

# PONTIFICIA UNIVERSIDAD CATÓLICA DE CHILE College of Engineering

### Major in Robotics Engineering

### I. Program Educational Objectives:

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

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

- 1. Our graduates will be systems thinkers with a strong understanding of the fundamental knowledge of engineering sciences, especially of computer science, electrical engineering, mechanical engineering, software engineering and systems engineering.
- 2. Our graduates will develop practical skills that are required for the application of the fundamental knowledge.
- 3. Our graduates will apply the theoretical knowledge and practical skills to the design and implementation of robotic systems.
- 4. Our graduates will be creative and have entrepreneurial skills to respond to the evolving technological, economic and societal challenges.
- 5. Our graduates will demonstrate professional standards of responsibility, rigorousness and respect.

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



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#### 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								
2024	819								

\*Regular Admission (PAES) and Special Admission.

ACADEMIC	ENROLLMENT YEAR				UNDERGRAD PER COHORT						TOTAL			
YEAR	1st(a)	2nd(b)	3rd	4th	5th+	2013	2014	2015	2016	2017	2018	2019	2020	UNDERGRAD
2023	32	31	37	21	24	0	0	0	1	1	2	2	1	7
2022	22	32	24	25	15	0	0	1	3	2	4	1		11
2021	31	23	26	15	33	1	0	2	6	3	3			15
2020	28	22	18	12	31	1	0	2	5	1				9
2019	24	18	10	19	24	1	4	3	1					9
2018	16	11	20	10	26	4	1							5
2017	15	19	16	11	26	9	1							10
2016	30	15	11	29		2								2
2015	18	10	26											
2014	17	27												
2013	21													

# IV. Program enrollment and degree data:

Last update March 07th, 2024.

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

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