Ministry of Education
Federal University of Latin American Integration
Dean's Office for Undergraduate Studies
CURRICULUM - CHEMISTRY - TEACHING DEGREE

COURSE COMPONENTS	PREREQUISITE (P) / COREQUISITE (C)	CREDITS	CREDIT HOURS				
			THEORETICAL	TECHNICAL SCIENTIFIC PRACTICE	PRACTICE OF THE COURSE COMPONENTS (Resolution CNE/CP 02/2019)	MANDATORY INTERNSHIP	TOTAL
SEMESTER 1							
GENERAL CHEMISTRY I		4	60	0	0	-	60
EXPERIMENTAL GENERAL CHEMISTRY		4	0	45	15	-	60
HISTORY AND EPISTEMOLOGY OF CHEMISTRY I		2	30	0	0	-	30
FUNDAMENTALS OF LATIN AMERICA I		4	60	0	0	-	60
ADDITIONAL BASIC PORTUGUESE/SPANISH		6	90	0	0	-	90
TOTAL NUMBERS IN THE SEMESTER		**20**	**240**	**45**	**15**	**0**	**300**
SEMESTER 2							
CONCEPTS IN MODERN CHEMISTRY		2	15	0	15	-	30
CALCULUS I		4	60	0	0	-	60
FUNDAMENTALS OF LATIN AMERICA II		4	60	0	0	-	60
INTRODUCTION TO SCIENTIFIC THINKING		4	60	0	0	-	60
ADDITIONAL INTERMEDIATE PORTUGUESE/SPANISH I	ADDITIONAL BASIC PORTUGUESE/SPANISH (P)	6	90	0	0	-	90
TOTAL NUMBERS IN THE SEMESTER		**20**	**285**	**0**	**15**	**0**	**300**
SEMESTER 3							
GENERAL CHEMISTRY II	GENERAL CHEMISTRY I (P)	4	60	0	0	-	60
CALCULUS II	CALCULUS I (P)	4	60	0	0	-	60
GENERAL PHYSICS APPLIED TO CHEMISTRY I		4	60	0	0	-	60
FUNDAMENTALS OF LATIN AMERICA III	FUNDAMENTALS OF LATIN AMERICA I AND II (P)	2	30	0	0	-	30
ETHICS AND SCIENCE		4	60	0	0	-	60
TOTAL NUMBERS IN THE SEMESTER		**18**	**270**	**0**	**0**	**0**	**270**

SEMESTER 4							
QUALITATIVE ANALYTICAL CHEMISTRY	GENERAL CHEMISTRY I AND EXPERIMENTAL GENERAL CHEMISTRY (P)	4	15	30	15	-	60
INORGANIC CHEMISTRY I	GENERAL CHEMISTRY I (P)	4	60	0	0	-	60
RESEARCH IN THE TEACHING OF CHEMISTRY I		2	15	0	15	-	30
GENERAL PHYSICS APPLIED TO CHEMISTRY II	GENERAL PHYSICS APPLIED TO CHEMISTRY I (P)	4	60	0	0	-	60
EXPERIMENTAL PHYSICS FOR CHEMISTRY	GENERAL PHYSICS APPLIED TO CHEMISTRY I (P)	2	0	15	15	-	30
HISTORY, EDUCATIONAL POLICIES AND ORGANIZATION OF BASIC EDUCATION		4	45	0	15	-	60
TOTAL NUMBERS IN THE SEMESTER		**20**	**195**	**45**	**60**	**0**	**300**
SEMESTER 5							
QUANTITATIVE ANALYTICAL CHEMISTRY	QUALITATIVE ANALYTICAL CHEMISTRY (P)	6	15	45	30	-	90
INORGANIC CHEMISTRY II	INORGANIC CHEMISTRY I (P)	4	60	0	0	-	60
EXPERIMENTAL INORGANIC CHEMISTRY	EXPERIMENTAL GENERAL CHEMISTRY (P)	4	0	45	15	-	60
STUDIES ON CURRICULUM AND ASSESSMENT	GENERAL PHYSICS APPLIED TO CHEMISTRY I (P)	2	30	0	0	-	30
EDUCATIONAL PSYCHOLOGY	GENERAL PHYSICS APPLIED TO CHEMISTRY I (P)	2	30	0	0	-	30
INTEGRATIVE RESEARCH SEMINARS		2	15	0	15	-	30
TOTAL NUMBERS IN THE SEMESTER		**20**	**150**	**90**	**60**	**0**	**300**
SEMESTER 6							
ORGANIC CHEMISTRY I	GENERAL CHEMISTRY II (P)	4	60	0	0	-	60
EXPERIMENTAL ORGANIC CHEMISTRY	GENERAL CHEMISTRY II AND EXPERIMENTAL GENERAL CHEMISTRY (P)	4	0	45	15	-	60
PHYSICAL CHEMISTRY I	GENERAL CHEMISTRY II AND GENERAL PHYSICS APPLIED TO CHEMISTRY I (P)	4	60	0	0	-	60
INCLUSIVE EDUCATION	EDUCATIONAL PSYCHOLOGY (P)	2	15	0	15	-	30
ELECTIVE		2	-	-	-	-	30
MANDATORY INTERNSHIP I	GENERAL CHEMISTRY II; INORGANIC CHEMISTRY II; RESEARCH IN CHEMISTRY TEACHING I; HISTORY, EDUCATIONAL POLICIES AND ORGANIZATION OF BASIC EDUCATION; HISTORY AND EPISTEMOLOGY OF CHEMISTRY I (P)	4	-	-	-	60	60
TOTAL NUMBERS IN THE SEMESTER		**20**	**135**	**45**	**30**	**60**	**300**
SEMESTER 7							
ORGANIC CHEMISTRY II	ORGANIC CHEMISTRY I (P)	4	60	0	0	-	60
PHYSICAL CHEMISTRY II	PHYSICAL CHEMISTRY I (P)	4	60	0	0	-	60

HISTORY AND EPISTEMOLOGY OF CHEMISTRY II	HISTORY AND EPISTEMOLOGY OF CHEMISTRY I; GENERAL CHEMISTRY II (P)	4	60	0	0	-	60
INSTRUMENTATION FOR TEACHING CHEMISTRY	RESEARCH IN CHEMISTRY TEACHING I; HISTORY AND EPISTEMOLOGY OF CHEMISTRY I; EDUCATIONAL PSYCHOLOGY; HISTORY, EDUCATIONAL POLICIES AND ORGANIZATION OF BASIC EDUCATION; PHYSICAL CHEMISTRY I; ORGANIC CHEMISTRY I (P)	4	15	0	45	-	60
BRAZILIAN SIGN LANGUAGE – LIBRAS I		2	15	15	0	-	30
ELECTIVE		2	-	-	-		30
TOTAL NUMBERS IN THE SEMESTER		**20**	**210**	**15**	**45**	**0**	**300**
SEMESTER 8							
PHYSICAL CHEMISTRY III	PHYSICAL CHEMISTRY II (P)	4	60	0	0	-	60
EXPERIMENTAL PHYSICAL CHEMISTRY	PHYSICAL CHEMISTRY II (P)	4	0	45	15	-	60
RESEARCH IN CHEMISTRY TEACHING II	RESEARCH IN CHEMISTRY TEACHING I; HISTORY AND EPISTEMOLOGY OF CHEMISRY II (P)	4	15	0	45	-	60
BRAZILIAN SIGN LANGUAGE – LIBRAS II	BRAZILIAN SIGN LANGUAGE – LIBRAS I (P)	2	10	20	0	-	30
ELECTIVE		4	-	-	-	-	60
MANDATORY INTERNSHIP II	MANDATORY INTERNSHIP I; ORGANIC CHEMISTRY I; PHYSICAL CHEMISTRY I; HISTORY AND EPISTEMOLOGY OF CHEMISTRY II; STUDIES ON CURRICULUM AND ASSESSMENT (P)	4	-	-	-	60	60
TOTAL NUMBERS IN THE SEMESTER		**22**	**85**	**65**	**60**	**60**	**330**
SEMESTER 9							
ENVIRONMENTAL CHEMISTRY AND SOCIETY	QUANTITATIVE ANALYTICAL CHEMISTRY (P)	4	30	0	30	-	60
INSTRUMENTATION FOR TEACHING CHEMISTRY II	INSTRUMENTATION FOR TEACHING CHEMISTRY I (P)	4	0	0	60	-	60
INSTRUMENTAL CHEMISTRY	INORGANIC CHEMISTRY II; QUANTITATIVE ANALYTICAL CHEMISTRY	4	0	30	30	-	60
FINAL PAPER I	MANDATORY INTERNSHIP II (P)	1	15	0	0	-	15
MANDATORY INTERNSHIP III	MANDATORY INTERNSHIP II (P)	10	-	-	-	150	150
TOTAL NUMBERS IN THE SEMESTER		**23**	**45**	**30**	**120**	**150**	**345**
SEMESTER 10							
FUNDAMENTALS OF BIOCHEMISTRY	ORGANIC CHEMISTRY I (P)	4	30	15	15	-	60
MINERALOGY	ORGANIC CHEMISTRY II (P)	2	15	0	15	-	30
ELECTIVE		2	-	-	-	-	30
FINAL PAPER II	FINAL PAPER I (P)	2	30	0	0	-	30

MANDATORY INTERNSHIP IV	MANDATORY INTERNSHIP III (P)	14	-	-	-	210	210
TOTAL NUMBERS IN THE SEMESTER		**24**	**75**	**15**	**30**	**210**	**360**
COMPLEMENTARY ACADEMIC ACTIVITIES							
COMPLEMENTARY ACADEMIC ACTIVITIES		**16**					**240**
TOTAL NUMBERS OF ELECTIVES							
TOTAL NUMBER OF ELECTIVES		**10**					**150**

TOTAL CREDIT HOURS OF THE COURSE	**MINIMUM CLOCK HOURS REQUIRED BY MEC**
3345	**2800**

TOTAL HOURS – PRACTICE OF THE COURSE COMPONENTS	**435**	**MINIMUM CLOCK HOURS REQUIRED BY MEC**	**400**
TOTAL HOURS – COMPLEMENTARY ACADEMIC ACTIVITIES	**240**	**MINIMUM CLOCK HOURS REQUIRED BY MEC**	**200**
TOTAL HOURS – MANDATORY INTERNSHIP	**480**	**MINIMUM CLOCK HOURS REQUIRED BY MEC**	**400**

DISCIPLINES OFFERED BY THE COURSE	PREREQUISITE (P) / COREQUISITE (C)	CREDITS	CREDIT HOURS (CLASS HOURS)			
			THEORETICAL	TECHNICAL SCIENTIFIC PRACTICE	PRACTICE AS A COURSE COMPONENT (Resolution CNE/CP 02/2002)	TOTAL
SPECIAL TOPICS IN CHEMISTRY I		2	30	0	0	30
SPECIAL TOPICS IN CHEMISTRY II		2	30	0	0	30
FOOD CHEMISTRY		2	30	0	0	30
STRUCTURE OF SOLIDS		2	30	0	0	30
CHEMISTRY OF MATERIALS		4	60	0	0	60
CHEMICAL TECHNOLOGY		2	30	0	0	30
GREEN CHEMISTRY		2	30	0	0	30
ELECTROCHEMISTRY		2	30	0	0	30
ENGLISH FOR ACADEMIC PURPOSES		2	30	0	0	30