

Student Name: \_\_\_\_\_ ID # \_\_\_\_\_

Advisor Name: \_\_\_\_\_ Anticipated Graduation Date: \_\_\_\_\_

## CHEMISTRY MAJOR: GRADUATE SCHOOL PREP PROGRAM CHECKLIST (122 s.h.) 2024-25 Academic Calendar

### 1. Inquiry: Ways of Knowing – Core Requirements (37 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	✓	COURSE	S.H.	NOTES
FOUNDATIONAL INQUIRIES (25 sem. hrs.)				Academic Writing Requirement <sup>1</sup>			
<i>Academic Research &amp; Writing</i>				WAYS OF KNOWING (12 sem. hrs.)			
	ENGL _____	3	Choose two of: ENGL 101, 102, 103, 104.	In addition to the courses on the left, students must take an additional 12 sem. hrs. from each of the following categories, 9 s.h. of which must be from outside of the student's major.			
	ENGL _____	3					
<i>Foundations</i>				<i>Aesthetic &amp; Performance Inquiry</i>			
	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.			3	Choose 3 sem. hrs. from the Aesthetic & Performance Inquiry category below.
	FNDN 102	3	Normally taken before year three.	<i>Cultural &amp; Linguistic Inquiry</i>			
	FNDN 201	3				3	Choose 3 sem. hrs. from the Cultural & Linguistic Inquiry category below.
<i>Logical &amp; Ethical Reasoning</i>				<i>Experiential &amp; Embodied Inquiry</i>			
	PHIL _____	3	Choose one of: PHIL 100, 103, 105, 106, 109, or 210.		**	**	Satisfied by CHEM 409 & 410.
<i>Religious &amp; Spiritual Thought</i>				<i>Historical &amp; Archival Inquiry</i>			
	RELS _____	3	Choose RELS 110 or 160. Recommended in 1st semester of the 1st year.			3	Choose 3 sem. hrs. from the Historical & Archival Inquiry category below.
	RELS 111	3		<i>Quantitative &amp; Computational Inquiry</i>			
	RELS 112	3			**	**	Satisfied by CHEM 112.
<i>Scientific Method &amp; Lab Research</i>				<i>Social &amp; Global Inquiry</i>			
	**	**	Satisfied by CHEM 111.			3	Choose 3 sem. hrs. from the Social & Global Inquiry category below.

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

### Ways of Knowing: Categories

<b>Aesthetic &amp; Performance Inquiry</b>	ART 181, 182, 250; 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.
<b>Cultural &amp; Linguistic Inquiry</b>	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).
<b>Historical &amp; Archival Inquiry</b>	ART 237, 238; ECON 306; GENV 312; HIST 107, 108, 135, 306, 339, 391; 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.
<b>Social &amp; Global Inquiry</b>	ANTH 101, 302; BUSI 311; ECON 311, 354; EDUC 345, 365; ENGL 348; GENV 111, 212, 322, 354; 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; THTR 348.

## 2. Required Chemistry Courses (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.			

## 3. Ancillary Courses (24 – 25 s.h.)

✓	COURSE	S.H.	NOTES	✓	COURSE	S.H.	NOTES
	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 220 or 230	3	PHYS 220 may only be taken if MATH 250 or a 300- or 400-level MATH course is also taken.

## 4. Elective Courses (14 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](http://twu.ca/advising).

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

Suggested elective: CMPT 140.

### NOTES:

- A total of 122 s.h. of credit, including a minimum of 42 s.h. of upper-level credit (24 s.h. in the major) is required to complete this degree. Students must have a minimum overall (cumulative) GPA of 2.0 to graduate.
- 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 April 30 of the year prior to your completion. For more information on the graduation process, please visit [twu.ca/graduation](http://twu.ca/graduation).

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

THIS CHECKLIST IS INTENDED TO ASSIST STUDENTS AND ADVISORS IN ENSURING THAT ALL REQUIREMENTS ARE MET. IT IS THE RESPONSIBILITY OF THE **STUDENT** TO MEET ALL REQUIREMENTS.

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

		YEAR 2	
✓	s.h.	Fall	
	3	Core <sup>1</sup>	
	3	PHIL <sup>2</sup>	
	3	CHEM 221 <sup>3</sup>	
	3	PHYS 111 <sup>3</sup>	
	3	MATH 223	
		Semester Total: 15	

		YEAR 3	
✓	s.h.	Fall	
	3	Core <sup>1</sup>	
	3	CHEM 322 <sup>1</sup>	
	3	CHEM 341	
	3	CHEM 432	
	3	MATH 250	
		Semester Total: 15	

		YEAR 4	
✓	s.h.	Fall	
	3	Core <sup>1</sup>	
	3	CHEM 240 <sup>3</sup>	
	3	CHEM 357 <sup>3</sup>	
	3	CHEM 384 <sup>3</sup>	
	1	CHEM 409	
	3	NATS 482	
		Semester Total: 16	

		YEAR 1	
✓	s.h.	Spring	
	3	FNDN 102	
	3	RELS 111	
	3	ENGL 104	
	4	CHEM 112 <sup>3</sup>	
	3	MATH 124	
		Semester Total: 16	

		YEAR 2	
✓	s.h.	Spring	
	3	FNDN 201	
	3	CHEM 222 <sup>3</sup>	
	3	CHEM 230	
	3	CHEM 461	
	3	PHYS 112 <sup>3</sup>	
		Semester Total: 15	

		YEAR 3	
✓	s.h.	Spring	
	3	Core <sup>1</sup>	
	3	CHEM 321	
	3	CHEM 370 <sup>3</sup>	
	3	CHEM 431 <sup>3</sup>	
	3	PHYS 220 or 230	
		Semester Total: 15	

		YEAR 4	
✓	s.h.	Spring	
	3	RELS 112	
	2	CHEM 410	
	3	CHEM 342	
	3	CHEM 358 <sup>3</sup>	
	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.

		YEAR 1		YEAR 2		YEAR 3		YEAR 4		YEAR 5		
✓	s.h.	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	Fall	
	1	FNDN 101		3	PHIL <sup>2</sup>	3	RELS 111 or 112	3	Core <sup>1</sup>	3	Core <sup>1</sup>	
	3	RELS 110 or 160		3	CHEM 221 <sup>3</sup>	3	CHEM 322 <sup>3</sup>	3	CHEM 240 <sup>3</sup>	3	CHEM 384 <sup>3</sup>	
	3	ENGL 103		3	PHYS 111 <sup>3</sup>	3	CHEM 341	3	CHEM 357 <sup>3</sup>	1	CHEM 409	
	4	CHEM 111 <sup>3</sup>		3	MATH 223	3	CHEM 432	3	NATS 482	3	MATH 250	
	3	MATH 123								3	Elective	
Semester Total: 14		Semester Total: 12		Semester Total: 12		Semester Total: 12		Semester Total: 13		Semester Total: 13		
		YEAR 1		YEAR 2		YEAR 3		YEAR 4		YEAR 5		
✓	s.h.	Spring	Spring	Spring	Spring	Spring	Spring	Spring	Spring	Fall	Fall	
	3	FNDN 102	3	FNDN 201	3	Core <sup>1</sup>	3	RELS 111 or 112	3	Core <sup>1</sup>	3	Core <sup>1</sup>
	3	ENGL 104	3	CHEM 222 <sup>3</sup>	3	CHEM 321	3	CHEM 342	3	CHEM 370 <sup>3</sup>	3	CHEM 370 <sup>3</sup>
	4	CHEM 112 <sup>3</sup>	3	CHEM 230	3	CHEM 431 <sup>3</sup>	3	CHEM 358 <sup>3</sup>	3	CHEM 386 <sup>3</sup>	3	CHEM 386 <sup>3</sup>
	3	MATH 124	3	CHEM 461	3	PHYS 220 or 230	3	Elective	3	CHEM 411	3	CHEM 411
			3	PHYS 112 <sup>3</sup>								
Semester Total: 13		Semester Total: 15		Semester Total: 12		Semester Total: 12		Semester Total: 12		Semester Total: 12		

## COURSE LEGEND

### Core Courses

- Core electives should be chosen as follows:  
 ONE Aesthetic and Performance Inquiry  
 ONE Cultural & Linguistic Inquiry  
 ONE Historical & Archival Inquiry  
 ONE Social & Global Inquiry

- Choose from: PHIL 100, 103, 105, 106, 109, or 210

### Major Courses

- Includes co-requisite lab

### Major + Core Courses

- Includes co-requisite lab

### Ancillary Courses

- 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 5-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.