

**University of St. Thomas**  
**Bachelor of Arts in Chemistry**  
**2011-2012 Catalog**

<b>UST Core Requirements (46 hours)</b>		<b>Total Hours Complete</b>	<b>Total Hours Needed</b>
<b>Theology (6 credit hours) – must take in order</b> THEO 1300/3300 – Teachings of the Catholic Church THEO 2300/3310 – Intro to the Sacred Scriptures		<b>Transfer Students:</b>  <i>Transferring 30-59 hours:</i> Theology – 6-9 hours Philosophy – 6-9 hours Synthesis – 3 hours <b>Total must be 18 hours</b>	
<b>Moral Theology (3 credit hours) – choose one of the following</b> THEO 3349 – Christ and the Moral Life THEO 3351 – Prophets and Ancient Israel THEO 3352 – Paul: His Letters and Theology THEO 4323 – Teachings of Jesus THEO 4325 – Faith and Moral Development THEO 4334 – Social Justice and the Church THEO 4348 – Theology of the Body			
<b>Philosophy (9 credit hours) – must take in order</b> <i>Systematic Sequence</i> PHIL 1311 – Phil of the Human Person PHIL 2314 – Ethics PHIL 3313 – Metaphysics <b>OR</b> <i>Historical Sequence</i> PHIL 1315/3315 – Ancient Philosophy PHIL 2316/3316 – Medieval Philosophy PHIL 3317 – Modern Philosophy			<i>Transferring 60+ hours:</i> Theology – 6 hours Philosophy – 6 hours <i>as upper or lower division</i>
<b>Synthesis Course (3 credit hours) – choose one of the following in consultation with academic advisor</b> CS 3310 – Opening to Transcendence: Rediscovering Symbol CS 3320 – Re-Connecting Catholicism with the Social and Natural Sciences CS 4300 – Catholic Impact on the Professions PHIL 3314 – Business Ethics PHIL 3318 – Bioethics PHIL 3336 – Political Philosophy PHIL 3350 – Contemporary Logic PHIL 4318 – Contemporary Philosophy PHIL 4331 – Philosophy of Art and Beauty PHIL 4335 – Analytical Philosophy PHIL 4337 – Philosophy of History and Culture PHIL 4340 – Phenomenology and Existentialism PHIL 4350 – Philosophy of Law: Tradition of Natural Law PHIL 4352 – Philosophy of Science PHIL 4354 – Philosophy of Saint Augustine THEO 3321 – Apologetics THEO 3322 – Theology of Creation THEO 3331 – Catholic Church: Origin, Structure and Mission THEO 3336 – Christian Spirituality THEO 3345 – Theology of St. Thomas Aquinas THEO 3346 – Christian Vocations: Paths to Holiness THEO 3363 – Church History I THEO 3364 – Church History II THEO 3375 – Eastern World Religions THEO 3376 – Western World Religions THEO 4324 – Christian Ethics and the Law THEO 4327 – Sacred Arts in the Church THEO 4334 – Social Justice and the Church THEO 4336 – American Catholic Heritage THEO 4347 – Fathers of the Church THEO 4374 – Modern Challenges to Christianity <i>*Additional courses will be added to the synthesis options as they are approved. See the Academic Advising Center for the most updated information.</i>			
<b>English (9 credit hours) – must take in order</b> ENGL 1341 – The Classical Tradition: Literature & Composition I ENGL 1342 – The Middle Ages: Literature & Composition II ENGL 2312 – The Modern World: Literature & Composition III		<b>Students with transfer credit:</b> 3 hours – take ENGL 1341, 1342 6 hours – take ENGL 3312	
<b>History (6 credit hours)</b> HIST 1335 – World Community I HIST 1336 – World Community II <b>OR</b> HIST 2333 – United States to 1877 HIST 2334 – United States since 1877		<b>Transferring 60+ hours may choose:</b> HIST 3303 – Europe: The Middle Ages HIST 3304 – Europe: The Early Modern Age <b>OR</b> HIST 3331 – Age of Revolutions: Europe 1715-1870 HIST 3332 – Era of Great Wars: Europe 1870-1950	
<b>Social &amp; Behavioral Sciences (6 credit hours)</b> <ul style="list-style-type: none"> <li>• Choose from economics, geography, international studies, political science, psychology and sociology</li> </ul>		<b>Oral Communication (3 credit hours)</b> <b>School of Arts &amp; Sciences and School of Education</b> COMM 1331 – Public Speaking <b>OR</b> COMM 2332 – Persuasion and Argumentation <b>+</b> <b>Social &amp; Behavioral Sciences (3 credit hours)</b>	
<b>Natural Sciences (8 credit hours)</b> Included in Chemistry major requirements (Satisfied by CHEM 1341/1141 & CHEM 1432/1142)		<b>Modern and Classical Languages (6 credit hours)</b> <ul style="list-style-type: none"> <li>• Choose two sequential courses in one language. Courses must be completed in the approved order. Choose language options from French, Spanish, (Classical) Greek, Latin, Irish, Arabic, German, Italian, Japanese, Mandarin Chinese, Russian or other available language.</li> </ul> <b>+</b> <b>Natural Sciences (4 credit hours)</b>	
<b>Mathematics (3 credit hours)</b> Included in Chemistry major requirements (Satisfied by MATH 1431)			
<b>Fine Arts (3 credit hours) – choose one of the following</b> ARTHS 1350 – Introduction to the Visual Arts ARTHS 2351 – Survey of Art I ARTHS 2352 – Survey of Art II Any upper-division Art History course DRAM 1330 – Introduction to the Theatre DRAM 3329 – Screenwriting DRAM 3331 – Playwriting DRAM 3340 – Theatre History I DRAM 3341 – Theatre History II MUSC 1331 – Introduction to Music MUSC 2362 – Basic Musicianship I for Music Majors MUSC 2363 – Basic Musicianship I MUSC 3340 – Music and Western Civilization Upper-division Music course			
<b>Freshman Symposium (1 credit hour) – required for all entering freshmen</b> UNIV 1111 – Freshman Symposium: Educating Leaders of Faith and Character			

<b>Bachelor of Arts in Chemistry Major Requirements (56 credit hours)</b>	<b>Total Hours Complete</b>	<b>Total Hours Needed</b>
<b>Chemistry (36 credit hours):</b> CHEM 1341/1141 – General Chemistry I and laboratory CHEM 1342/1142 – General Chemistry II and laboratory ( <i>pre-req CHEM 1341/1141</i> ) CHEM 2343/2143 – Organic Chemistry I and laboratory ( <i>pre-req CHEM 1342/1142</i> ) CHEM 2344/2144 – Organic Chemistry II and laboratory ( <i>pre-req CHEM 2343/2143</i> ) CHEM 3334/3134 – Biochemistry and laboratory ( <i>pre-req junior standing; CHEM 2343/2143</i> ) CHEM 3343/3143 – Quantitative Analysis and laboratory ( <i>pre-req CHEM 1341/1342</i> ) CHEM 4112 – Seminar (pass/fail) CHEM 4332/4132 – Inorganic Chemistry and laboratory ( <i>pre-req CHEM 2344/2144</i> ) CHEM 4361/4161 – Physical Chemistry I and laboratory CHEM 4362 – Physical Chemistry II ( <i>pre-req CHEM 4361</i> )		
<b>Chemistry - (4 credit hours):</b> CHEM 3000/4000 – choose 4 credit hours of upper division Chemistry		
<b>Mathematics (8 credit hours):</b> MATH 1431 – Calculus I MATH 1432 – Calculus II ( <i>pre-req MATH 1431</i> )		
<b>Physics (8 credit hours):</b> PHYS 1331/1111 – General Physics I and laboratory PHYS 1332/1112 – General Physics II and laboratory ( <i>pre-req PHYS 1331/1111</i> )		
<b>Electives to reach the 126 credit hour minimum for graduation (24 credit hours)</b>		
<b>Total Required</b>	<b>126</b>	

**Recommended for students desiring to qualify for a teaching certificate or for entering a health professions program such as medicine, dentistry or pharmacy.**

(\_\_\_\_\_ hours transferred)

\_\_\_\_\_ hrs complete + \_\_\_\_\_ hrs ip + \_\_\_\_\_ hrs core + \_\_\_\_\_ hrs major + \_\_\_\_\_ hrs minor + \_\_\_\_\_ hrs other + \_\_\_\_\_ hrs electives = 126+