TAUGHT COURSE "FOUNDATIONS OF DATA MATHEMATICAL PROCESSING"

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Results of medical and chemical research and experiments require analysis, mathematical modeling and statistical processing of raw data. The discipline "Foundations of Data Mathematical Processing" is designed for biology, chemistry and physics students of "Biology and Chemistry", "Chemistry", "Chemistry and Ecology" and "Fundamental Physics" specializations and contains 2 credits (72 academic hours).

The main concept of the course is integration of theoretical statistical methods and numerical techniques and practical skills of data processing and analysis. In this regard course structure, content, methodological and organizational aspects of the course delivery should be discussed.

The structure of the discipline involves 6 modules, each of them allows students to follow an individual learning path to acquire theory and practical skills:

- Error theory
- Probability calculus. Probability methods of data processing and analysis
- Mathematical statistics
- Searching for parameters of empiric formula through least squares method
- Correlation dependence
- Calculus of data processing and analysis.

Content of the discipline includes three strands: theoretical, practical and methodological. Organizational aspects of the course delivery include interactive teaching with the ICT use to complete individual assignments and projects.

Reference

1. *Zavarykin V.M.* Applied Focus of the Course "Mathematics" for master students of the Chemical Department.// XIII International conference "Physical science education: issues and development prospects" proceedings. Part 1.– M.: MSPU, 2014, PP. 224-227
2. *Bavrin I. I.* Advanced Math for pedagogical education. M. Urait Publishing House. 2014. – 616 p.