



PONTIFICIA UNIVERSIDAD CATÓLICA DE CHILE  
College of Engineering

### **Major in Biological Engineering**

#### **I. Program Educational Objectives:**

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

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

1. Our graduates will perform competitively in Biological Engineering and related professional fields.
2. Our graduates will develop efficient solutions to global problems sustained on the integration of life sciences and quantitative engineering analyses.
3. Our graduates will be engaged in lifelong learning, and will enrich their profession with advanced degrees in engineering and related interdisciplinary professional fields.
4. Our graduates will be able to communicate efficiently, working in interdisciplinary teams, with high ethical standards.

*PEOs approved by all constituents of the BE Program.  
Final promulgation by BE 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



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6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
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

\*Regular Admission (PSU) and Special Admission (PSU Process).

**IV. Program enrollment and degree data:**

ACADEMIC YEAR	ENROLLMENT YEAR					UNDERGRAD PER COHORT						TOTAL UNDERGRAD
	1st(a)	2nd(b)	3rd	4th	5th+	2013	2014	2015	2016	2017	2018	
2021	14	38	30	21	47	1	0	2	7	7	1	18
2020	18	30	23	32	42	5	3	8	6	2		24
2019	27	23	35	22	32	3	4	2	1			10
2018	23	27	26	12	30	4	5					9
2017	29	24	14	15	17	1						1
2016	19	12	17	17								
2015	17	20	18									
2014	20	14										
2013	13											

(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.