Student Name: _____ ID # _____

Advisor Name: _____ Anticipated Graduation Date: _____

CHEMISTRY MAJOR CHECKLIST: ALL STREAMS (122 s.h.)

2026-27 Academic Calendar

1. Inquiry: Ways of Knowing – Core Requirements (37 – 40 s.h.*)

**University Core Requirements are modified for students who transfer in with 57 s.h. or more of initial transfer credit. See Academic Calendar for details.*

✓	COURSE	S.H.	NOTES
FOUNDATIONAL INQUIRIES (25 sem. hrs.)			
Academic Research & Writing			
	ENGL _____	3	Choose two of: ENGL 101, 102, 103, 104.
	ENGL _____	3	
Foundations			
	FNDN 101	1	Compulsory during the first semester of the first year for all new students unless they have a minimum 24 sem. hrs. initial transfer credit.
	FNDN 102	3	Normally taken before year three.
	FNDN 201	3	
Logical & Ethical Reasoning			
	PHIL _____	3	Choose one of: PHIL 100, 103, 105, 106, 109, or 210.
Religious & Spiritual Thought			
	RELS _____	3	Choose RELS 110 or 160. Recommended in 1st semester of the 1st year.
	RELS 111	3	
	RELS 112	3	
Scientific Method & Lab Research			
	**	**	Satisfied by CHEM 111.

✓	COURSE	S.H.	NOTES
	Academic Writing Requirement [1]		
WAYS OF KNOWING (12 – 15 sem. hrs.)			
In addition to the courses on the left, students must take an additional 12 – 15 sem. hrs. from each of the following categories, *9 s.h. of which must be from outside of the student's major.*			
Aesthetic & Performance Inquiry			
		3	Choose 3 sem. hrs. from the Aesthetic & Performance Inquiry category.
Cultural & Linguistic Inquiry			
		3	Choose 3 sem. hrs. from the Cultural & Linguistic Inquiry category.
Experiential & Embodied Inquiry			
		3*	Choose 3 sem. hrs. from the Experiential & Embodied Inquiry category. ***May** be satisfied by stream requirement of CHEM 409 or 410.
Historical & Archival Inquiry			
		3	Choose 3 sem. hrs. from the Historical & Archival Inquiry category.
Quantitative & Computational Inquiry			
	**	**	Satisfied by CHEM 112.
Social & Global Inquiry			
		3	Choose 3 sem. hrs. from the Social & Global Inquiry category (page 2).

[1] **Academic Writing Requirement**: students must take WRTG 100 (native English speakers) or WRTG 101 (non-native English speakers) in their first semester at TWU, unless exempt at the time of admission to the University. WRTG course credit may be included toward a degree program as elective credit.

Ways of Knowing: Categories

Aesthetic & Performance Inquiry	ART 181, 182, 230, 250, 280; ENGL 207, 208, 310; HKIN 342; MCOM 211, 221, 231, 369; MUSI 110; PHIL 370; SAMC 111, 370; THTR 130, 161; any Music Ensembles; any Music (MUSA) Private Lessons.
Cultural & Linguistic Inquiry	ANTH 210, 395; EDUC 496; ENGL 334, 340, 482; GREE 235; HEBR 245; HIST 237; IDIS 201; POLS 237; RELS 235, 245; SOCI 395; any World Languages & Cultures course (CHIN, FREN, JAPA, RUSS, SPAN).
Experiential & Embodied Inquiry	ART 305, 306, 307; BIOL 316, 318, 362, 364, 409, 410; BIOT 200, 300, 400, 409, 410; BUSI 395, 396, 49x; CHEM 409, 410; CMPT 409, 410; EDUC 302, 303, 402, 403; GENV 131, 316, 318, 372, 373, 374, 375, 409, 410; HIST 310, 315, 316; HKIN 201, 202, 216, 235, 266, 336, 355, 455, 456, 457, 458, 459, 460; LING 398, 399; MATH 409, 410; MCOM 281, 391, 392, 393; NURS 213; POLS 395, 396; PSYC 322, 497, 498; SOCI 320, 411, 420; THTR 101, 102, 151, 152, 153, 154, 175, 210, 301, 302, 351, 352, 353, 354; any 1 sem. hr. HKIN Activity course; any Travel Study; any CCCU Global Ed course; any Au Sable course.
Historical & Archival Inquiry	ART 237, 238; ECON 306; GENV 312; HIST 107, 108, 135, 306, 339, 391; LDRS 302; MUSI 131, 132; NURS 230; PHIL 203, 314, 421; POLS 391; PSYC 408; RELS 320, 351, 352, 475; SAMC 112; SOCI 391; THTR 331, 332.
Social & Global Inquiry	ANTH 101, 220, 302; BUSI 311; ECON 311, 354; EDUC 345, 365; ENGL 348; GENV 111, 212, 322, 354; HKIN 325; LING 101, 210, 302; MCOM 111, 171, 251, 313, 315, 317, 372, 491; NURS 227; PHIL 208, 220, 310, 320; POLS 101, 211, 310, 312, 320, 493; PSYC 399; RELS 271, 272, 285, 381, 384, 386, 476; SOCI 101, 220; THTR 348.

2. Stream Requirements (62 – 71 s.h.) – Choose your stream below.

☐ General Program Stream (62 s.h.)

Chemistry Requirements (44 s.h.) *CHEM 111/112 may be substituted with either CHEM 103/112 or CHEM 103/104.

✓	COURSE	S.H.	NOTES	✓	COURSE	S.H.	NOTES
	CHEM 111*	4	Includes a one s.h. lab (CHEM 198) as a co-requisite.		CHEM _____	3	
	CHEM 112*	4	Includes a one s.h. lab (CHEM 199) as a co-requisite.		CHEM _____	3	
	CHEM 221	3			CHEM _____	3	Choose from: CHEM 321, 322, 341, 342, 358, 370, 384, 431, 432, 461, 469, 409/410* *409/410 would meet the Experiential & Embodied Inquiry Requirements.
	CHEM 222	3			CHEM _____	3	
	CHEM 230	3			CHEM _____	3	
	CHEM 240	3			CHEM _____	3	
	CHEM 357	3			CHEM _____	3	

Ancillary Requirements (18 s.h.)

	MATH 123	3			NATS 482	3	
	MATH 124	3			PHYS 111	3	
	_____	3	Choose MATH 223 or CMPT 140.		PHYS 112	3	

☐ Graduate School Prep. Program Stream (71 s.h.)

Chemistry Requirements (47 s.h.)

✓	COURSE	S.H.	NOTES	✓	COURSE	S.H.	NOTES
	CHEM 111*	4	Includes a one s.h. lab (CHEM 198) as a co-requisite.		CHEM 357	3	
	CHEM 112*	4	Includes a one s.h. lab (CHEM 199) as a co-requisite.		CHEM 358	3	
	CHEM 221	3			CHEM 384	3	
	CHEM 222	3			CHEM 409/410	3	
	CHEM 230	3			CHEM 431	3	
	CHEM 240	3			CHEM _____	3	Choose from CHEM 322, 342, 370, 432, 461, 469.
	CHEM 321	3			CHEM _____	3	
	CHEM 341	3		*CHEM 111/112 may be substituted with either CHEM 103/112 or CHEM 103/104.			

Ancillary Requirements (24 s.h.)

	MATH 123	3			NATS 482	3	
	MATH 124	3			PHYS 111	3	
	MATH 223	3			PHYS 112	3	
	_____	3	Choose from MATH 250, PHYS 220, or a 300- or 400-level MATH course.		PHYS _____	3	Choose PHYS 220* or 230. *220 may only be taken if MATH 250 or an upper-level MATH course is also taken.

Continued on next page.

☐ Life Sciences Stream (70 s.h.)

Chemistry Requirements (44 s.h.)

✓	COURSE	S.H.	NOTES	✓	COURSE	S.H.	NOTES
	CHEM 111*	4	Includes a one s.h. lab (CHEM 198) as a co-requisite.		CHEM 384	3	Lab also required.
	CHEM 112*	4	Includes a one s.h. lab (CHEM 199) as a co-requisite.		CHEM 386	3	
	CHEM 221	3	Lab also required.		CHEM _____	3	Choose from CHEM 321, 322, 341, 342, 370, 372, 409/410, 431, 461, 469. (409/410 would satisfy the Experiential & Embodied Inquiry requirements)
	CHEM 222	3	Lab also required.		CHEM _____	3	
	CHEM 230	3			CHEM _____	3	
	CHEM 240	3	Lab also required.		CHEM _____	3	
	CHEM 357	3			CHEM _____	3	

Goal is ten Lab (L) courses. Seven required Chemistry courses have labs; choose an additional three from: 322, 341, 370, 431, 409/410.
*CHEM 111/112 may be substituted with either CHEM 103/112 or CHEM 103/104.

Ancillary Requirements (26 s.h.)

	BIOL 113	4	Includes a one s.h. lab (BIOL 198) as a co-requisite.		MATH 124	3	
	BIOL 114	4	Includes a one s.h. lab (BIOL 199) as a co-requisite.		NATS 482	3	
	BIOL 223	3			PHYS 111	3	
	MATH 123	3			PHYS 112	3	

3. Elective Courses – ALL Streams (12 – 20 s.h.)

Students are encouraged, but not required, to take elective classes that contribute to a concentration or a minor. If you choose to take a concentration or a minor, please attach the appropriate concentration/minor checklist available at twu.ca/advising.

✓	COURSE	S.H.	NOTES	✓	COURSE	S.H.	NOTES

NOTES:

- Graduation requirement: A total of at least 122 s.h of credit, including a minimum of 42 s.h. in the major, a minimum of 42 s.h. of upper-level credit (24 s.h. in the major), and a minimum cumulative GPA of 2.0 overall and in the major.
- You must complete an Application for Graduation via the Student Portal and submit a copy of your filled in program checklist(s) (i.e. this document) to the Office of the Registrar by June 30 of the year prior to your completion. For more information on the graduation process, please visit twu.ca/graduation.

This program is offered under TWU's exempt status with the Degree Quality Assessment Board.

B.Sc. Degree *Chemistry - General* - 4 Year Plan

✓	s.h.	YEAR 1 Fall
	1	FNDN 101
	3	RELS 110 or 160
	3	ENGL 103
	4	CHEM 111[4]
	4	BIOL 113[4]
Semester Total: 15		

✓	s.h.	YEAR 2 Fall
	3	RELS 111
	3	PHIL[1]
	3	BIOL 223[4]
	3	CHEM 221[4]
	3	PHYS 111[4]
Semester Total: 15		

✓	s.h.	YEAR 3 Fall
	3	Core[2]
	3	CHEM 432
	3	CHEM[5]
	3	CHEM[5]
	3	MATH 223 or CMPT 140
Semester Total: 15		

✓	s.h.	YEAR 4 Fall
	3	Core[2]
	3	CHEM 240[4]
	3	CHEM 357[4]
	3	NATS 482
	3	Elective
Semester Total: 15		

✓	s.h.	YEAR 1 Spring
	3	FNDN 102
	3	ENGL 104
	4	BIOL 114[4]
	4	CHEM 112[4]
	3	MATH 123
Semester Total: 17		

✓	s.h.	YEAR 2 Spring
	3	FNDN 201
	3	CHEM 222[4]
	3	CHEM 230
	3	PHYS 112[4]
	3	MATH 124
Semester Total: 15		

✓	s.h.	YEAR 3 Spring
	3	RELS 112
	3	Core[2]
	3	CHEM 321
	3	CHEM[6]
	3	CHEM[6]
Semester Total: 15		

✓	s.h.	YEAR 4 Spring
	3	Core[2]
	3	Core[3]
	3	CHEM 358[4]
	3	CHEM 461
	3	Elective
Semester Total: 15		

COURSE LEGEND

Core Courses

1. Choose from: PHIL 100, 103, 105, 106, 109, or 210
2. Core electives should be chosen as follows:
   - ONE Aesthetic and Performance Inquiry
   - ONE Cultural & Linguistic Inquiry
   - ONE Experiential & Embodied Inquiry
   - ONE Historical & Archival Inquiry
   - ONE Social & Global Inquiry
3. Or take CHEM 342.

Major Courses

4. Includes co-requisite lab
5. Choose a combination of: CHEM 322 & 341; CHEM 341 & 384; or CHEM 322 & 384.
6. Choose a combination of: CHEM 370 & 431; CHEM 321 & 370; or CHEM 431 & a Core elective.

Major + Core Courses

4. Includes co-requisite lab

Ancillary Courses

4. Includes co-requisite lab

Ancillary + Core Courses

Electives

Summer Sessions are encouraged to reduce semester load and/or repeat courses.

This is an example of what a 4-year degree plan might look like. It is not the official program checklist. In the case of any discrepancy between this program plan and the checklist, the checklist shall prevail. It is the student's responsibility to ensure they complete all program requirements as laid out in the approved checklist.

B.Sc. Degree *Chemistry - Grad Prep* - 4 Year Plan

✓	s.h.	YEAR 1 Fall
	1	FNDN 101
	3	RELS 110 or 160
	3	ENGL 103
	4	CHEM 111[3]
	3	MATH 123
Semester Total: 14		

✓	s.h.	YEAR 2 Fall
	3	Core[1]
	3	PHIL[2]
	3	CHEM 221[3]
	3	PHYS 111[3]
	3	MATH 223
Semester Total: 15		

✓	s.h.	YEAR 3 Fall
	3	Core[1]
	3	CHEM 322[1]
	3	CHEM 341
	3	CHEM 432
	3	MATH 250
Semester Total: 15		

✓	s.h.	YEAR 4 Fall
	3	Core[1]
	3	CHEM 240[3]
	3	CHEM 357[3]
	3	CHEM 384[3]
	1	CHEM 409
	3	NATS 482
Semester Total: 16		

✓	s.h.	YEAR 1 Spring
	3	FNDN 102
	3	RELS 111
	3	ENGL 104
	4	CHEM 112[3]
	3	MATH 124
Semester Total: 16		

✓	s.h.	YEAR 2 Spring
	3	FNDN 201
	3	CHEM 222[3]
	3	CHEM 230
	3	CHEM 461
	3	PHYS 112[3]
Semester Total: 15		

✓	s.h.	YEAR 3 Spring
	3	Core[1]
	3	CHEM 321
	3	CHEM 370[3]
	3	CHEM 431[3]
	3	PHYS 220 or 230
Semester Total: 15		

✓	s.h.	YEAR 4 Spring
	3	RELS 112
	2	CHEM 410
	3	CHEM 342
	3	CHEM 358[3]
	3	CHEM 386
	3	Elective
Semester Total: 17		

COURSE LEGEND

Core Courses

1. Core electives should be chosen as follows:
   - ONE Aesthetic and Performance Inquiry
   - ONE Cultural & Linguistic Inquiry
   - ONE Historical & Archival Inquiry
   - ONE Social & Global Inquiry
2. Choose from: PHIL 100, 103, 105, 106, 109, or 210

Major Courses

3. Includes co-requisite lab

Major + Core Courses

3. Includes co-requisite lab

Ancillary Courses

3. Includes co-requisite lab

Ancillary + Core Courses

Electives

Summer Sessions are encouraged to reduce semester load and/or repeat courses.

This is an example of what a 4-year degree plan might look like. It is not the official program checklist. In the case of any discrepancy between this program plan and the checklist, the checklist shall prevail. It is the student's responsibility to ensure they complete all program requirements as laid out in the approved checklist.

B.Sc. Degree *Chemistry Major - Life Sciences* - 4 Year Plan

✓	s.h.	YEAR 1 Fall
	1	FNDN 101
	3	RELS 110 or 160
	3	ENGL 103
	4	CHEM 103 or 111[3]
	4	BIOL 113[3]
Semester Total: 15		

✓	s.h.	YEAR 2 Fall
	3	Core[1]
	3	CHEM 221[3]
	3	PHYS 111[3]
	3	MATH 123
	3	Elective[4]
Semester Total: 15		

✓	s.h.	YEAR 3 Fall
	3	PHIL[2]
	3	Core[1]
	3	CHEM 384[3]
	3	CHEM 432
	3	BIOL 223[3]
Semester Total: 15		

✓	s.h.	YEAR 4 Fall
	3	Core[1]
	3	Core[1]
	3	CHEM 240[3]
	3	CHEM 357[3]
	3	NATS 482
Semester Total: 15		

✓	s.h.	YEAR 1 Spring
	3	FNDN 102
	3	RELS 111
	3	ENGL 104
	4	CHEM 104 or 112[3]
	4	BIOL 114[3]
Semester Total: 17		

✓	s.h.	YEAR 2 Spring
	3	FNDN 201
	3	CHEM 222[3]
	3	CHEM 230
	3	PHYS 112[3]
	3	MATH 124
Semester Total: 15		

✓	s.h.	YEAR 3 Spring
	3	RELS 112
	3	CHEM 321
	3	CHEM 386
	3	CHEM 431[3]
	3	Elective[4]
Semester Total: 15		

✓	s.h.	YEAR 4 Spring
	3	Core[1]
	3	CHEM 342
	3	CHEM 461
	3	Elective[4]
	3	Elective[4]
Semester Total: 15		

COURSE LEGEND

Core Courses

1. Core electives should be chosen as follows:
   - ONE Aesthetic and Performance Inquiry
   - ONE Cultural & Linguistic Inquiry
   - ONE Experiential & Embodied Inquiry
   - ONE Historical & Archival Inquiry
   - ONE Social & Global Inquiry
2. Choose from: PHIL 100, 103, 105, 106, 109, or 210.

Major Courses

3. Includes co-requisite lab

Major + Core Courses

3. Includes co-requisite lab

Ancillary Courses

3. Includes co-requisite lab

Ancillary + Core Courses

Electives

4. Choose a 300- or 400-level elective.

Summer Sessions are encouraged to reduce semester load and/or repeat courses.

This is an example of what a 4-year degree plan might look like. It is not the official program checklist. In the case of any discrepancy between this program plan and the checklist, the checklist shall prevail. It is the student's responsibility to ensure they complete all program requirements as laid out in the approved checklist.