

# PONTIFICIA UNIVERSIDAD CATÓLICA DE CHILE College of Engineering

### **Major in Chemical Engineering**

## I. Program Educational Objectives:

Students graduating from the program obtain the Bachelor of Science in Engineering, with Major in Chemical Engineering.

The Program Educational Objectives for the Major in Chemical Engineering (B. Sc. Eng.) are the following:

- 1. Mastery of the principles of science and engineering that underlie modern chemical and bioprocess technologies.
- 2. Application of this mastery to the solution of problems in a broad range of career paths, with highest standards of ethical practice.
- 3. Appreciation of environmental, social, safety and economic issues that affect their decisions.
- 4. Ability to communicate effectively, both orally and in writing, and to work in teams.
- 5. Commitment to continued self-improvement and engagement in lifelong learning.

PEOs approved by all constituents of the ChE Program. Final promulgation by ChE Program Committee on 2021.

#### II. Student Outcomes:

- 1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
- 2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
- 3. An ability to communicate effectively with a range of audiences.
- 4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
- 5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
- 6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.



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7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

#### III. Student Admissions:

Students are initially admitted to a common study program that is the same for any engineering area. As student progress in time, programs differentiate according the engineering area.

Student Admission*								
Year	N° Students							
2011	543							
2012	553							
2013	716							
2014	732							
2015	719							
2016	726							
2017	732							
2018	740							
2019	772							
2020	808							
2021	827							
2022	832							

<sup>\*</sup>Regular Admission (PSU) and Special Admission (PSU Process).

## IV. Program enrollment and degree data:

ACADEMIC	ENROLLMENT YEAR					UNDERGRAD PER COHORT					TOTAL	
YEAR	1st(a)	2nd(b)	3rd	4th	5th+	2013	2014	2015	2016	2017	2018	UNDERGRAD
2021	17	19	27	29	42	0	4	3	3	12		22
2020	19	21	31	22	36	0	2	6	5	1		14
2019	17	25	18	12	38	2	10	2				14
2018	23	14	14	20	38	5	11	3				19
2017	17	17	18	30	13	4						4
2016	17	17	29	13		1						
2015	28	27	13									
2014	20	12										
2013	11											

- (a) First-year students declare their preference for Major during the first semester 2021.
- (b) Second year students formally enroll Major during the first semester 2021.