

DIV - Cleaner Production Chemical Engineering

Politeknik Negeri Bandung

Vision

To become a superior and leading study program in supporting the development of the process industry in Indonesia in the era of globalization through education, research, and community service by clean technology-based academics

Mission

- 1) Conduct and organize Diploma 4 education to produce graduates who are able to operate and maintain the chemical industry and have the spirit to continue to develop, have good morals, have an entrepreneurial spirit and are environmentally friendly
- 2) Carry out applied research and disseminate the results for the development of science and technology for clean production processes
- 3) Carry out community service activities through the use of science and technology to support an environmentally conscious quality of life

Graduates Profile

No.	Graduates Profile	Scope of Work Ability
1.	Supervisor in Chemical / Process Industry	<ol style="list-style-type: none">1. Have the ability to complete work in production planning and evaluate the performance of the production process2. Have the ability to lead, manage and work in a team with a high work ethic, ethics, and responsibility3. Have the ability to operate and maintain production and supporting processes in the process industry by implementing work safety and environmental management
2.	Process Engineer	<ol style="list-style-type: none">1. Have the ability to design processes and processing systems2. Have the ability to solve process engineering problems, processing systems, and the necessary equipment3. Have entrepreneurial insight
3.	Process Technologist	<ol style="list-style-type: none">1. Have the ability to evaluate the performance of the production process2. Have the ability to model the performance of the production process

Learning Outcomes

Attitudes & Values

- a. Fear God Almighty and be able to show an honest and responsible attitude
- b. Upholding human values in carrying out duties based on religion, morals, and ethics
- c. Act as a citizen who loves the homeland, has nationalism and has a sense of responsibility to the country and nation
- d. Contribute to improving the quality of life in society, nation, state, and the progress of civilization based on Pancasila
- e. Cooperate and have social sensitivity and concern for society and the environment
- f. Appreciate the diversity of cultures, views, religions, and beliefs, as well as the opinions or original findings of others
- g. Obey the law and discipline in social and state life
- h. Demonstrate a responsible attitude towards work in their area of expertise independently
- i. Integrating academic values, norms, and ethics
- j. Internalize the spirit of independence, struggle, and entrepreneurship

General Abilities

- a. Able to apply logical, critical, innovative, quality and measurable thinking in doing work
- b. Demonstrate independent, quality and measurable performance
- c. Apply environmental-based science and technology to produce process unit designs/factory designs
- d. Prepare reports on the results of work processes correctly and accurately
- e. Able to make decisions in the production process based on occupational safety and health and the environment
- f. Develop cooperation with internal and external environment
- g. Responsible for the results of supervision and evaluation of the work of subordinates
- h. Evaluating the completion of work assigned to workers under their responsibility
- i. Able to document work results to avoid duplication / plagiarism

Special Abilities

- a. Able to apply theoretical concepts of natural science, application of engineering mathematics, engineering principles, and engineering science to operate processing systems and equipment needed
- b. Able to control processing systems and necessary equipment
- c. Able to perform chemical analysis based on standard standard methods (SI, SNI, ASTM, ASME, etc.)
- d. Able to implement a work culture by prioritizing safety, occupational health and the environment
- e. Able to evaluate the feasibility of limited business activities by taking into account economic, social and ecological aspects

- f. Able to identify and provide alternative solutions for processing problems and required equipment based on predetermined conditions
- g. Able to use the latest technology in carrying out work that provides added value

Knowledge Mastery

- a. Mastering the theoretical concepts of natural science, applications of engineering mathematics, engineering principles, and engineering science
- b. Mastering the principles, techniques of operation and control of processing systems and equipment needed
- c. Mastering knowledge about work culture and prioritizing safety, occupational health and the environment
- d. Mastering the latest principles and issues in economic, social, ecological issues in general and mastering knowledge about the development of process technology

Users

- Petroleum and Gas Industries
- Petrochemical Industries
- Cement Industries
- Polymer Industries
- Pulp & Paper Industries
- Mining Products Industries
- Food Industries
- Pharmaceutical and Cosmetic Industries
- Textile Industries
- Electroplating Industries
- Essential Oil Industries
- Agricultural Product Processing Industries
- Chemical Laboratory Supervisors
- Indonesian Institute of Sciences
- Sales of Engineering Industrial Equipment and Chemicals
- Entrepreneurship

Graduates Excellence

- Able to operate key equipment and supporting equipment in the Process Industry
- Able to carry out maintenance and repair of equipment in the Process Industry.
- Able to evaluate production process performance
- Able to understanding industrial work safety systems
- Able to operate industrial waste treatment units
- Able to be an entrepreneur in chemical engineering field