

PONTIFICIA UNIVERSIDAD CATÓLICA DE CHILE College of Engineering

Major in Engineering in Operations Research

I. Program Educational Objectives:

Students finishing successfully the program requirements, obtain the Bachelor Science in Engineering, with Major in Engineering in Operations Research.

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

- 1. Our graduates will be able to analyze complex systems and decision-making processes in their field of employment through the lens of operations research.
- 2. Our graduates will engage in lifelong learning, seeking out technical and professional growth, paired with an equally enriched ethical consciousness.
- 3. Our graduates will advance the objectives of their organizations, profession, and society in a rapidly changing world.
- 4. Our graduates will be global collaborators, and effective communicators, participating in interdisciplinary and culturally diverse teams.

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



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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	844							
2023	811							

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

IV. Program enrollment and degree data:

ACADEMIC	ENROLLMENT YEAR*				UNDERGRAD PER COHORT						TOTAL		
YEAR	1st	2nd	3rd	4th	5th+	2013	2014	2015	2016	2017	2018	2019	UNDERGRAD**
2022	111	172	209	174	377	2	4	11	30	85	42	7	181
2021	122	200	190	182	439	1	17	34	79	78	10		219
2020	170	155	177	243	406	6	35	96	65	10			212
2019	137	170	255	213	444	42	102	67	4				215
2018	227	245	223	238	437	75	78	12					155
2017	211	181	249	269	208	60	11						71
2016	177	213	275	216		10							10
2015	174	242	215										
2014	133	211											
2013	105												

Last update April 11th, 2023.

(a) First-year students declare their preference for Major during the first semester.

(b) Second year students formally enroll Major during the first semester.