

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

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

## MULTIDISCIPLINARY MAJOR in BIOTECHNOLOGY and CHEMISTRY CHECKLIST (125 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>				<b>WAYS OF KNOWING (12 sem. hrs.)</b>			
	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 BIOT 200.
<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 BIOL 113.			3	Choose 3 sem. hrs. from the Social & Global Inquiry category below.

<sup>1</sup>**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

<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.

April 2024

## 2. Required Biology & Biotechnology Concentration Courses (35 s.h.)

✓	COURSE	S.H.	NOTES	✓	COURSE	S.H.	NOTES
	BIOL 113*	4	Includes a one s.h. lab (BIOL 198) as a co-requisite.		BIOL 371	3	
	BIOL 114*	4	Includes a one s.h. lab (BIOL 199) as a co-requisite.		BIOL 372	3	
	BIOL 223	3			BIOL _____	3	Choose from BIOL 433, 474, or 475.
	BIOL/BIOT 290	3			BIOL/BIOT 470	3	
	BIOL _____	3	Choose from: BIOL 333 or 334.		BIOL/BIOT 490	3	
	BIOL 336	3		*Minimum grade of C required to progress to BIOL 223.			

## 3. Required Chemistry Courses (35 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 322	3	
	CHEM 112	4	Includes a one s.h. lab (CHEM 199) as a co-requisite.		CHEM 357	3	
	CHEM 221	3			CHEM 358	3	
	CHEM 222	3			CHEM 384	3	
	CHEM 230	3			CHEM 386	3	
	CHEM 321	3					

## 4. Required Internships (3 s.h.)

✓	COURSE	S.H.	NOTES
	BIOL/BIOT 200	3	After year two.

## 5. Required Co-ops (must complete two) *BIOL/BIOT 300 may substitute one of the required co-ops.*

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

## 6. Ancillary Courses (15 s.h.)

✓	COURSE	S.H.	NOTES	✓	COURSE	S.H.	NOTES
	MATH 123	3			PHYS 111	3	
	MATH/STAT 203	3			PHYS 112	3	
	NATS 481	3					

## 7. Elective Courses (0 s.h.)

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

### NOTES:

- A total of 125 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 2.5 to graduate, including a minimum GPA of 2.5 in all required courses for 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 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 the written consent of the Minister of Advanced Education effective March 9, 2006, having undergone a quality assessment process and been found to meet the criteria established by the minister. Nevertheless, prospective students are responsible for satisfying themselves that the program and the degree will be appropriate to their needs (for example, acceptable to potential employers, professional licensing bodies, or other educational institutions).*

		YEAR 1
✓	s.h.	Fall
	1	FNDN 101
	3	RELS 110 or 160
	3	ENGL <sup>1</sup>
	4	BIOL 113 <sup>2</sup>
	4	CHEM 111 <sup>3</sup>
Semester Total: 15		

		YEAR 2
✓	s.h.	Fall
	3	FNDN 201
	3	Core <sup>2</sup>
	3	BIOL 223
	3	CHEM 221
	3	MATH 123
Semester Total: 15		

		YEAR 3
✓	s.h.	Fall
	3	Core <sup>2</sup>
	3	BIOL 371
	3	CHEM/BIOL 384
	3	CHEM 322
	3	PHYS 111
Semester Total: 15		

		YEAR 4
✓	s.h.	Fall
	3	Core <sup>2</sup>
	3	BIOL <sup>4</sup>
	3	BIOL <sup>4</sup>
	3	CHEM 357
	3	NATS 481
Semester Total: 15		

		YEAR 1
✓	s.h.	Spring
	3	FNDN 102
	3	RELS 111
	3	ENGL <sup>1</sup>
	4	BIOL 114 <sup>3</sup>
	4	CHEM 112 <sup>3</sup>
Semester Total: 17		

		YEAR 2
✓	s.h.	Spring
	3	BIOL 290
	3	BIOT 200
	3	CHEM 222
	3	CHEM 230
	3	STAT 203
Semester Total: 15		

		YEAR 3
✓	s.h.	Spring
	3	BIOL 372
	3	BIOL 423 <sup>5</sup>
	3	CHEM/BIOL 386
	3	CHEM 321
	3	PHYS 112
Semester Total: 15		

		YEAR 4
✓	s.h.	Spring
	3	Core <sup>2</sup>
	3	Core <sup>2</sup>
	3	BIOL <sup>4</sup>
	3	BIOL 470 <sup>6</sup>
	3	CHEM 358
Semester Total: 15		

## COURSE LEGEND

### Core Courses

1. Choose from: ENGL 101, 102, 103, 104
2. Core electives should be chosen as follows:
  - ONE Aesthetic and Performance Inquiry
  - ONE Cultural & Linguistic Inquiry
  - ONE Historical & Archival Inquiry
  - ONE Social & Global Inquiry

### Major Courses

3. Includes co-requisite lab
4. Choose a 300- or 400-level BIOL course
5. Currently offered in the spring term of even years
6. Currently offered in the spring term of odd years

### Major + Core Courses

3. Includes co-requisite lab

### Ancillary Courses

### 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.*