Concentration in Chemistry (106 credits)		Concentration in Chemistry (93 credits) Program abolished	
Requirements 2003-2005		**New course codes 2006**	
Compulsory first-year credits:	~~34~~	Compulsory first-year credits:	**27**
Suggested course stream for full-time students		Suggested course stream for full-time students	
Fall:		**Fall:**	
~~CHM1310~~ Principles of Chemistry	~~4~~	**CHM1311** Principles of Chemistry	**3**
MAT1320 Calculus I	3	MAT1320 Calculus I	3
~~PHY110~~1 Fundamentals of Physics I	3	**PHY1121** Fundamentals of Physics I	**3**
~~PHY1201 Physics Laboratory~~	~~3~~		
Winter:		**Winter:**	
~~CHM1320~~ Organic Chemistry I	~~4~~	**CHM1321** Organic Chemistry I	**3**
~~PHY1102~~ Fundamentals of Physics II	3	**PHY1122** Fundamentals of Physics II	**3**
Either de combination :		Either de combination :	
MAT1322 Calculus II	3	MAT1322 Calculus II	3
MAT1341 Introduction to Linear Algebra	3	MAT1341 Introduction to Linear Algebra	3
or the combination of:		or the combination of:	
~~MAT1323 Calculus and Matrix Algebra~~	~~3~~		
		MAT1332 Calculus for the Life Sciences II	**3**
plus one of :		plus one of :	
MAT2324 Ordinary Differential Equations and Laplace Transformation	3	MAT2324 Ordinary Differential Equations and Laplace Transformation	3
~~MAT2331~~ Ordinary Differential Equations and Numerical Methods	4	**MAT2384** Ordinary Differential Equations and Numerical Methods	**3**
MAT2378 Probability and Statistics for the Natural Sciences	3	MAT2378 Probability and Statistics for the Natural Sciences	3
~~Eight~~ credits (minimum) from:	~~8~~	**Six** credits (minimum) from:	**6**
~~BIO1110~~ Introduction to Cell Biology	~~4~~	**BIO1140** Introduction to Cell Biology	**3**
~~BIO1120~~ Introduction to Organismal Biology	~~4~~	**BIO1130** Introduction to Organismal Biology	**3**
~~ITI1220~~ Introduction to Computer Science I	~~4~~	**ITI1120** Introduction to Computer Science I	**3**
GEO1111 Introduction to Earth Systems	3	GEO1111 Introduction to Earth Systems	3
GEO1115 Introduction to Earth Materials	3	GEO1115 Introduction to Earth Materials	3
~~GNG1100~~ Engineering Mechanics	4	**GNG1105** Engineering Mechanics	**3**
~~Four~~ credits in introductory engineering	4	**Three** credits in introductory engineering	**3**
Other compulsory credits	~~43~~	Other compulsory credits	**36**
Fall:		**Fall:**	
~~CHM2116 Laboratory of Environmental Chemistry~~	~~2~~		
CHM2120 Organic Chemistry II	3	CHM2120 Organic Chemistry II	3
~~CHM2126~~ Laboratory of Organic Chemistry II	~~2~~	**CHM2123** Laboratory of Organic Chemistry II	**3**
CHM2131 Chemical Thermodynamics of Gases and Solutions	3	CHM2131 Chemical Thermodynamics of Gases and Solutions	3
~~CHM2154~~ Analytical Chemistry	3	**CHM2354** Analytical Chemistry	3
~~CHM235~~2 Descriptive Inorganic Chemistry	3	**CHM2353** Descriptive Inorganic Chemistry	3
CHM3120 Intermediate Organic Chemistry	3	CHM3120 Intermediate Organic Chemistry	3
CHM3122 Applications of Spectroscopy in Chemistry	3	CHM3122 Applications of Spectroscopy in Chemistry	3
CHM3126 Laboratory of Organic Chemistry	3	CHM3126 Laboratory of Organic Chemistry	3
~~CHM3150 Transition Metal Chemistry~~	~~3~~	**CHM3350** Transition Metal Chemistry	3

~~CHM3156 Inorganic Chemistry Laboratory~~	~~3~~
Winter:	
~~CHM2118 Laboratory of Analytical Chemistry~~	~~2~~
~~CHM2130~~ Physical Chemistry: Introduction to the molecular properties of matter	3
~~CHM2136 Laboratory of Physical Chemistry~~	~~2~~
CHM2311 Introduction to Structure and Bonding	3
PHY2100 Fundamentals of Applied Physics III	3
Credits of Science Electives: (A minimum of two courses from the list below)	~~17~~
Fall:	
BCH3170 Molecular Biology	3
or	
BIO3170 Molecular Biology	3
~~BIO2127~~ Introduction to Plant Science: Biodiversity to Biotechnology	~~5~~
or	
~~BIO2125~~ Animal Form and Function (winter)	~~5~~
CHG2317 Introduction to Chemical Process Analysis and Design	3
GEO2163 Introduction to Mineralogy	3
GEO3163 Igneous Petrology	3
GEO3164 Metamorphic Petrology	3
GEO3342 Introduction to Hydrogeology	3
GEO4382 Advanced Geochemistry	3
~~MAT2122 Calculus III~~	~~3~~
MAT2324 Ordinary Differential Equations and Laplace Transformation	3
or	
~~MAT2331~~ Ordinary Differential Equations and Numerical Methods	~~4~~
MAT3121 Complex Analysis I	3
MAT3320 Mathematics for Engineers	3
MIC5124 Immunology	3
MIC5326 Virology	3
~~PHY2106 Physics Laboratory~~	~~3~~
~~PHY2310 Applied Optics~~	~~3~~
PHY4330 Advanced Dynamics	3
Winter:	
~~BCH2140~~ Introduction to Biochemistry	~~3~~
BCH3120 General Intermediary Metabolism	3
~~BIO2123~~ Genetics	~~4~~
CHG2319 Elements of Chemical Process Synthesis	3
CHM2313 Environmental Chemistry	3
GEO2164 Analytical Methods in Mineralogy	3
GEO3382 Geochemistry	3
GEO4342 Groundwater Geochemistry	3
~~MAT2125 Mathematical Analysis I~~	~~3~~
~~PHY2108 Physics Laboratory~~	~~2~~

Winter:	
CHM2330 Physical Chemistry: Introduction to the molecular properties of matter	3
CHM2311 Introduction to Structure and Bonding	**3**
PHY2100 Fundamentals of Applied Physics III	3
Credits of Science Electives: (A minimum of two courses from the list below)	**18**
Fall:	
BCH3170 Molecular Biology	3
or	
BIO3170 Molecular Biology	3
BIO2137 Introduction to Plant Science: Biodiversity to Biotechnology	**3**
or	
BIO2135 Animal Form and Function (winter)	**3**
CHG2317 Introduction to Chemical Process Analysis and Design	3
GEO2163 Introduction to Mineralogy	3
GEO3163 Igneous Petrology	3
GEO3164 Metamorphic Petrology	3
GEO3342 Introduction to Hydrogeology	3
GEO4382 Advanced Geochemistry	3
MAT2324 Ordinary Differential Equations and Laplace Transformation	3
or	
MAT2384 Ordinary Differential Equations and Numerical Methods	**3**
MAT3121 Complex Analysis I	3
MAT3320 Mathematics for Engineers	3
MIC5124 Immunology	3
MIC5326 Virology	3
PHY4330 Advanced Dynamics	3
Winter:	
BCH2333 Introduction to Biochemistry	**3**
BCH3120 General Intermediary Metabolism	3
BIO2133 Genetics	**3**
CHG2319 Elements of Chemical Process Synthesis	3
CHM2313 Environmental Chemistry	3
GEO2164 Analytical Methods in Mineralogy	3
GEO3382 Geochemistry	3
GEO4342 Groundwater Geochemistry	3

plus	plus
To obtain the Bsc with concentration in chemistry, the third year required courses must be completed, plus eleven additional CHM credits at the 3000-4000 level. For those eleven credits a maximum of one laboratory course (either ~~CHM3336~~ or CHM4116) may be taken for the BSc with concentration in chemistry. ~~11~~	To obtain the Bsc with concentration in chemistry, the third year required courses must be completed, plus twelve additional CHM credits at the 3000-4000 level. For those credits a laboratory course CHM4116 may be taken for the BSc with concentration in chemistry. **12**
Twelve credits of non-science electives 12	Twelve credits of non-science electives 12