



EXPECTED LEARNING OUTCOMES FOR CHEMICAL ENGINEERING

(Promulgated with Decision No: 2931/2021/QĐ-TĐT dated 31 December 2021 by the President of Ton Duc Thang University)

- 1. Awarding Institution: Ton Duc Thang University**
- 2. Name of programme: Chemical Engineering**
- 3. Programme Code: 7520301**
- 4. Level: Undergraduate** **Mode of study: Full-time**
- 5. Training Degree: Engineer**
- 6. Programme objectives:**

POs	Description of Programme Objectives
PO1	Graduates become chemical engineers with solid foundation knowledge, both in theory and professional practice.
PO2	Graduates will master in research methods, critical thinking, creativity, and capacity of lifelong learning, development of technical skills and knowledge, or pursuit of advanced degrees.
PO3	Graduates are able to apply and work with modern chemical techniques, operate and control the production process for chemical products, manage or consult chemical engineering projects.
PO4	Graduates have the ability to effectively work in individual as well as in a team under a high-pressure environment, fully integrating into the high quality labor market.
PO5	Graduates are chemical engineers with high-specialized quality, good personality, health, discipline, and professional ethics.

7. Programme Expected Learning Outcomes

PLOs	Description of Programme Learning Outcome	Bloom's revised taxonomy level
PLO1	Demonstrate good scientific knowledge including mathematics, physics, chemistry, and biology in chemical engineering	Applying
PLO2	Apply the legal knowledge and policies of the State in chemical engineering and safety regulations.	Applying
PLO3	Use English fluently (IELTS 5.0 or equivalent), and Microsoft Office proficiently (MOS Certificate 750).	Applying
PLO4	Analyze the factors that affect the chemical engineering processes and specify the operating principles and techniques of chemical technologies.	Analyzing
PLO5	Consult the appropriate manufacturing processes in the chemical industries such as textile, cosmetics, ceramics, polymer, semiconductor, etc.	Analyzing
PLO6	Evaluate the practical issues related to chemical technology and select effective solutions in the field of chemical engineering.	Evaluating
PLO7	Operate and control successfully the equipment and processes in the areas of organic synthesis, inorganic materials, and organic materials	Evaluating
PLO8	Evaluate the chemical engineering projects and technologies from the standpoint of feasibility, economics, and sustainability.	Evaluating
PLO9	Solve effectively and innovatively the problems in production processes of chemical products.	Evaluating
PLO10	Design the manufacturing processes for particular products or implement the experimental research in the fields of organic synthesis, inorganic materials, and organic materials,	Creating
PLO11	Demonstrate the ability to work independently and effectively in a team, along with leadership skills and entrepreneurship.	Applying
PLO12	Demonstrate the responsibility, honesty, professional ethics, and life-long learning mindset.	Applying

PRESIDENT

DEAN

Dr. TRAN TRONG DAO

Dr. DO TUONG HA