

No.	Coverage of Engineering Discipline in Indonesia
1.	<p>Civil Engineer is a person who has a professional degree in civil engineering. These professions generally have comprehensive competence (knowledge, skills / expertise, and work attitude) in the construction industry and / or other industries that require the competence of Civil Engineers (such as industries: oil and gas, mining, energy, manufacturing, earth information, agriculture , livestock, forestry, maritime, military, etc.).</p> <p>In practice, a Civil Engineer shall have certain qualifications as required to perform assigned work, and have sufficient skills to work with engineers from other disciplines, such as mechanical engineering, electrical engineering, electrical engineering, environmental engineering, informatics engineering and communications, agricultural engineering, forestry engineering, marine engineering, and other disciplines according to the industry sector.</p> <p>Civil Engineering is largely composed of disciplines: Civil Engineering, Structural Engineering, Geotechnical Engineering, Water Resources Engineering, Transportation Engineering, and Project Management (Project Management), and its subdisciplines, as well as other disciplines or sub-disciplines that may emerge as science and technology develops, as well as markets.</p>
2.	<p>Mechanical Engineer is a profession that has the integration competence of several scopes of mechanical engineering disciplines in implementing, managing and leading engineering practice in mechanical engineering, including and not limited to: production field (industry, manufacturing and capital goods industry), consultancy, and design, construction field (fabrication, installation), transportation (transportation, heavy equipment), energy and mining fields, agricultural machinery field, mechatronics, automation and natural resource and fuel processing fields. Mechanical engineering involves disciplines of mathematics, science, technology (engineering), engineering, energy conversion and environmental engineering.</p>
3.	<p>Electrical Engineer is someone who has a profession in Engineering. This profession has integrated competencies of several disciplines and technological practice for efficient electrical power plant, telecommunication and electronic engineering.</p> <p>Electrical engineering involves disciplines such as power plant engineering, physics engineering (instrumentation and control systems), civil engineering (power plant construction, transmission, transmission tower), computer science and informatics engineering (database, SCADA), electro (biomass) and others.</p>
4.	<p>Chemical Engineer is someone who has a professional degree in Chemical Engineering. This profession has an integrated competence of several disciplines and practice of technology for efficient chemical engineering. This chemical keinsunyanan involve disciplines such as chemical engineering, physics, biology, and mathematics, and engineering and others.</p>
5.	<p>Engineer of Physics is a person who has / got a profession of engineers through Physic Engineering Profession Program.</p> <p>Professions of Engineering Physics which includes qualifications of Engineers and Professional Engineers have the competence to perform integrated synthesis of basic science and engineering science in engineering work, including: ● acoustic technique, illumination technique, ● thermal engineering, and ● instrumentation, measurement and control techniques, and engineering work on systems of engineering and / or other technologies requiring specialized knowledge and / or ability in scientific Engineering to perform an integrated synthesis of basic science and engineering science.</p>
6.	<p>Aerospace Engineer is a person who has a professional degree in Engineering. Aerospace Engineer is a profession concerning the design, operation, maintenance, modification and sustainability of an</p>

	<p>aeronautical / astronautical product (aircraft, spacecraft, satellite, missile and unmanned aerial system, propulsion system and aircraft systems).</p> <p>This profession has an integrated competence of several disciplines and practice of technology for the design, operation and maintenance of aircraft and its supporting system. Aerospace engineers have a good understanding of the basic knowledge of techniques that build aeronautical / astronautic disciplines, namely aerodynamics and or</p>
7.	<p>Marine Engineer is a person who has a profession in Engineering. This profession has integrated competencies of several disciplines and technological practices to design, build, install, inspect, maintain and operate as well as research and development on various marine buildings, such as ships and fittings and offshore structures.</p>
8.	<p>Industrial Engineer is someone who has a profession in Engineering. This profession has competencies in designing, improving, and installing integrated systems comprising of human and social organizations and systems, as well as machinery - facilities, materials, energy, and information and knowledge) to be able to produce output in the form of goods, services, or goods and services in accordance with the demand of customers and other stakeholders including the environment, with efficiency and high productivity.</p> <p>This discipline builds on the body of knowledge related to ergonomics, operational research, manufacturing systems, and management systems, and uses a systems approach as the main characteristic in every effort to solve industrial and systemic problems.</p>
9.	<p>Environmental Engineer / Sanitary Engineer is a profession that has the integration competence of several disciplines and practices of efficient and appropriate environmental engineering, and can ensure the implementation of environmental management that can ensure the improvement of environmental quality.</p>
10.	<p>Petroleum Engineer is a person who has a profession in the field of Petroleum Engineering. This profession has the integration competence of several disciplines and technological practices for the exploration, exploitation, development of an Oil / Gas field until the field is safely abandoned, without damaging the environment. The heart of the Petroleum Engineer is a reservoir technique that is the knowledge to exploit the oil, gas and geothermal from the reservoir for production to the surface.</p> <p>Petroleum engineering involves disciplines such as geophysical engineering (aksition and seismic interpretation), geological engineering (mapping, petroleum system analysis), mechanical engineering (drilling equipment and machinery, production equipment), electrical engineering (generator), chemical engineering (process equipment) , civil engineering (platform construction, well template), physical engineering (hydraulic system, automatic machine, monitor panel), shipping technique (support vessel).</p>
11.	<p>Mining Engineer is a person who has a profession in Engineering. This profession has competencies in geological engineering and / or geophysical engineering which is integrated with several basic disciplines and technological practices for the utilization and industry of earth resources, infrastructure, environment and earth energy, and others.</p>