Table A0: Presentation – pag 1/5

PONTIFICIA UNIVERSIDAD CATOLICA DE VALPARAISO
CHEMICAL ENGINEERING DEGREE PROGRAM
ACADEMIC YEAR 2007
FACULTY OF ENGINEERING

First academic year held: 1928
Nominal duration: 6 years
Main offering departments:
SCHOOL OF CHEMICAL ENGINEERING

For further information concerning the degree program or to contact secretarial services, see the following websites and e-mail addresses:
- www. pucv.cl website
- www.eiq.cl website
- direiq@ucv.cl

Table A0: Presentation – pag 2/5

Historical Background

The Pontificia Universidad Católica de Valparaíso is committed to the culturing, in the light of the faith, of the sciences, the arts and the technologies, by the creation and communication of the knowledge and Catholic values to form integral graduates and professional with vocation of service to the society.

On its exercise of the Mission, the University guarantees academic freedom to its members and protects the equality of opportunities in the access to higher education for the students.
On September 21, 1925, the first stone was put on what today is recognised as one of the major and prestigious of the top Chilean higher education Institutions. Three years later, in March 1928, The Pontificia Universidad Católica de Valparaíso began its activieties.

The beginnings of our University were possible thanks to the generosity of lady Isabel Caces de Brown, and her daughters , ladies Isabel Brown de Brunet and Maria Teresa Brown de Ariztía, who headed the efforts to offer the community a higher education opportunity , a project that was of great transcendence in the history of Valparaiso.
Today the Pontificia Universidad Católica de Valparaíso is the largest University in Valparaíso and the fourth largest in the country, with over 14,000 students enrolled in 62 educational programmes offered in 8 campuses located both in Valparaíso and Viña del Mar.

In the year 1928 the University began with six programs, among which includes industrial chemistry, which would be transformed in 1937 into the current program of chemical engineering, including within the Faculty of Engineering and under the administration of the school of chemical engineering. Current school offers undergraduate programs in civil chemical engineering and civil engineering in extractive metallurgy, with an enrollment of 230 students in chemical engineering and 100 students in extractive metallurgy, plus a master programme in engineering sciences, with mention in chemical engineering.

Table A0: Presentation – pag 3/5

Presentation of the Programme

School of Chemical Engineering offers 2 academic programs, civil chemical engineering and civil engineering in extractive metallurgy both of 6 years' duration, with a total enrollment of 317 students and an average annual income of 78 students.
In Chile there are two different types on Engineering programmes which are divided into Technological fundaments, lasting four or five years and those of Scientific fundaments (Chemical Civil Engineers) lasting six years. The latter, provide students with the Bachelors Degree and the Professional title which enable them to reach the top hierarchy in the engineering professional context and, consequently, obtain the best economic compensations for their jobs. Furthermore, the six year Engineer is able to continue studies to get Masters and PhD graduate degrees.
The Chemical Engineer from the Pontificia Universidad Católica de Valparaíso (PUCV), is a person with ample knowledge of mathematics, chemistry, physics, engineering science, principles and methods of analysis and engineering design. The knowledge has been adquired through education and experience. The Chemical Engineer from PUCV is qualified to identify and solve problems of engineering in process industries, involving mass and energy transformations.
In addition, his capacity of auto learning, sustained in a solid trainning, allows him to work in a broad type of companies related to his discipline.
The Chemical Engineer is able to perform wide and diverse works; he develops, designs, administrates (plans, organizes, controls, manages) different industrial processes. He performs research and he studies technical and economical alternatives for processes and equipments. He is able to asign and manage human resources in charge and assume executive responsabilities.
The Chemical Engineer will develope all the activities with special attention in safety and welfare for his personnel in charge, as well as, the conservation and protection of environment and equipment of the process.
His professional work must be framed by ethical principles of the institution and his profession.
The development of the mining industry in our country and the program in metallurgy engineering of our school, allow our graduates being enabled to perform in the field of mineral processing, based on the several optional courses and research development in this area.
The programme was accredited for three years and is currently under accreditation process by National Accreditation Commission, CNA. http://www.cnachile.cl/acreditacion/resultados.html

Program	Duration (semesters)	Income	Nº Students 2008	Nº Graduates
Civil Chemical Engineering	12	50	209	18
Civil Engineering in Extractive Metallurgy	12	28	98	2

Table A0: Presentation – pag 4/5

The ***stakeholders*** who provide professional outlets for programme graduates chiefly consist of the main industries in the Valparaiso Region, and representatives of the alumni of the of School of Chemical Engineering.
The university's representatives who interact with these stakeholders or who apply input from these interactions to educational programs are detailed in Table A1: Interactions with external stakeholders together with the documentary evidence for their past and current work.

The ***Competencies*** that programme graduates will need to fill their professional roles and the functions exercised in those roles are summarized in Table A2. External requirements.
The function of the Chemical Engineer is able to carry out is very ample and diverse; develops, designs, administers (plans, organizes, controls, optimizes) the different industrial processes. It realises activities of Investigation and it studies alternatives of processes and equipment that is technical and economically feasible. The chemical engineering graduate can be employed in any company that involve mass and energy transformation. For example: Chemical, Metallurgical, Food, Petrochemical industries.

Course content thus ensures in the chemical engineering graduate a solid mathematical, chemical and physical grounding knowledge, together with the knowledge engineering sciences can provide the skills and understanding for engineering design and management. The structure contents is the detailed in:

Table A3 – Intended learning outcomes and associated course work
The educational program considers a total of 12 semesters where the 4 first contain the courses of basic sciences, the 4 intervals mainly contain courses of engineering sciences leaving to last the 4 with knowledge of administration, engineering and projects.
Table B2 – Curricular content

For admission to a degree programme at the Pontifical Catholic University of Valparaiso, prospective students must take the National University selection Examination (PSU) plus a specific test of mathematics and science knowledge.
Other way is the especial system of admission, design for students who have especial conditions as prominent sportsman, foreign, professional whit academic degree, comes for another university program, and others.
(Table B1a. Entry qualifications) shows the admission system for the program and Table B1b – Entry qualifications (for orientation) lists the topics with which the student must be familiar in order to pass entrance examinations.

Class schedules established by the Chemical Engineering are posted on the Chemical Engineering intranet system. Courses are organized for semester and seven session per day Monday through Friday. Table B3 – Contact hours

Table A0: Presentation – pag 5/5

The activities of the chemical engineering program are realised in the dependencies of the engineering faculty, Av. Brasil 2241, Valparaiso as much in classrooms, laboratories, libraries and spaces of study.
Table C1: Material resources and equipment

The program head realises every semester and every year the statistical analysis of the academic behavior of the students with respect to admission, advance and graduation. Furthermore have a on suitable computer tools for the control and monitoring of the academic advance.
Table D1 – Student enrollment and progression data. Resume the statistical information of the academic behavior.
Table D3 – Degree program analysis, monitoring and review provides an overview of the procedures used to analyze, monitor and review the degree program, and indicates responsibilities for these activities, the timelines involved, reference documents and details of document availability.

The student have the opportunity to take exchange program with different institutions in America, Europe and Asia. And have the opportunity carry out practical training and final projects in companies and institutions, and often leads to first employment.
This information is resume in: Table D2 – Further information