

## 2. B.S. in Chemical Engineering (“Ingeniería Química”) - IQ - Edition 2019

### 2.1 Berliner Hochschule für Technik

Curriculum to be taken at TECNOLÓGICO DE MONTERREY by Fachhochschule Kiel students to pursue studies toward obtaining the Bachelor Degree at TECNOLÓGICO DE MONTERREY and transfer credits to count as part of Year 3 (three) of the Fachhochschule Kiel Bachelor's degree are as follows:

Tecnologico de Monterrey B.S. in Chemical Engineering			Berliner Hochschule für Technik B. Eng. Pharmaceutical and Chemical Engineering		
Code	Course	Credits	Code	Course	ECTS
<b>First Semester</b>					
<b>Choose courses equivalent to 18 credits</b>			<b>Courses equivalent to 30 ECTS</b>		
IQ2010B	Design of Separation Processes (Fall)	4		Chemical Environment Engineering	5
IQ2011B	Design of Chemical Reactors (Fall)	4		Mechanical Unit Operations	5
IQ2012B	Analysis of Integrated Separation and Reaction Processes (Fall)	4		Advanced Organic Chemistry	5
IQ2016	Prediction of the Equilibrium of Phases and Chemical Equilibrium Applying Thermodynamics (Fall)	3		Pharmacology and the Environment	5
EG1005	Ethics and citizenship elective (Spring/Fall)	3		Pharmaceutical Technology 2	5
IQ2013B	Comprehensive Design of Chemical Processes (Spring)	12		Chemical Reaction Engineering	10
IQ2017	Design of Chemical Processes (Spring)	3			
MR2021	Automation and Control of Chemical Processes (Spring)	3			
<b>Second semester</b>					
OP3091	Professional Elective I	3		Internship + bachelor thesis	30
OP3092	Professional Elective II	3			
OP3093	Professional Elective III	3			
OP3094	Professional Elective IV	3			
OP3095	Professional Elective V	3			
OP3096	Professional Elective VI	3			
	<b>TOTAL</b>	<b>36</b>		<b>TOTAL</b>	<b>60</b>

## 2.2 Technische Hochschule Lübeck

Curriculum to be taken at TECNOLÓGICO DE MONTERREY by Technische Hochschule Lübeck students to pursue studies toward obtaining the Bachelor Degree at TECNOLÓGICO DE MONTERREY and transfer credits to count as part of Year 3 (three) of the Technische Hochschule Lübeck Bachelor's degree are as follows:

Tecnologico de Monterrey B.S. in Chemical Engineering			Technische Hochschule Lübeck B.Sc. Applied Chemistry		
Code	Course	Credits	Code	Course	ECTS
<b>First Semester</b>					
<b>Choose courses equivalent to 18 credits</b>			<b>Courses equivalent to 30 ECTS</b>		
IQ2010B	Design of Separation Processes (Fall)	4		Module Instrumental Analysis I	2.5
IQ2011B	Design of Chemical Reactors (Fall)	4		Module Lab Course Instrumental Analysis II	2.5
IQ2012B	Analysis of Integrated Separation and Reaction Processes (Fall)	4		Module Biotechnology	4
IQ2016	Prediction of the Equilibrium of Phases and Chemical Equilibrium Applying Thermodynamics (Fall)	3		Module Chemical Reaction Engineering	5
EG1005	Ethics and citizenship elective (Spring/Fall)	3		Lecture Clinical Chemistry	2.5
IQ2013B	Comprehensive Design of Chemical Processes (Spring)	12		Lecture Applied Microbiology I	2.5
				Lab Mechanical Process Technology	2.5
				Module Environmental Chemistry	5
IQ2017	Design of Chemical Processes (Spring)	3		Module Extraction of Natural Products	5.5
MR2021	Automation and Control of Chemical Processes (Spring)	3		Module Macromolecular Chemistry	5
<b>Second semester</b>					
OP3091	Professional Elective I	3		Internship + bachelor thesis	30
OP3092	Professional Elective II	3			
OP3093	Professional Elective III	3			
OP3094	Professional Elective IV	3			
OP3095	Professional Elective V	3			
OP3096	Professional Elective VI	3			
	<b>TOTAL</b>	<b>36</b>		<b>TOTAL</b>	<b>24</b>

## 2.3 Hochschule Mannheim

Curriculum to be taken at TECNOLÓGICO DE MONTERREY by Hochschule Mannheim students to pursue studies toward obtaining the Bachelor Degree at TECNOLÓGICO DE MONTERREY and transfer credits to count as part of Year 3 (three) of the Hochschule Mannheim Bachelor's degree are as follows:

Tecnologico de Monterrey B.S. in Chemical Engineering			Hochschule Mannheim B.Sc. Process Engineering		
Code	Course	Credits	Code	Course	ECTS
<b>First Semester</b>					
<b>Choose courses equivalent to 18 credits</b>			<b>Courses equivalent to 30 ECTS</b>		
IQ2010B	Design of Separation Processes (Fall)	4		Reaction Technology 2 RT2	3
IQ2011B	Design of Chemical Reactors (Fall)	4		Lab Reaction Technology RTP	5
IQ2012B	Analysis of Integrated Separation and Reaction Processes (Fall)	4		Mechanical Processes 2: MV2	4
IQ2016	Prediction of the Equilibrium of Phases and Chemical Equilibrium Applying Thermodynamics (Fall)	3		Thermal Processes 2 TV2	3
EG1005	Ethics and citizenship elective (Spring/Fall)	3		Lab Process Technology 2 VP2	4
IQ2013B	Comprehensive Design of Chemical Processes (Spring)	12		Plant Design AP	5
IQ2017	Design of Chemical Processes (Spring)	3		Plant Safety AS	3
MR2021	Automation and Control of Chemical Processes (Spring)	3		Process Simulation PSI	5
				Technical Catalysis KAT	5
				Regenerative Energy Technology: REE	4
<b>Second semester</b>					
OP3091	Professional Elective I	3		Internship + bachelor thesis	30
OP3092	Professional Elective II	3			
OP3093	Professional Elective III	3			
OP3094	Professional Elective IV	3			
OP3095	Professional Elective V	3			
OP3096	Professional Elective VI	3			
	<b>TOTAL</b>	<b>36</b>		<b>TOTAL</b>	<b>24</b>

## 2.4 Hochschule Niederrhein

Curriculum to be taken at TECNOLÓGICO DE MONTERREY by Hochschule Niederrhein students to pursue studies toward obtaining the Bachelor Degree at TECNOLÓGICO DE MONTERREY and transfer credits to count as part of Year 3 (three) of the Hochschule Niederrhein Bachelor's degree are as follows:

Tecnologico de Monterrey B.S. in Chemical Engineering			Hochschule Niederrhein B.Sc. Applied Chemistry		
Code	Course	Credits	Code	Course	ECTS
First Semester					
Choose courses equivalent to 18 credits			Courses equivalent to 30 ECTS		
IQ2010B	Design of Separation Processes (Fall)	4		Spectroscopic Methods in Organic Chemistry	4
IQ2011B	Design of Chemical Reactors (Fall)	4		Organic Chemistry III	8
IQ2012B	Analysis of Integrated Separation and Reaction Processes (Fall)	4		Applied Process Engineering	6
IQ2016	Prediction of the Equilibrium of Phases and Chemical Equilibrium Applying Thermodynamics (Fall)	3		Chemical Technologies	2.5
EG1005	Ethics and citizenship elective (Spring/Fall)	3		Bioorganic Chemistry (Part I)	4
IQ2013B	Comprehensive Design of Chemical Processes (Spring)	12		Coating Technology	4
IQ2017	Design of Chemical Processes (Spring)	3		Introduction to Polymer Chemistry	8
MR2021	Automation and Control of Chemical Processes (Spring)	3		Surface Science	3
				Biochemistry	5
				Microbiology II	3.5
				Project Module	15
Second semester					
OP3091	Professional Elective I	3		Internship + bachelor thesis	30
OP3092	Professional Elective II	3			
OP3093	Professional Elective III	3			
OP3094	Professional Elective IV	3			
OP3095	Professional Elective V	3			
OP3096	Professional Elective VI	3			
	<b>TOTAL</b>	<b>36</b>		<b>TOTAL</b>	<b>24</b>