



**Table 4. Program Learning Outcome (reformulation of PLO Table 2)**

No	Program Learning Objectives (PLO)
<b>PLO-1</b>	Able to apply Natural Sciences and Mathematics in the field of Biomedical Engineering.
<b>PLO-2</b>	Able to find, understand, explain, formulate, and solve general problems in the field of Engineering and special problems in the field of Biomedical Engineering which includes intelligent biomedical instrumentation, medical rehabilitation techniques, imaging and processing of medical images, and medical informatics.
<b>PLO-3</b>	Able to design and implement laboratory experiment and / or field experiments, analyze and interpret data, and use objective assessments to draw conclusions.
<b>PLO-4</b>	Have good skills in oral and writing communications.
<b>PLO-5</b>	Able to design components, systems, and processes in the field of Biomedical Engineering that are systematic, logical, and realistic appropriate with specified specifications by considering aspects of safety, social, cultural, environmental, and economic by recognizing / utilizing local and national resources with global insight.
<b>PLO-6</b>	Able to apply the latest knowledge, skills and methods in solving problems in the field of Biomedical Engineering.
<b>PLO-7</b>	Able to plan, complete, and evaluate tasks within existing boundaries.
<b>PLO-8</b>	Able to work in interdisciplinary and intercultural teams and be responsible to the community and comply with legal and professional ethics in solving Biomedical Engineering problems.
<b>PLO-9</b>	Able to know / follow the latest developments in the field of science and technology and to react objectively by promoting the values of universal truth.
<b>PLO-10</b>	Able to apply the principles of technology and managerial ability to be able to work in the field of Biomedical Engineering as well as in community life in the national and international level.
<b>PLO-11</b>	Able to understand the need for lifelong learning.
<b>PLO-12</b>	Able to behave and act religiously, nationally, respectfully, independently, and persistently.

Link : <https://www.its.ac.id/tbiomedik/academics/intended-learning-outcomes/>



## ASIIN Criteria

**Table 5. Educational Objectives of ASIIN**

Educational Objectives	No	ASIIN's Subject Specific Criteria	PLO													
			1	2	3	4	5	6	7	8	9	10	11	12		
Knowledge and understanding	1	Graduates have in particular gained a broad and sound knowledge in mathematics, natural sciences and engineering enabling them to understand the complex phenomena peculiar to electrical engineering / information technology.	x													
	2	Graduates have in particular gained an understanding for the broader multidisciplinary context of Engineering Sciences.		x												
Engineering analysis	3	Graduates are able to select and apply actual methods of modelling, calculating, and testing concerning their field of specialization.			x											
	4	Graduates are able to make research of technical literature and other sources of information relating given problems.			x	x										
	5	Graduates are able to design and run experiments and computer simulations and to explain the results.			x	x										
	6	Graduates are able to consult data base systems, information on norms, guidelines ("codes of good practice") and safety regulations for these purposes.			x	x										
Engineering design	7	Graduates have special abilities to develop analogue and digital electric and electronic circuits, devices and products.					x									



Educational Objectives	No	ASIIN's Subject Specific Criteria	PLO													
			1	2	3	4	5	6	7	8	9	10	11	12		
	8	Graduates control in their design work the use of elements like modelling, simulation and tests as well as their integration in a problem oriented way.		x				x								
	9	Graduates are able to design products for the global market.		x				x								
Engineering practice and product development	10	Graduates can apply their knowledge and understanding to acquire practical skills for problem solving, for research tasks and the design of systems and procedures.						x							x	
	11	Graduates have access to experience concerning possibilities and limits of the application of materials, computer-based model designs, systems, processes and tools for the solution of problems when solving complex problems.		x				x								
	12	Graduates know the practice and its demands in production plants.							x						x	
	13	Graduates are capable of searching technical literature and other information sources.				x			x							
	14	Graduates demonstrate awareness of the health, safety and legal issues and responsibilities of engineering practice, the impact of engineering solutions in a societal and environmental context.									x					
	15	Graduates commit to professional ethics, responsibilities and norms of engineering practice.										x				



Educational Objectives	No	ASIIN's Subject Specific Criteria	PLO														
			1	2	3	4	5	6	7	8	9	10	11	12			
	16	Graduates use the appropriate scientific methods and new findings of the engineering and science environment in their practical work while taking into consideration the economic, ecological, technical and social requirements.					x	x									
	17	Graduates are aware of the nontechnical effects of engineering activities.								x							
	18	Graduates are in the position to develop marketable products for the global market.					x	x			x						
Transferable skills	19	Graduates are able to analyze and present technical contexts understandingly in their own field and in neighbor fields.								x	x						
	20	Graduates are able to operate on technical working tasks in a team and to coordinate it if necessary.								x		x				x	
	21	Graduates are able to demonstrate an awareness of project management and business practices, such as risk and change management, and understand their limitations.									x	x					
	22	Graduates are able to recognize the need for, and have the ability to engage in independent, life-long learning.										x			x		x