

# TECHNICAL INDUSTRIAL ENGINEER, SPECIALITY IN INDUSTRIAL CHEMISTRY

ACADEMIC YEAR 2007/2008

Degree	Technical Industrial Engineer, Speciality in Industrial Chemistry
Centre	Faculty of Sciences C/ Francisco Tomás y Valiente, 7 Campus de Cantoblanco 28049 – Madrid Phone: 914974353 <a href="#">Web page</a>
Academic Credits	220
1 <sup>st</sup> cycle	

Total Credits	Compulsory Credits	Optional Credits	Free Election Credits	Total
First Cycle	160	36	24	220
Total	160	36	24	220

## FIRST CYCLE

<b>First Course</b>	<b>Compulsory Credits</b> 66	<b>Optional Credits</b> 0	<b>Free Election Credits</b> **
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Code	Subject	Type	Credits	Semester
14008	Physics I	(Tr)	6	1
14009	Algebra	(Tr)	6	1
14010	Calculus	(Tr)	6	1
14011	Fundamentals of Chemistry	(Tr)	6	1
14012	Physical Chemistry	(Tr)	6	1
14015	Fundamentals of Chemical Engineering	(Tr)	6	2
14007	Fundamentals of Computer Methods	(Tr)	6	2
14013	Physics II	(Tr)	6	2
14014	Statistical Methods in Engineering	(Tr)	6	2
14016	Experimentation in Chemical Engineering I	(Tr)	6	2
14017	Graphical Design & CAD	(Tr)	6	2

<b>Second Course</b>	<b>Compulsory Credits</b> 46	<b>Optional Credits</b> *	<b>Free Election Credits</b> **
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Code	Subject	Type	Credits	Semester
14018	Experimentation in Chemistry	(Tr)	10	Annual
14019	Analytical Chemistry	(Tr)	6	1
14020	Fluids Dynamics & Heat Transfer	(Ob)	6	1
14021	Organic Chemistry	(Tr)	6	1
14022	Experimentation in Chemical Engineering II	(Tr)	6	2
14023	Separation Processes	(Ob)	6	2
14024	Chemical Reaction Engineering	(Tr)	6	2

<b>Third Course</b>	<b>Compulsory Credits</b> 48	<b>Optional Credits</b> *	<b>Free Election Credits</b> **
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Code	Subject	Type	Credits	Semester
14025	Industrial Chemistry	(Tr)	12	Annual
14026	Process Control and Instrumentation	(Tr)	6	1
14027	Business Administration and Production Management	(Tr)	6	1
14028	Process Scale-up	(Ob)	6	1
14029	Process Development	(Tr)	6	2
14030	Environmental Engineering	(Ob)	6	2
14031	Graduate Project	(Tr)	6	2

Optional Subjects Offer in 2nd and 3rd Course

Code	Subject	Type	Credits	Semester
14032	Environmental Chemistry	(Op)	6	1
14033	Agrochemistry	(Op)	6	1
14035	Process Analytical Chemistry	(Op)	6	2
14036	Minerals and Industrial Rocks	(Op)	6	2
14037	Electric Engineering	(Op)	6	2
14038	Thermal Engineering	(Op)	6	1
14039	Electrochemical Engineering	(Op)	6	1
14040	Biotechnology	(Op)	6	1
14041	Process Simulation and Optimization	(Op)	6	2
14042	Materials for Chemical Engineering	(Op)	6	2
14043	Alternative Energy Resources	(Op)	6	2
14044	Computer Methods in Chemical Engineering	(Op)	6	2

(Tr): Troncal = Compulsory Credits

(Ob): Obligatorio = Compulsory Credits

(Op): Optativo = Optional Credits