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PLO Implementation and Future Skills –Case of Georgia



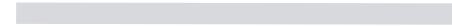
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2024



Content

- National Qualification Framework
- Sectoral Benchmarks
- Guidebook
- HEI`s practices
- Future Skills





PLOs due to NQF

Knowledge and understanding

- Deepness

Skills

- Complexity

Responsibility and autonomy

- Quality



Levels of Qualification
=8



Sectoral Benchmarks

Learning Outcomes
Teaching, Learning and Evaluation
Qualification to be awarded

Stakeholders

Academic Experts for HEIs

Employers

Associations



Higher Education Sector Benchmarks

Education

Arts, Humanities

Social Sciences, Journalism and Information

Business, administration and law

Natural sciences, mathematics and statistics

[Information and communication technologies](#)

Engineering, Manufacturing and Construction

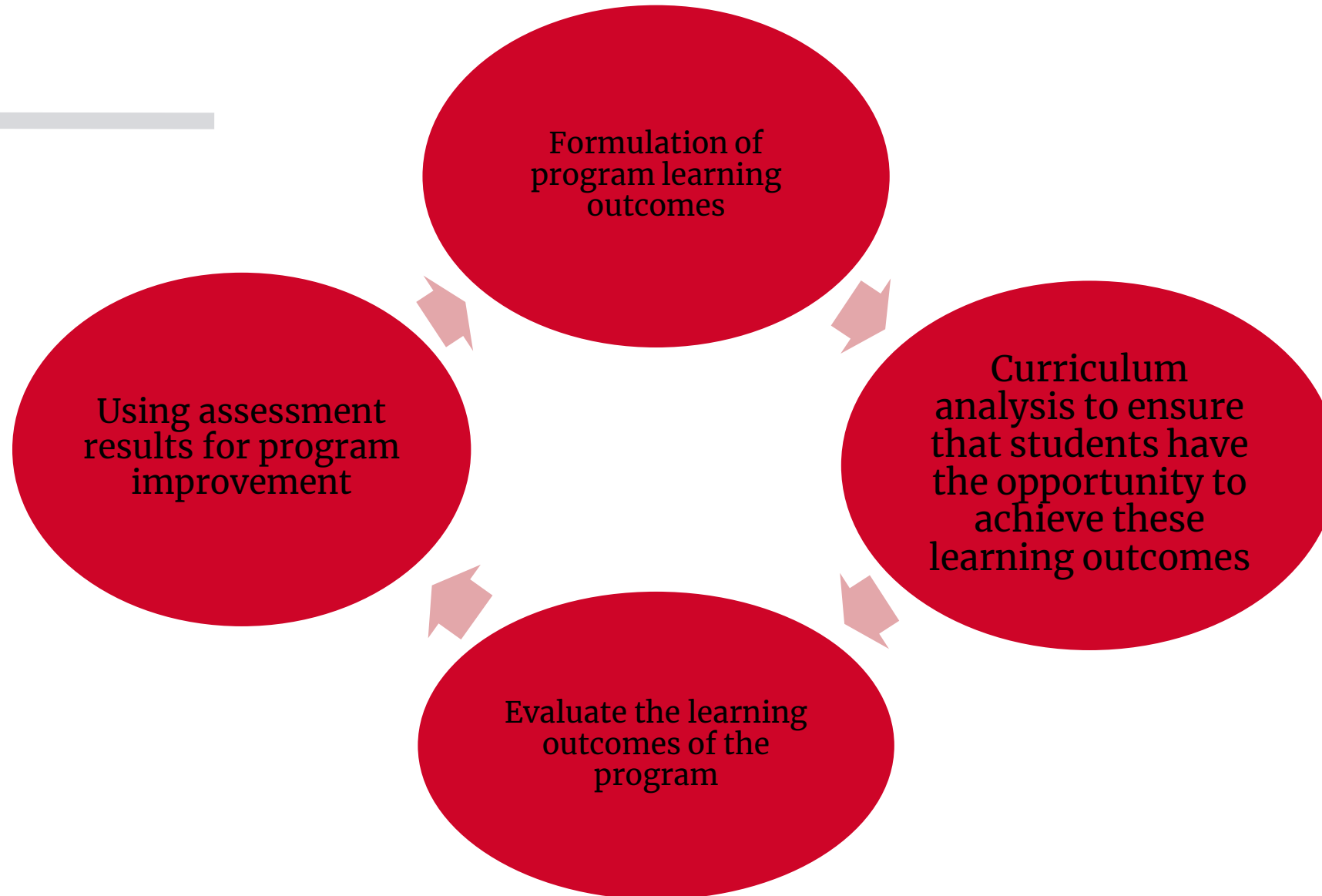
Agriculture, forestry, fishing, veterinary medicine

Health care, social welfare

services

Archive

Stages of Evaluating PLOs






Programs goals and LOs

| Program Goals | PLO 1 | PLO 2 | PLO 3 | PLO 4 | PLO 5 |
|---------------|-------|-------|-------|-------|-------|
| a | ✓ | | ✓ | | ✓ |
| b | | | | ✓ | |
| c | ✓ | | | | |
| d | | | ✓ | | ✓ |
| e | ✓ | | | | ✓ |

Practice

Mapping program objectives and learning outcomes

| <p>PLOs</p> <p>Program Objectives</p> | <p>To give the student the opportunity to get a broad knowledge of the field of electronics and automation, which through research programs prepares a  for further studies in the master's degree and/or work with the received qualification.</p> | <p>The student will acquire knowledge based on the fundamental theories and principles of mathematics, electronic and computer engineering, which will enable him to plan, design and develop electronic and computer systems and devices.</p> | <p>To prepare high-level, competitive specialists with the broad theoretical knowledge and practice-oriented, transferable skills necessary for professional activities in the field of modern electronics and automation.</p> |
|--|--|--|--|
| <p>Describes the basic concepts of electronics and computer engineering. Explains the theoretical aspects of the field based on a broad theoretical knowledge of mathematics, physics and engineering.</p> | <p>X</p> | <p>X</p> | |
| <p>Describes the principles of computer system and network operation and security.</p> | | <p>X</p> | |
| <p>Develops, selects and uses electro-technical system and software to solve complex engineering tasks.</p> | | <p>X</p> | <p>X</p> |

PLO of the study course mapping to PLO to the program.

| Study course | PLO 1 | PLO 2 | PLO 3 | PLO 4 | PLO 5 |
|--------------|-------|-------|-------|-------|-------|
| a | 1 | | 1 | | 1 |
| b | | | | | |
| c | 2 | | | | 2 |
| d | | | 2 | | 2 |
| e | 3 | | | | 3 |

1 - Introduction; 2 - deepening; 3 - Reinforcement

Practice

| PLOs | Introduction to Education Studies (6 ECTS.) | Research with qualitative methods (6 ECTS.) | Research with quantitative methods (6 ECTS.) | Pedagogical practice research(6 ECTS) | Master thesis (18 ECTS) |
|---|---|---|--|---------------------------------------|-------------------------|
| Is familiar with current trends and positions in scientific discussions in educational sciences; | x | | | | |
| Able to analyze and critically evaluate current trends and scientific discussions in the science of education. | | x | | | x |
| knows the latest research methods in the science of education; | | | | | |
| Depending on the specificity of the research issue, can select the appropriate research method, create / find / adapt the relevant tool, carry out field work, analyze the results and develop recommendations; | | x | x | x | x |

Practices

Relationship Program Learning Outcomes and Courses and the levels of assessment and achievement

| | |
|------------------------------|--|
| PLO N 1 | Describes the basic concepts of electronics and computer engineering. Explains the theoretical aspects of the field based on a broad theoretical knowledge of mathematics, physics and engineering. |
| Assessment Indicators | <ul style="list-style-type: none"> • Uses general principles of computer systems operation and programming. • Uses knowledge about the potential capabilities of communication systems. • Uses knowledge about semiconductor processes. • Uses methods of electric circuit theory. • Uses the working principles of electrical and electronic components. |

→ The rubric of evaluation indicators

| Assessment Indicators | Levels of assessment | | | |
|--|---|---|---|--|
| | Unsatisfactory (0-50 Points) | Satisfactory (51-70 Points) | Very good (71-90 Points) | Excellent (91-100 Points) |
| Uses general principles of computer systems operation and programming | It is difficult to apply the principles of computer network and systems operation | More or less uses the general principles of computer systems operation and programming. | Uses the general principles of computer systems operation and programming well enough | Uses general principles of computer systems operation and programming very well |
| Uses knowledge about the potential capabilities of communication systems | It is difficult to use the potential possibilities of communication systems. | More or less uses knowledge about the potential possibilities of communication systems | Uses knowledge about the potential capabilities of communication systems well enough | Uses knowledge about the potential capabilities of communication systems very well |

Future Skills

Data Analytics and Interpretation

Transnational and Cross-Cultural Competence

Sustainability and Environmental Awareness

E-commerce and Digital Marketing

Adaptability and Resilience

Remote Collaboration

Artificial Intelligence and Machine Learning

Digital Literacy

Cybersecurity

Health and Well-being

Main Challenges



HEIs - Employers Collaboration needs to be more intensive and on the large scale

Communication and understanding

Involve employers in the educational process and offering benefits and services

Employers suggestions



Ability to understand the organizational environment and perceive the specifics of the business

A systemic view of the organization

Perceiving the entire chain and understanding the connections between processes in the organization

The ability to perceive and adapt to the culture of the organization

Ability to delegate responsibilities when working in a team

Ability to manage a team and ensure the involvement of team members

Thank You!

