Student Name:	ID#:
Advisor Name:	Anticipated Graduation Date:

# **BIOTECHNOLOGY MAJOR CHECKLIST (122 s.h.)**

### 2019 - 20 Academic Calendar

This program checklist is intended to assist students and advisors in ensuring that all university and program requirements are met. It is the responsibility of the **student** to ensure that all requirements for the degree have been met.

## 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 credit. See Academic Calendar for details (twu.ca/calendar)

✓	COURSE	S.H.	NOTES	✓	COURSE	S.H.	NOTES		
FO	UNDATIONA	UIRIES (25 sem. hrs.)	Academic Writing Requirement <sup>2</sup>						
	Academic Research & Writing				WAYS OF KNOWING (12 sem. hrs.)				
ENGL 3 Choose 2 courses (6 sem. hrs.) from ENGL							e left, students must take an additional 12 sem.		
	ENGL	3	101, 102, 103, 104				each of the following four categories. *At least 9 of the student's major.		
F	oundations			,	Aesthetic & Per	formanc	e Inquiry		
	FNDN 101	1	Compulsory during the first semester of the first year. <sup>1</sup>			3	Choose 3 sem. hrs. from the Aesthetic & Performance Inquiry category below.		
	FNDN 102	Normally taken before year 3.	Cultural & Linguistic Inquiry						
	FNDN 201	3				3	Choose 3 sem. hrs. from the Cultural & Linguistic Inquiry category below.		
L	ogical & Ethica	l Reaso	ning	Experiential & Embodied Inquiry					
	PHIL	3	Choose one of PHIL 103, 105, 106, 109 or 210	**	**	**	Included in Program Requirements.		
F	Religious & Spir	ritual The	ought	Historical & Archival Inquiry					
	RELS 101	3	Students who are unfamiliar with the biblical, theological and historical narrative			3	Choose 3 sem. hrs. from the Historical & Archival Inquiry category below.		
	RELS 102	3	of Christianity may take RELS 100 in place of either RELS 101 or 102.	(	Quantitative & C	tional Inquiry			
	RELS	3	Choose one of RELS 160, 271, 272	**	**	**	Included in Program Requirements.		
Scientific Method & Lab Research			Social & Global Inquiry						
**	**	**	Included in Program Requirements.			3	Choose 3 sem. hrs. from the Social & Global Inquiry category below.		

#### **Aesthetic & Performance Inquiry**

Choose 3 semester hours from: 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 Lessons

#### **Cultural & Linguistic Inquiry**

Choose 3 semester hours from: ANTH 210, 395; EDUC 496; ENGL 334, 482; GREE 235; HEBR 245; HIST 237; POLS 237; RELS 235, 245; SOCI 395; any World Languages & Cultures course (CHIN, FREN, GERM, JAPA, RUSS, SPAN)

#### **Historical & Archival Inquiry**

Choose 3 semester hours from: ART 237, 238; ECON 306; GENV 312; HIST 107, 108, 109, 111, 112, 135, 136, 230, 251, 252, 306, 312, 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

#### Social & Global Inquiry

Choose 3 semester hours from: 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 108, 220, 310, 320; POLS 211, 310, 312, 320, 493; PSYC 399; RELS 285, 381, 384, 386, 476; SOCI 101; THTR 348

<sup>&</sup>lt;sup>1</sup> FNDN 101 is compulsory during the first semester of the first year for all new students unless they have a minimum 24 sem. hrs. initial transfer credit.

<sup>&</sup>lt;sup>2</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.

2. Required Biology and Biotechnology Courses (4	45 S.	h.
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✓	COURSE	S.H.	NOTES	<b>√</b>	COURSE	S.H.	NOTES
	BIOL 113*	3	or (BIOL 103, 104 & 105)+		BIOL 372	3	
	BIOL 114*	3	or (BIOL 103, 114)*		BIOL 384	3	
	BIOL 223	3	Take in Year 2		BIOL 386	3	
	BIOL/BIOT 290	3			BIOL/BIOT 390	3	
	BIOL 333	3			BIOL 423	3	
	BIOL 334	3			BIOL/BIOT 470	3	
	BIOL 336	3			BIOL/BIOT 490	3	
	BIOL 371	3					

<sup>&</sup>lt;sup>†</sup> minimum grade of B required in BIOL 103 to progress to BIOL 114.

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

✓	COURSE	S.H.	NOTES	✓	COURSE	S.H.	NOTES
	BIOL/BIOT 100	1	Taken in the Spring semester of Year 1		BIOL/BIOT 200	2	In Industry during or after Year 2

## 4. Required Co-Ops (must complete two)\*

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

<sup>\*</sup>BIOL/BIOT 300 may substitute one of the required co-ops.

### 5. Ancillary Courses (33 s.h.)

✓	COURSE	S.H.	NOTES	✓	COURSE	S.H.	NOTES
	CHEM 111	3	Or CHEM 103		MATH 102	3	
	CHEM 112	3	Or CHEM 104		MATH 123	3	
	CHEM 221	3	Take in Year 2		NATS 481	3	
	CHEM 222	3	Take in Year 2		PHYS 111	3	
	CHEM 357	3			PHYS 112	3	
	CHEM 358	3					

# 6. Elective Courses (4 s.h.)

✓	SUBJECT	COURSE #	S.H.	NOTES	✓	SUBJECT	COURSE #	S.H.	NOTES

<sup>&</sup>gt; NOTE: All Biotechnology courses are cross-listed as Biology courses, including Biotechnology practica.

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).

<sup>\*</sup> minimum grade of C in first year Biology courses required to progress to BIOL 223.

<sup>&</sup>gt; NOTE: A total of 122 s.h. of credit, including a minimum of 42 s.h. (24 s.h. in the major) of upper-level credit is required for graduation. A minimum overall (cumulative) GPA of 2.50 is required for graduation, with a minimum 2.50 GPA in all required courses for the major.

<sup>&</sup>gt; NOTE: In order to be eligible for graduation you must complete an Application for Graduation via the Student Portal and submit a completed checklist to the Office of the Registrar by April 30<sup>th</sup> of the year prior to your completion (there is no fee to apply for graduation). Once your complete application has been received, a degree audit will be completed for you. This audit will confirm which courses are still outstanding in order for you to complete your degree.