

## Professional Program of Engineer (PPE)

### Introduction

Professional Program of Engineer is a program designed to benefit working professionals who seek to increase their qualifications through specialized degree and professional certificate programs. As a prerequisite, the student who wants to enter this program has to at least have 2 years of working experiences in engineering field after graduated from bachelor degree of Sarjana Teknik (ST) or at least have 5 years of working experiences in engineering from Sarjana Sains (S.Si) and Sarjana Pendidikan (S.Pd) graduates. When the students have to build strong foundations in math, physics, chemistry and engineering principals during the time of being engineering students, in this engineering professional program, the students who hold an accredited bachelor degree have to enhance their contemporary knowledge to lead and manage their improvement of professional progress in highly competitive global environment. As a new program in Faculty of Engineering, The Professional Program of Engineer is an urgent need in Indonesia to meet the number of professional engineers' requests in many field of engineering that has been going on in Indonesia. In addition, certification of the profession of engineers for Indonesian engineer is also indispensable to compete in the era of the ASEAN Economic Community (MEA), even more to compete within the global. This program provides an availability of opportunity to increase individual competence and professionalism through continuous professional development. The scope of engineering disciplines may include: Earth and energy; civil engineering and the built environment; mechanical, electrical, chemical and industrial engineering; conservation and management of natural resources; agriculture and agricultural products; forestry science, marine and shipping technology; aeronautics and astronautics.

### Vision

The most prestigious and dynamic Professional Program of Engineer in Indonesia by creating global accepted professional.

### Mission

The mission of Professional Program of Engineer is to contribute to the global community through the provision of world-class education by:

1. Offering and inviting all professional practitioners to be certified in Profession Organization and eager to continuously improve professional competencies.
2. Ensuring the engineers to comply the criteria of professional development in order to maintain their professional competencies.
3. Enforcing the laws, regulation, and standard that regulate engineering practice, or the use of Engineer Profession title, in fair and consistent way.

### Program Objective

The objectives of the program are:

1. To prepare students with solid technical skills and conceptual knowledge of engineering.
2. To prepare students with engineering knowledge to succeed in an engineering career.
3. To equip students with information technology knowledge that is in demand by the engineering practice.

**Student Outcomes**

After completing the study, graduates are:

1. Able to conduct engineering planning by using resource and conduct evaluation of engineering practice comprehensively through science and technology implementation;
2. Able to solve engineering problem through single and multidisciplinary approach;
3. Able to conduct research and make engineering decision based on engineering profession code of conduct and standard in strategic and accountable;
4. Able to implement the use of the engineering tools appropriately and effective technologies to provide added value in engineering practices.

**Prospective Career of the Graduates**

Due to the broad field of professions involving engineering in its implementation, the following is the areas of the profession field where the candidates are being work for, are eligible for PPE registration, but not limited to:

1. Higher Education and technical training
2. Research, development, assessment
3. Consultant and construction
4. Industrial management, manufacturing and processing
5. Mining and Minerals
6. Natural / biological resources
7. Assets management operation

**Curriculum**

Professional program of engineer is about how to apply and implement ‘body of knowledge’ of engineering in an everyday real practice as a profession. The term of profession itself should of course meet certain professional skills to develop ways to utilize economically the materials and experience requirements for the benefit of humankind added to his academic education. The curriculum of professional program of engineer is structured based on professional practice point of view. Through this program, the student should master the knowledge of engineering practices and has experienced the code of conduct and ethics of engineer profession, professionalism, Occupational Safety and Health Management, seminar, engineering case study and more emphasized on engineering practice.

**Course Structure**

Sem	Code	Course Name	SCU	Total
1	ENGR7084	Code of Conduct and Ethics of Engineer Profession	2	8
	ENGR7085	Professionalism	2	
	ENGR7086	Occupational Safety and Health Management	2	
	ENGR7089	Seminar	2	
2	ENGR7087	Engineering Practice	12	16
	ENGR7088	Engineering Case Study	4	
<b>TOTAL CREDIT 24 SCU</b>				