

DEPARTMENT OF ALLIED HEALTH SCIENCES
 DIAGNOSTIC GENETIC SCIENCES PROGRAM
 (Sample Sequence of Courses^{§#})
 CATALOG YEAR Beginning Fall 2019

YEAR ONE

FALL		SPRING			
CHEM 1124Q or 1127Q	General Chemistry I	4	CHEM 1125Q or 1128Q	General Chemistry II	3-4
## ENGL 1010 or 1011		4	BIOL 1107	General Biology I	4
## MATH 1060Q, or above		3-4	### General Education		3
### General Education		3	### General Education		3
UNIV 1800 FYE (not required, but strongly recommended)		1	Elective		3
		15-16 credits			16-17 credits

YEAR TWO

FALL		SPRING			
CHEM 2241 or 2443	Organic Chemistry	3	MCB 2610	Fund. of Microbiology	4
STAT 1000Q or 1100Q	Statistics	4	###CHEM 2444† (if taking CHEM 2443) or Elective		3
MCB 2400 or 2410	Human Genetics/Genetics	3	### General Education W course		3
### CHEM 2242† (if taking CHEM 2241) or Elective		1-3	### General Education		3
### General Education		3	Elective		3
		14-16 credits			16 credits

†DGS does not require a 2nd Orgo- **HIGHLY** recommended if considering grad programs in medicine, genetics, or genetic counseling

YEAR THREE

Admission into the junior/senior year requires separate application

FALL %		SPRING %			
AH 2001	Medical Terminology	1	DGS 4224	Cancer Cytogenetics	4
AH 3121	Immunology	3	DGS 4234W	Dx. Molecular Technologies	3
DGS 3222	Medical Cytogenetics	4	DGS 4235	Lab. Molecular Diagnostics	2
DGS 3223	Laboratory in Cytogenetics	3	DGS 4246	Contemp. Issues Human Genetics	3
Electives		3	MLSC 4500	Lab Operations	2
		14 credits			14 credits

Prof Dev Seminar Tuesdays 4-5 pm

Prof Dev Seminar Tuesdays 5-6 pm

YEAR FOUR

FALL %		SPRING (Clinical Affiliation - January 2 – June 30)			
AH 4241	Research for the Health Prof.	2	Cytogenetics Concentration:		
DGS 4236	Case Studies Molecular Path	1	DGS 4810	Suspension Cell Culture, Harvest, & Analysis	6
<i>Cytogenetics Concentration</i>			DGS 4820	Attached Cell Culture, Harvest, & Analysis	6
DGS 4248	Adv Karyo & Rpt Writing	2	DGS 4830	Molecular Cytogenetic Technologies	3
<i>Molecular Concentration</i>			DGS 4850	Investigative Topics	1
Molecular Elective	Pre-approved by advisor	2-3	(or DGS 4997 Honors Research)		(3)
Electives		9			16-18 credits
e.g. ANSC 3323, MCB 3211, MCB 3412, PNB 3340					
or others appropriate to career track or interest		14-15 credits			

Prof Dev Seminar TBA

Molecular Diagnostics Concentration:

DGS 4402	Spec Prep, Nuc. Acid Isolation	4
DGS 4503	Amplification Methods	6
DGS 4604	Sequencing and Analysis	3
DGS 4850	Investigative Topics	1
(or DGS 4997 Honors Research)		(3)
<i>One of the following elective courses:</i>		2
DGS 4510	In Situ Hybridization Methods	
DGS 4512	Cloning Techniques	
DGS 4513	Blotting Techniques	
DGS 4515	Mol. Applications in Microbiology	
		16-18 credits

Total credits depend upon electives selected; a minimum of **120 credits are required for graduation**

[§]This plan of study is a sample. Actual plan of study subject to change based on advising and student goals.

#This plan assumes the **foreign language** requirement is completed prior to admission to the university. If a language is required, students may elect to take these courses as electives.

***W course requirement:** Students are required to take two "W" skill coded courses. DGS 4234W satisfies the "W" in the major. Students **MUST** take the second "W" as a general education or elective.

Environmental Literacy: Students may complete the Environmental Literacy requirement as either a general education requirement, elective or DGS major requirement.

Q course placement is based on Math SAT score and Class Rank. Please consult with your academic advisor prior to registering for Q courses.

These courses need not be taken in the semester indicated; however it is strongly recommended that they be completed prior to the junior year.

% Students attend weekly 1-hr professional leadership & development seminars with faculty and guests (Schedule posted prior to each semester's registration start)