

**ENGINEERING ECONOMICS AND ITS SUBJECT OF STUDY**

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Let me welcome everyone and introduce myself - my name is Vlad, I am 18 and I'm currently a 1st year student of engineering economics. Someone might think that this specialty is a little bit controversial and silly. But I would like to present some information about student's life in BNTU and engineering economics in particular. So, as the name suggests, I am taking a course both on economic and technical disciplines. And now I am going to narrate you about a few of them and about my specialty in general.

First of all engineering economics is a branch of economics that deals with the application of economic principles to engineering projects and decision-making. It includes the analysis of costing, benefits, and risks associated with engineering projects, along with the evaluation of various options and alternatives to find out the most cost-effective solution. Engineering economics also plays a crucial role in project management by helping engineers efficiently and effectively distribute resources by considering factors such as time value of money, inflation, taxes, and depreciation. Also throughout the project lifecycle, economic engineers have the ability to create project budgets, accurately estimate costs, and monitor financial performance [1].

This allows them to make necessary adjustments to keep the project financially on track. Furthermore, engineering economics helps engineers assess and mitigate risks associated with engineering projects. By conducting risk analysis and incorporating risk management strategies into their decision-making process, engineers can minimize the potential negative impact of uncertainties on project costs and outcomes. This allows them to make more informed decisions that reduce financial risks and improve the likelihood of project success. But in order for a specialist to be able to do all this, he should first have a good knowledge of the subjects taught at the university. And now I will tell you about them.

1. Business Economics: This course provides students with an understanding of the basic principles and concepts of business economics. They study how businesses function and how they make decisions about production, marketing and finance.

2. Financial Management: Students in this course learn how to manage the finances of an enterprise, including evaluating financial performance, making financing decisions, managing risk, and developing strategies to achieve financial goals.

3. Accounting: This course teaches students the basics of accounting. They learn how to keep accounting records, how to prepare financial statements and how to analyse financial data.

4. Marketing: This course teaches students the basics of marketing. They learn how to conduct marketing research, how to develop marketing strategies and how to manage marketing campaigns.

5. Information Technology: This course teaches students the basics of information technology. They learn how to use computer programmes and systems to manage finances, marketing and other aspects of business.

In conclusion, engineering economics is a vital aspect of the engineering profession that combines economic principles with engineering problem-solving to make informed financial decisions. By analyzing costs, benefits, risks, and profitability of engineering projects, engineers can optimize resource allocation, improve project outcomes, and ensure long-term sustainability.

Through the use of tools such as cost-benefit analysis, net present value analysis, and sensitivity analysis, engineers can evaluate the financial implications of their decisions and make strategic choices that benefit both the project and the organization.

Ultimately, engineering economics enables engineers to not only design and implement successful projects but also to maximize their economic impact and contribute to the growth and success of the engineering industry as a whole.

## References

1. Engineering Economics: Scientometric Analysis of the Subject Area [Electronic resource] – Mode of access: <https://cyberleninka.ru/article/n/engineering-economics-scientometric-analysis-of-the-subject-area> – Date of access: 25.03.2024.