phenomena using well-known formula from probability theory. The science of statistics deals with drawing conclusions from observed data.

**STATISTICS IS THE ART OF LEARNING FROM DATA.**

Statistics is concerned with development of methods and their applications for collecting, analyzing and interpreting quantitative data in such a way that the reliability of a conclusion based on data may be evaluated objectively by means of probability theory.

Few words about textbooks which you will need. These are the following:

**Main textbook:**

**1.**"Introduction to Bayesian Statistics", Victor K. Ohanyan, (These lectures have been written for an introductory course in Bayesian Statistics for students of "Applied Statistics and Data Science"), YSU, 2020.

**2.** Peter D. Hoff "A First Course in Bayesian Statistical Methods", Springer, 2009.

The duration of the classes: from February 12 till May 31, 2020. You will have classes 2 times per a week.

You will have 5 home tasks, 2 Midterm exams and the Final Exam.

**The only way to truly learn mathematics is to solve as many problems as possible.**

| Hometasks | Midterm-1 | Midterm-2 | Final |
|---|---|---|---|
| 2 | 5 | 5 | 8 |