First semester

Mandatory

Code	Course	Credits	Group	Subject	Approval	Type of course / Free quality	Institute	Course pre-requisites		Exam pre-requisites		Semester	Course program	Link to EVA
								Courses	Exams	Courses	Exams			
1061	DIFFERENTIAL AND INTEGRAL CALCULUS IN ONE VARIABLE	13	Basic Courses and Basic - Technological	Mathematics	Exam	With total exam exemption / Free quality	Mathematics and Statistics	None	None	None	None	Even/odd	Course program	Link to EVA
1030	GEOMETRY AND LINEAR ALGEBRA 1	9	Basic Courses and Basic - Technological	Mathematics	Exam	With total exam exemption / Free quality	Mathematics and Statistics	None	None	None	None	Even/odd	Course program	Link to EVA
1151	PHYSICS 1	10	Basic Courses and Basic - Technological	Physics	Exam	With total exam exemption / Free quality	Physics	None	None	None	None	Even/odd	Course program	Link to EVA
1266	WORKSHOP: GRAPHIC REPRESENTATION AND COMMUNICATION - MODULE A	4	Integrating Activities	Workshops	Course	Regulation without exam exemption	Engineer's Social Integration Department	None	None	Not applicable		Even/odd	Course program	Link to EVA
1269	WORKSHOP: GRAPHIC REPRESENTATION AND COMMUNICATION - MODULE B	4	Integrating Activities	Workshops	Course	Regulation without exam exemption	Engineer's Social Integration Department	•Workshop: Graphic representation and communication - MODULE A	None	Not applicable		Even/odd	Course program	Link to EVA

Electives

Code	Course	Credits	Group	Subject	Approval	Type of course / Free quality	Institute	Course pre-requisites		Exam pre-requisites		Semester	Course program	Link to EVA
								Courses	Exams	Courses	Exams			
MI	INITIAL MATHEMATICS (*)	4	Basic Courses and Basic - Technological	Mathematics	Exam	With total exam exemption	Mathematics and Statistics	None	None	None	None	Even/odd	Course program	Link to EVA

* The curricular unit "Initial mathematics" can be a pre-requisite for the curricular unit "Differential and integral calculus in one variable", for more information consult Bedelías.

Second semester

Mandatory

Code	Course	Credits	Group	Subject	Approval	Type of course / Free quality	Institute	Course pre-requisites		Exam pre-requisites		Semester	Course program	Link to EVA
								Courses	Exams	Courses	Exams			
1062	DIFFERENTIAL AND INTEGRAL CALCULUS IN SEVERAL VARIABLES	13	Basic Courses and Basic - Technological	Mathematics	Exam	With total exam exemption / Free quality	Mathematics and Statistics	•Differential and integral calculus in one variable	None	None	•Differential and integral calculus in one variable	Even/odd	Course program	Link to EVA
1031	GEOMETRY AND LINEAR ALGEBRA 2	9	Basic Courses and Basic - Technological	Mathematics	Exam	With total exam exemption / Free quality	Mathematics and Statistics	•Geometry and linear algebra 1	None	None	•Geometry and linear algebra 1	Even/odd	Course program	Link to EVA
1152	PHYSICS 2	10	Basic Courses and Basic - Technological	Physics	Exam	With total exam exemption / Free quality	Physics	•Differential and integral calculus in one variable •Physics 1	None	None	•Differential and integral calculus in one variable •Physics 1	Even/odd	Course program	Link to EVA
2416	INTRODUCTION TO PRODUCTION ENGINEERING (*)	3	Specific for Production Engineering	Operations	Course	Regulation without exam exemption	Mechanical Engineering and Industrial Production / Computing / Chemical Engineering	None	None	Not applicable		Even/odd	Course program	Link to EVA
1322	PROGRAMMING 1	10	Basic Courses and Basic - Technological	Computing	Exam	With total exam exemption	Computing	None	None	•Programming 1	None	Even/odd	Course program	Link to EVA

Electives

Code	Course	Credits	Group	Subject	Approval	Type of course / Free quality	Institute	Course pre-requisites		Exam pre-requisites		Semester	Course program	Link to EVA
								Courses	Exams	Courses	Exams			
1268	INTORODUCTION TO R PROGRAMMING FOR ENGINEERING	3	Engineering and Industrial Technologies	Computer Engineering	Course	Regulation without exam exemption	Teaching unit	•Geometry and linear algebra 1	None	Not applicable		Even	Course program	Link to EVA

* Does not apply to 2020 generation and earlier.

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Third semester

Mandatory

Code	Course	Credits	Group	Subject	Approval	Type of course / Free quality	Institute	Course pre-requisites Courses	Course pre-requisites Exams	Exam pre-requisites Courses	Exam pre-requisites Exams	Semester	Course program	Link to EVA
1025	PROBABILITY AND STATISTICS	10	Basic Courses and Basic - Technological	Mathematics	Exam	With total exam exemption / Free quality	Mathematics and Statistics	•Differential and integral calculus in several variable	•Differential and integral calculus in one variable •Geometry and linear algebra 1	•Differential and integral calculus in several variable	•Differential and integral calculus in one variable •Geometry and linear algebra 1	Even/odd	Course program	Link to EVA
1122	NEWTONIAN MECHANICS	10	Basic Courses and Basic - Technological	Physics	Exam	With total exam exemption / Free quality	Physics	•Physics 2/Physics 3	•Differential and integral calculus in one variable •Geometry and linear algebra 1 •Physics 1	•Physics 2/Physics 3	•Differential and integral calculus in one variable •Geometry and linear algebra 1 •Physics 1	Odd	Course program	Link to EVA
1154	EXPERIMENTAL PHYSICS 1	5	Basic Courses and Basic - Technological	Physics	Course	Regulation without exam exemption	Physics	•Physics 2	•Physics 1	Not applicable		Odd	Course program	Link to EVA
1620	GENERAL CHEMISTRY FOR ENGINEERS	8	Basic Courses and Basic - Technological	Chemistry	Exam	With total exam exemption / Free quality	Chemistry School	None	None	None	None	Odd	Course program	Link to EVA
1223	SCIENCE, TECHNOLOGY AND SOCIETY	8	Specific for Production Engineering	Business Environment	Exam	Free quality	Engineer's Social Integration Department	Not applicable		None	None	Odd	Course program	Link to EVA

Electives

Code	Course	Credits	Group	Subject	Approval	Type of course / Free quality	Institute	Course pre-requisites Courses	Course pre-requisites Exams	Exam pre-requisites Courses	Exam pre-requisites Exams	Semester	Course program	Link to EVA
1321	PROGRAMMING 2	12	Basic Courses and Basic - Technological	Computing	Exam	With total exam exemption	Computing	•Programming 1	None	•Programming 2	None	Odd	Course program	Link to EVA
1063	VECTORIAL CALCULUS (*)	10	Basic Courses and Basic - Technological	Mathematics	Exam	With total exam exemption / Free quality	Mathematics and Statistics	•Differential and integral calculus in several variable	•Differential and integral calculus in one variable •Geometry and linear algebra 1	•Differential and integral calculus in several variable	•Differential and integral calculus in one variable •Geometry and linear algebra 1	Even/odd	Course program	Link to EVA

* The curricular unit "Vectorial calculus" can be a pre-requisite of a MANDATORY curricular unit, for more information consult Bedelias.

Fourth semester

Mandatory

Code	Course	Credits	Group	Subject	Approval	Type of course / Free quality	Institute	Course pre-requisites Courses	Course pre-requisites Exams	Exam pre-requisites Courses	Exam pre-requisites Exams	Semester	Course program	Link to EVA
1153	PHYSICS 3	10	Basic Courses and Basic - Technological	Physics	Exam	With total exam exemption / Free quality	Physics	See in: bedelias.udelar.edu.uy		None	•Differential and integral calculus in one variable •Physics 1	Even/odd	Course program	Link to EVA
1123	THERMAL PHYSICS	10	Basic Courses and Basic - Technological	Physics	Exam	With total exam exemption / Free quality	Physics	•Physics 2/Physics 3	•Differential and integral calculus in one variable •Physics 1	•Physics 2/Physics 3	•Differential and integral calculus in one variable •Physics 1	Even	Course program	Link to EVA
1510	QUALITY CONTROL	8	Specific for Production Engineering	Operations	Exam	With total exam exemption / Free quality	Mechanical Engineering and Industrial Production	•80 credits •Probability and statistics	None	•80 credits •Probability and statistics	None	Even	Course program	Link to EVA
1922	COSTS FOR ENGINEERING	8	Specific for Production Engineering	General Administration	Exam	With total exam exemption / Free quality	Mechanical Engineering and Industrial Production	•130 credits		•130 credits		Even	Course program	Link to EVA
2033	WORKSHOP 2: QUANTITATIVE MODELING FOR PRODUCTION PROBLEMS	5	Integrating Activities	Workshops	Course	Regulation without exam exemption	Computing	• Introduction to production engineering •Probability and statistics	•Differential and integral calculus in one variable •Geometry and linear algebra 1 •Differential and integral calculus in several variable •Geometry and linear algebra 2	Not applicable		Even	Course program	Link to EVA
1033	NUMERICAL METHODS	8	Basic Courses and Basic - Technological	Computing	Exam	With total exam exemption	Mathematics and Statistics	None	•Differential and integral calculus in one variable •Geometry and linear algebra 1 •Differential and integral calculus in several variable •Geometry and linear algebra 2 •Programming 1	•Numerical methods	None	Even	Course program	Link to EVA

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Fifth semester

Mandatory

Code	Course	Credits	Group	Subject	Approval	Type of course / Free quality	Institute	Course pre-requisites		Exam pre-requisites		Semester	Course program	Link to EVA
								Courses	Exams	Courses	Exams			
1610	INTRODUCTION TO OPERATIONS RESEARCH	10	Specific for Production Engineering	Operations	Exam	With total exam exemption	Computing	None	•Differential and integral calculus in one variable •Geometry and linear algebra 1 •Differential and integral calculus in several variable •Geometry and linear algebra 2 •Probability and statistics	•Introduction to operations research	None	Odd	Course program	Link to EVA
1954	QUALITY MANAGEMENT	7	Specific for Production Engineering	General Administration	Exam	With total exam exemption	Mechanical Engineering and Industrial Production	•130 credits •Quality control	None	•Quality management	None	Odd	Course program	Link to EVA
1764	MECHANICAL BEHAVIOUR OF MATERIALS 1	13	Engineering and Industrial Technologies	Mechanical Engineering	Exam	With total exam exemption / Free quality	Mechanical Engineering and Industrial Production	•30 credits in Mathematics •25 credits in Physics	None	•30 credits in Mathematics •25 credits in Physics	None	Odd	Course program	Link to EVA
1723	INTRODUCTION TO MATERIAL'S SCIENCE	12	Basic Courses and Basic - Technological	Chemistry	Exam	With total exam exemption	Materials Testing	•60 credits	•Differential and integral calculus in one variable •Geometry and linear algebra 1 •Physics 1	•Introduction to material's science	None	Odd	Course program	Link to EVA

Electives

Code	Course	Credits	Group	Subject	Approval	Type of course / Free quality	Institute	Course pre-requisites		Exam pre-requisites		Semester	Course program	Link to EVA
								Courses	Exams	Courses	Exams			
1788	FUNDAMENTALS OF INDUSTRIAL ROBOTICS	8	Specific for Production Engineering	Operations	Exam	With total exam exemption	Mechanical Engineering and Industrial Production	•Physics 1 •Programming 1	•Differential and integral calculus in several variable •Geometry and linear algebra 2 •Newtonian Mechanics	•Fundamentals of industrial robotics	None	Odd	Course program	Link to EVA
1871	FUNDAMENTALS OF OPTIMIZATION (*)	6	Basic Courses and Basic - Technological	Mathematics	Course	Regulation without exam exemption	Mathematics and Statistics	None	•Differential and integral calculus in several variable •Geometry and linear algebra 2 •Programming 1	Not applicable		Odd	Course program	Link to EVA
1944	GENERAL ADMINISTRATION FOR ENGINEERS	5	Specific for Production Engineering	General Administration	Exam	With total exam exemption	Engineer's Social Integration Department	•140 credits		•140 credits		Odd	Course program	Link to EVA

Sixth semester

Mandatory

Code	Course	Credits	Group	Subject	Approval	Type of course / Free quality	Institute	Course pre-requisites		Exam pre-requisites		Semester	Course program	Link to EVA
								Courses	Exams	Courses	Exams			
2038	TIMES AND METHODS	8	Specific for Production Engineering	Operations	Exam	With total exam exemption	Mechanical Engineering and Industrial Production	•135 credits		•Times and methods	None	Even	Course program	Link to EVA
2401	LEGISLATION AND INDUSTRIAL RELATIONS	6	Specific for Production Engineering	Business Environment	Exam	Free quality	Engineer's Social Integration Department	Not applicable		•135 credits		Even	Course program	Link to EVA
1224	ECONOMY	7	Specific for Production Engineering	Business Environment	Exam	With total exam exemption / Free quality	Engineer's Social Integration Department	Does not have	None	None	None	Even	Course program	Link to EVA
Q59B	INTRODUCTION TO PROCESS ENGINEERING	5	Engineering and Industrial Technologies	Chemical Engineering	Exam	With total exam exemption	Chemical Engineering	•Physics 1	•Differential and integral calculus in one variable •General chemistry for engineers	•Introduction to process engineering	None	Even	Course program	Link to EVA
2037	PRODUCTION PROBLEMS OPTIMIZATION	5	Integrating Activities	Workshops	Course	Regulation without exam exemption	Computing	•Introduction to operations research •Workshop 2: Quantitative modeling for production problems	Does not have	Not applicable		Even	Course program	Link to EVA
1064	INTRODUCTION TO DIFFERENTIAL EQUATIONS	10	Basic Courses and Basic - Technological	Mathematics	Exam	With total exam exemption / Free quality	Mathematics and Statistics	•Differential and integral calculus in several variable	•Differential and integral calculus in one variable •Geometry and linear algebra 1 •Geometry and linear algebra 2	None	•Differential and integral calculus in one variable •Geometry and linear algebra 1 •Differential and integral calculus in several variable •Geometry and linear algebra 2	Even	Course program	Link to EVA

Electives

Code	Course	Credits	Group	Subject	Approval	Type of course / Free quality	Institute	Course pre-requisites		Exam pre-requisites		Semester	Course program	Link to EVA
								Courses	Exams	Courses	Exams			
1129	OPTICS (**)	10	Basic Courses and Basic - Technological	Physics	Exam	With total exam exemption / Free quality	Physics	None	None	None	•Physics 3 •Vectorial calculus	Even	Course program	Link to EVA
1023	DISCRETE MATHEMATICS 1	9	Basic Courses and Basic - Technological	Mathematics	Exam	With total exam exemption / Free quality	Mathematics and Statistics	None	None	None	None	Even/odd	Course program	Link to EVA
1945	MANAGEMENT PRACTICE FOR ENGINEERS	5	Specific for Production Engineering	General Administration	Exam	With total exam exemption / Free quality	Engineer's Social Integration Department	•General administration for engineers	None	None	•General administration for engineers	Even	Course program	Link to EVA

* The curricular unit "Fundamentals of optimization" might not be taught every year. Please contact the professors.
** The curricular unit "Optics" is taught on a bi-annual basis. Please contact the professors.

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Seventh semester

Mandatory

Code	Course	Credits	Group	Subject	Approval	Type of course / Free quality	Institute	Course pre-requisites		Exam pre-requisites		Semester	Course program	Link to EVA
								Courses	Exams	Courses	Exams			
1915	OPERATIONS MANAGEMENT	8	Specific for Production Engineering	General Administration	Exam	With total exam exemption	Mechanical Engineering and Industrial Production	None	•Costs for engineering	•Operations management	None	Odd	Course program	Link to EVA
2108	ELECTROTECHNICAL I	9	Engineering and Industrial Technologies	Electrical Engineering	Exam	With total exam exemption / Free quality	Electrical Engineering	None	•Differential and integral calculus in several variable •Physics 3	•Differential and integral calculus in several variable	•Physics 3	Odd	Course program	Link to EVA
2244	LOGISTICS MANAGEMENT ELEMENTS	8	Specific for Production Engineering	Operations	Exam	With total exam exemption	Mechanical Engineering and Industrial Production	•180 credits		•Logistics management elements	None	Odd	Course program	Link to EVA
1539	HUMAN RESOURCES MANAGEMENT IN THE PRODUCTION OF GOODS AND SERVICES	8	Specific for Production Engineering	General Administration	Exam	With total exam exemption	Mechanical Engineering and Industrial Production	•200 credits		•HR management in the production of goods and services	None	Odd	Course program	Link to EVA
Q22	TRANSPORT PHENOMENA IN PROCESS ENGINEERING	14	Engineering and Industrial Technologies	Chemical Engineering	Exam	With total exam exemption	Chemical Engineering	None	•General chemistry for engineers •Thermal physics •Newtonian mechanics	•Transport Phenomena in Process Engineering	None	Odd	Course program	Link to EVA

Electives

Code	Course	Credits	Group	Subject	Approval	Type of course / Free quality	Institute	Course pre-requisites		Exam pre-requisites		Semester	Course program	Link to EVA
								Courses	Exams	Courses	Exams			
1805	ELEMENTS OF FLUID'S MECHANICS	14	Basic Courses and Basic - Technological	Others	Exam	With total exam exemption	Fluid Mechanics and Environmental Engineering	None	•Newtonian mechanics •Vectorial calculus	•Elements of fluid's mechanics	None	Odd	Course program	Link to EVA

Eighth semester

Mandatory

Code	Course	Credits	Group	Subject	Approval	Type of course / Free quality	Institute	Course pre-requisites		Exam pre-requisites		Semester	Course program	Link to EVA
								Courses	Exams	Courses	Exams			
Q66	FLUID-DYNAMICS	14	Engineering and Industrial Technologies	Chemical Engineering	Exam	With total exam exemption	Chemical Engineering	•Transport phenomena in process engineering •Thermal physics	•Introduction to process engineering •Physics 3	•Fluid-dynamics	None	Even	Course program	Link to EVA
2256	ELEMENTS OF ENVIRONMENTAL ENGINEERING	7	Engineering and Industrial Technologies	Environmental Engineering	Exam	With total exam exemption / Free quality	Fluid Mechanics and Environmental Engineering	•100 credits	•General chemistry for engineers	•100 credits	•General chemistry for engineers	Even	Course program	Link to EVA
2035	WORKSHOP 4: IMPROVING COMPETITIVENESS	5	Integrating Activities	Workshops	Course	Regulation without exam exemption	Mechanical Engineering and Industrial Production	None	•Quality management	Not applicable		Even	Course program	Link to EVA
2039	ECONOMIC AND FINANCIAL EVALUATION OF INVESTMENT PROJECTS	4	Specific for Production Engineering	Operations	Course	Regulation without exam exemption	Mechanical Engineering and Industrial Production	•133 credits		Not applicable		Even	Course program	Link to EVA

Electives

Code	Course	Credits	Group	Subject	Approval	Type of course / Free quality	Institute	Course pre-requisites		Exam pre-requisites		Semester	Course program	Link to EVA
								Courses	Exams	Courses	Exams			
1877	REFORMULATIONS AND ALGORITHMS FOR PRODUCTION PLANNING	10	Specific for Production Engineering	Operations	Course	Regulation without exam exemption	Computing	None	•Introduction to operations research •Programming 1	Not applicable		Even	Course program	To be published
Q74	DISCRETE EVENT SIMULATION	10	Engineering and Industrial Technologies	Operations	Course	Regulation without exam exemption	Computing	•Optimization of Production Problems	•Optimization of Production Problems •Probability and Statistics •Programming 1 •Introduction to Operations Research	Not applicable		Even	Course program	Link to EVA

Ninth semester

Mandatory

Code	Course	Credits	Group	Subject	Approval	Type of course / Free quality	Institute	Course pre-requisites: Courses	Course pre-requisites: Exams	Exam pre-requisites: Courses	Exam pre-requisites: Exams	Semester	Course program	Link to EVA
Q16	INTRODUCTION TO THE PREVENTION OF OCCUPATIONAL HAZARDS	6	Specific for Production Engineering	Operations	Exam	With total exam exemption	Chemical Engineering	•270 credits		•Introduction to the prevention of occupational hazards	None	Odd	Course program	Link to EVA
2098	INTERNSHIP	8	Integrating Activities	Internship	Course	Regulation without exam exemption	Mechanical Engineering and Industrial Production	•315 credits		Not applicable		Odd	Course program	Link to EVA
2099	PROJECT (*)	10	Integrating Activities	Project	Exam	Regulation without exam exemption	Mechanical Engineering and Industrial Production	None	• 340 credits •Optimization of Production Problems •Workshop 4: Improving competitiveness •Introduction to Operations Research •Operations management •Logistics management elements •Times and methods •Economic and financial evaluation of investments	•Project	None	Odd	Course program	Link to EVA
3334	FUNDAMENTALS OF SOFTWARE ENGINEERING	8	Engineering and Industrial Technologies	Computer Engineering	Course	With total exam exemption	Computing	•270 credits		Not applicable		Odd	Course program	Link to EVA

Electives

Code	Course	Credits	Group	Subject	Approval	Type of course / Free quality	Institute	Course pre-requisites: Courses	Course pre-requisites: Exams	Exam pre-requisites: Courses	Exam pre-requisites: Exams	Semester	Course program	Link to EVA
Q94	DYNAMICS AND PROCESS CONTROL	10	Engineering and Industrial Technologies	Chemical Engineering	Course	Regulation without exam exemption	Chemical Engineering	None	•Introduction to process engineering •Transport phenomena in process engineering •Numerical methods	Not applicable		Odd	Course program	Link to EVA
1631	INTEGER PROGRAMMING BASICS (**)	8	Specific for Production Engineering	Operations	Course	Regulation without exam exemption	Computing	None	•Introduction to operations research	Not applicable		Odd	Course program	Link to EVA
1632	OPTIMIZATION UNDER UNCERTAINTY (**)	8	Specific for Production Engineering	Operations	Course	Regulation without exam exemption	Computing	None	•Introduction to operations research	Not applicable		Odd	Course program	Link to EVA
2706	INDUSTRIAL INSTRUMENTATION	8	Engineering and Industrial Technologies	Mechanical Engineering	Exam	With total exam exemption	Mechanical Engineering and Industrial Production	•Mechanical behaviour of materials 1	•Thermal physics •Transport phenomena in process engineering •Electrotechnical I	•Mechanical behaviour of materials 1	•Thermal physics •Transport phenomena in process engineering •Electrotechnical I	Odd	Course program	Link to EVA
1920	MAINTENANCE MANAGEMENT	8	Specific for Production Engineering	Operations	Exam	Regulation without exam exemption	Mechanical Engineering and Industrial Production	None	•General administration for engineers •Management practice for engineers	•Maintenance management	None	Odd	Course program	Link to EVA
2391	STRATEGIC PLANNING AND COMPETITIVE STRATEGY	6	Specific for Production Engineering	Business Environment	Course	Regulation without exam exemption	Mechanical Engineering and Industrial Production	None	•Operations management •Logistics management elements •HR management in the production of	•Strategic planning and competitive strategy	None	Odd	Course program	Link to EVA

* The curricular unit "Project" is annual, corresponding 10 credits to the ninth semester and 20 credits to the tenth semester
** The curricular units "Integer programming basics" and "Optimization under uncertainty" are not taught simultaneously (check)

Tenth semester

Mandatory

Code	Course	Credits	Group	Subject	Approval	Type of course / Free quality	Institute	Course pre-requisites: Courses	Course pre-requisites: Exams	Exam pre-requisites: Courses	Exam pre-requisites: Exams	Semester	Course program	Link to EVA
2099	PROJECT (*)	20	Integrating Activities	Project	Exam	Regulation without exam exemption	Mechanical Engineering and Industrial Production	None	• 340 credits •Optimization of Production Problems •Workshop 4: Improving competitiveness •Introduction to Operations Research •Operations management •Logistics management elements •Times and methods •Economic and financial evaluation of investments	•Project	None	Even	Course program	Link to EVA

Electives

Code	Course	Credits	Group	Subject	Approval	Type of course / Free quality	Institute	Course pre-requisites: Courses	Course pre-requisites: Exams	Exam pre-requisites: Courses	Exam pre-requisites: Exams	Semester	Course program	Link to EVA
1777	SOFTWARE ENGINEERING PROFESSION	6	Engineering and Industrial Technologies	Computer Engineering	Course	Regulation without exam exemption	Computing	•270 credits		Not applicable		Even	Course program	Link to EVA
1779	OPERATIONS RESEARCH AND RISK MANAGEMENT	6	Specific for Production Engineering	Operations	Course	Regulation without exam exemption	Computing	None	•Introduction to operations research	Not applicable		Even	Course program	Link to EVA
1633	THEORY, ALGORITHMS AND APPLICATIONS FOR LOGISTICS MANAGEMENT	8	Specific for Production Engineering	Operations	Course	Regulation without exam exemption	Computing	None	•Introduction to operations research •Production problems optimization/Integer programming	Not applicable		Even	Course program	Link to EVA

* The curricular unit "Project" is annual, corresponding 10 credits to the ninth semester and 20 credits to the tenth semester

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Other courses

Electives

Code	Course	Credits	Group	Subject	Approval	Type of course / Free quality	Institute	Course pre-requisites		Exam pre-requisites		Semester	Course program	Link to EVA
								Courses	Exams	Courses	Exams			
1026	DISCRETE MATHEMATICS 2	9	Basic Courses and Basic - Technological	Mathematics	Exam	With total exam exemption / Free quality	Mathematics and Statistics	•Discrete mathematics 1 •Geometry and linear algebra 1		•Discrete mathematics 2		Even/odd	Course program	Link to EVA
1036	COMPLEX VARIABLE FUNCTIONS	5	Basic Courses and Basic - Technological	Mathematics	Exam	With total exam exemption / Free quality	Mathematics and Statistics	•Vectorial calculus	None	•Vectorial calculus	•Differential and integral calculus in several variable	Odd	Course program	Link to EVA
1155	EXPERIMENTAL PHYSICS 2	5	Basic Courses and Basic - Technological	Physics	Course	Regulation without exam exemption	Physics	•Experimental physics 1 •Physics 3	None	Not applicable		Even	Course program	Link to EVA
2032	EXTENSION MODULE - MECHANICAL ENGINEERING	3	Specific for Production Engineering	Operations	Course	Regulation without exam exemption	Mechanical Engineering and Industrial Production	None	None	Not applicable		Even/odd	Course program	Link to EVA
1216	WORKSHOP "ENCARARÉ": CREATE	8	Specific for Production Engineering	Operations	Course	Regulation without exam exemption	Electrical Engineering	•70 credits in Mathematics •7 credits in Business environment		Not applicable		Even	Course program	Link to EVA
2398	DECOMPOSITION TECHNIQUES IN MATHEMATICAL PROGRAMMING	4	Specific for Production Engineering	Operations	Course	Regulation without exam exemption	Computing	•Production problems optimization	None	Not applicable		Even (check)	Course program	Link to EVA
1951	WORKSHOP: TOOLS FOR INNOVATION	4	Specific for Production Engineering	Operations	Course	Regulation without exam exemption	Surveying	None	None	None	None	Even	Course program	Link to EVA
2216	PEER TUTORING 1	4	Integrating Activities	Workshops	Course	Regulation without exam exemption	Progresa - CSE - UDELAR	None	None	Not applicable		Odd	Course program	Link to website
2217	PEER TUTORING 2	4	Integrating Activities	Workshops	Course	Regulation without exam exemption	Progresa - CSE - UDELAR	None	None	Not applicable		Even	Course program	Link to website
2040	INTRODUCTION TO AUDIOVISUAL AND MULTIMEDIA PRODUCTION	6	Integrating Activities	Workshops	Course	Regulation without exam exemption	Computing	None	None	Not applicable		Even/odd	Course program	Link to EVA
3207	TOOLS FOR THE DESIGN AND ANALYSIS OF URBAN PASSENGER TRANSPORT NETWORKS	8	Specific for Production Engineering	Operations	Course	Regulation without exam exemption	Computing	•Production problems optimization	•Introduction to operations research •Programming 1	Not applicable		Even	Course program	Link to EVA
2413	INTRODUCTION TO DATA BASES (*)	8	Engineering and Industrial Technologies	Computer Engineering	Course	Regulation without exam exemption	Computing	•270 credits		Not applicable		Even	Course program	Link to EVA
To be published	SOLIDARITY APPLICATIONS BASED ON CONTENT MANAGEMENT SYSTEMS	4	Engineering and Industrial Technologies	Computer Engineering	Course	Regulation without exam exemption	Computing / Chemical Engineering	Consult teachers		Not applicable		Even	Course program	Link to EVA
Q74	HEAT AND MASS TRANSFER 1	14	Engineering and Industrial Technologies	Chemical Engineering	Exam	With total exam exemption	Chemical Engineering	•Introduction to process engineering •Transport phenomena in process engineering	•Physics 3	•Heat and mass transfer 1	None	Even	Course program	Link to EVA
2315	INTRODUCTION TO SANITARY ENGINEERING	6	Engineering and Industrial Technologies	Environmental Engineering	Exam	With total exam exemption / Free quality	Fluid Mechanics and Environmental Engineering	None	•General chemistry for engineers •Fluid-dynamics	•Introduction to sanitary engineering	None	Even	Course program	Link to EVA
816EU	SCIENTIFIC ENGLISH	4	Integrating Activities	Workshops	Course	Regulation without exam exemption	Udelar Movility program	None	None	Not applicable		Even/odd (check)	Course program	Link to EVA
RETEM	KNOWLEDGE OF THE ENVIRONMENT AND SUSTAINABILITY INTRODUCTION	4	Engineering and Industrial Technologies	Environmental Engineering	Course	Regulation without exam exemption	Environment thematic network	•15 credits		Not applicable		Even	Course program	Link to website
2001	WORKSHOP (**)	6	Integrating Activities	Mechanical Engineering	Course	Regulation without exam exemption	Mechanical Engineering and Industrial Production	•100 credits		None	None	Even	Course program	Link to EVA
Q28	PULP AND PAPER PRODUCTION FUNDAMENTALS	8	Engineering and Industrial Technologies	Chemical Engineering	Exam	With total exam exemption	Chemical Engineering	•Fluid-dynamics • 315 credits	None	•Pulp and paper production fundamentals	• Fluid-dynamics	Even	Course program	Link to EVA
1765	MECHANICAL BEHAVIOUR OF MATERIALS 2	13	Engineering and Industrial Technologies	Mechanical Engineering	Exam	With total exam exemption	Mechanical Engineering and Industrial Production	•Introduction to materials science •Mechanical behaviour of materials 1	None	•Mechanical behaviour of materials 2	•Mechanical behaviour of materials 1	Even	Course program	Link to EVA
1868	STATISTICAL MODELS FOR CLASSIFICATION AND REGRESSION	6	Basic Courses and Basic - Technological	Mathematics	Course	Regulation without exam exemption	Mathematics and Statistics	None	•Differential and integral calculus in several variable •Geometry and linear algebra 2 •Probability and statistics	Not applicable		Check	Course program	Link to EVA
1023	LINEAR ALGEBRA APLICATIONS	9	Basic Courses and Basic - Technological	Mathematics	Exam	With total exam exemption / Free quality	Mathematics and Statistics	None	•Differential and integral calculus in one variable •Geometry and linear algebra 2	•Linear algebra aplications	None	Check	Course program	Link to EVA
AT001	SENSITIZATION AND EXCHANGE FOR EQUITY	2	Integrating Activities	Workshops	Exam	With total exam exemption	Technologies, Natural and Habitat Sciences Area - UDELAR	None	None	•Sensitization and exchange for equity	None	Odd	WEB	Link to EVA

* Pre-requisites of the curriculum unit "Introduction to data bases" may be subject to change
** The curricular unit "Workshop (UTU)" is taught at the Instituto Tecnológico Superior (ITS) "Arias - Balparda". For more information go to EVA.

If you have questions about the curriculum:
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If you have doubts about credits or pre-requisites:
https://bedelias.udelar.edu.uy

If you have questions about programs:
https://www.fing.edu.uy/cursos