

**Bachelor program,
Instrumentation engineering (INEN) program, “Instrumentation engineering”
department**

Course Unit Title	Practical training (Industrial practice)	
Course Unit Code	PT	
Type of Course Unit	Compulsory	
Level of Course Unit	4 th year INEN program	
National Credits	0	
Number of ECTS Credits Allocated	21	
Theoretical (hour/week)	-	
Practice (hour/week)	18	
Laboratory (hour/week)	-	
Year of Study	4	
Semester when the course unit is delivered	8	
Course Coordinator	-	
Name of Lecturer (s)	-	
Name of Assistant (s)	-	
Mode of Delivery	Face to Face	
Language of Instruction	English	
Prerequisites	-	
Recommended Optional Programme Components	-	
Course description:		
<p>Practical training is an important aspect of "Instrumentation engineering" programs. It acts as a bridge between the theoretical knowledge acquired in the classrooms and the practical challenges present in the real-world work environment. This intensive experience exposes students to the complexities of their chosen field, providing insight into the application of theoretical concepts in industrial settings.</p>		
Objectives of the Course:		
<p>The objective of industrial practice is to familiarize students with real-world work scenarios, equipping them with the skills necessary for the professional landscape. It aims to bridge the gap between academic knowledge and practical application, fostering a seamless transition for graduates into the workforce.</p> <p>Practical training is the essential system to open understudies to genuine work life circumstances and to outfit them with the vital abilities that increase their activity keenness.</p>		
Practical training Outcomes		
At the end of the practical training the student will be able to		Assessment
1.	Understand and apply fundamental principles of science and engineering.	1,2
2.	Communicate effectively.	1,2
3.	Identify, formulate and model problems and develop engineering solutions using a systems approach.	1,2
4.	Conduct research in selected areas of engineering.	1,2
5.	Understand the importance of sustainability and cost effectiveness in the design and development of engineering solutions.	1,2
6.	Be a generalist engineer with good technical knowledge, management, leadership and entrepreneurial skills.	1,2
7.	Be aware of the social, cultural, global and environmental responsibilities of an engineer.	1,2
8.	Improve themselves through continuous professional development and lifelong learning.	1,2
Assessment Methods: 1. Practical training (Industrial practice) report, 2. Bachelor Thesis (Graduation work)		
Course's Contribution to Program		
		CL
1	Ability to develop as a specialist in the field of fundamental sciences and apply basic knowledge.	4-5*
2	Ability to analyze and model functional and structural schemes of various purpose devices and systems.	4-5*
3	Ability to use modern methods and tools, creation, selection, and application of	4-5*

	engineering and information technology tools and modern devices and equipment.	
4	The ability to use the strategy of team cooperation in the exchange of information, knowledge, and experience to achieve the set goal.	4-5*
5	As a result of training, the ability to use engineering knowledge, mathematical models, and basic concepts of physics and chemistry in production and technological processes, automation, measurement, and control systems.	4-5*
6	The ability to use modern software to process technical documents of devices, design their structures, and algorithmize processes.	4-5*
7	The ability to apply artificial intelligence to improve the quality characteristics of measurement and control systems.	4-5*
8	The ability to process information acquisition, processing, and transmission processes based on schematic and programmable logical integrated circuits.	4-5*
9	Ability to use knowledge to improve quality indicators and environmental safety of production processes.	4-5*
10	Self-development ability to apply theoretical and experimental knowledge in solving modern engineering problems.	4-5*

* Depend on practical training place

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate, 4: High, 5: Very High)

Course Contents

Week	Chapter	Topics	Exam
1	•	Orientation at the enterprise, safety briefing, familiarization with the enterprise structure	
2	•	Study of production equipment and technological processes at the enterprise	
3	•	Study of production equipment and technological processes at the enterprise	
4	•	Inspection and preparation of a preliminary report on the equipment or technology of interest	
5	•	Inspection and preparation of a preliminary report on the equipment or technology of interest	
6	•	Inspection and preparation of a preliminary report on the equipment or technology of interest	
7	•	Completion of practical assignments, analysis of equipment and processes	
8	•	Completion of practical assignments, analysis of equipment and processes	
9	•	Completion of practical assignments, analysis of equipment and processes	
10	•	Preparation of an extended analysis and proposal for optimization for a specific equipment or technological line	
11	•	Preparation of an extended analysis and proposal for optimization for a specific equipment or technological line	
12	•	Preparation of an extended analysis and proposal for optimization for a specific equipment or technological line	
13	•	Preparation of a general report in accordance with the required rules and preparation for presentation	
14	•	Preparation of a general report in accordance with the required rules and preparation for presentation	
15			Defense of final report (at a university or at the enterprise)

Recommended Sources

TEXTBOOK(S)

- The necessary literature and references to sources are provided to each student individually by the practical training supervisor.

Assessment

Attendance	50%	Less than 75% practical training attendance results in NA
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		grade
Presentation	0%	
Lab	0%	
Quiz	0%	
Midterm Exam	0%	
Final report and presentation	25%	Written
Defense of final report	25%	Oral
Total	100%	

Assessment Criteria

Final grades are determined according to the Academic Regulations of Azerbaijan State Oil and Industry University for undergraduate studies

Course Policies

- Attendance of the course is mandatory.
- Cheating and plagiarism will not be tolerated.
- Cheating will be penalized according to the Azerbaijan State Oil and Industrial University General Student Discipline Regulations

ECTS allocated based on Student Workload

Activities	Number	Duration (hour)	Total Workload (hour)
Practical training duration	14	18	252
Self-study	14	10	140
Tutorials	14	16	224
Preparation of final report and presentation	1	13.5	13.5
Defense of final report	1	0.5	0.5
Total Workload			630
Total Workload/30(h)			21
ECTS Credit of the Course			21