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**Biology Articulation Committee Meeting, May 9<sup>th</sup> and 10<sup>th</sup> 2023**

Host Institution: UBCO

Report from Kwantlen Polytechnic University

Articulation Rep: Monica De Boer

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**BIOLOGY Qualifying**

Course # (credits)	Course Name	Text(s)	2022-2023 Enrollment	Hours per week	Pre-requisites	Notes	Course Instructor(s)
BIOQ 1098 (4)	Foundations of Biology	Johnson, George. The Living World. McGraw-Hill. Latest edition.	Max 19 F2022 8 S2023 10 Sum2021 not offered	4 hr lec 2 hr lab	English 12 <i>or equivalent</i> (see Note 1)	Classes: Blended Asynchronous	Assogba
BIOQ 1099 (4)	Foundations of Human Biology	Johnson, George. The Living World. McGraw-Hill. Latest edition. (Assogba) OR Mader, Sylvia S. Inquiry into Life. McGraw-Hill. Latest edition. (Kaan)	Max 19/section F2022 2 sections:17 S2023 2 sections: 20 Sum2023 2 sections: 38 (as of 4/28)	4 hr lec 2 hr lab	Same as BIOQ 1098	Classes: Blended Asynchronous;Online Synchronous	Assogba Kaan

Note 1 Prerequisites for BIOQ1098 and BIOQ 1099: One of the following: (a) English 12, (b) English 12 First Peoples; (c) English 11 (B), (d) ENGQ 1099; (e) ENGQ 1091, (f) ENGQ 1092, (g) ENGQ 1089, (h) ENGQ 0084 and ENGQ 0085, (i) ELST 0381 (B-), (j) Language Placement Index (LPI) Score (Essay 26 with EU 6+ and Reading Comprehension 16), (k) Academic and Career Preparation (ACP) English Assessment placement at Level 09, (l) KPU English Placement (EPT) into ENGQ 1091 or ENGQ 1092 or ENGQ 1099, (m) International English Language Testing System (IELTS) overall Band 6.0 (Listening Band 6.0, Reading Band 6.0, Writing Band 6.0, and Speaking Band 6.0), (n) Test of English as a Foreign Language (TOEFL) iBT Band 80

## BIOLOGY NONMAJORS

Course # (credits)	Course Name	Text(s)	2022-2023 Enrollment	Hours per week	Prerequisites	Notes	Course Instructor(s)
BIOL 1112 (4)	Biology Today	1. Concepts in Biology. Open Stax, Fowler, Roush, and Wise. Latest edition. 2. BIOL1112 Laboratory Manual, Surrey, BC: Kwantlen Polytechnic University. Latest Edition	Max 35 F2022 30	3h lec 2h lab	None	Classes: In person	Sanchez Vazquez

## BIOLOGY Courses

Class size is **Max 35** unless otherwise stated

Course # (credits)	Course Name	Text(s)	2022-2023 Enrollment	Hours per week	Prerequisites	Notes	Course Instructor(s)
BIOL 1110 (4)	Introductory Biology I	1. Reese, J.B. et al. <i>Campbell's Biology</i> . Ontario, Canada: Pearson Canada Inc. Latest Canadian Edition. 2. <i>Biology 1110 Introductory Biology I Laboratory Manual</i> . Langley, Richmond & Surrey, BC: Kwantlen Polytechnic University. Latest Edition.	F2022 10 sections: 258 S2023 9 sections: 200 Sum2023 2 sections: 69 (as of 5/2)	4h lec 3h lab	English 12 (B) or equivalent	Classes: In Person; Blended Synchronous; Blended Asynchronous	Harris, Marcotte, Tunbridge, Morkonen, Doering, Haratikia, Lange, Vent-Schmidt, Sanchez Vazquez
BIOL 1210 (4)	Introductory Biology II	1. as per BIOL 1110. 2. <i>Biology 1210 Introductory Biology II Laboratory Manual</i> . Langley, Richmond & Surrey, BC: Kwantlen Polytechnic University. Latest Edition.	F2022 3 sections: 67 S2023 6 sections: 124 Sum2023 1 section 35 (as of 5/2)	4h lec 3h lab	BIOL 1110 and [English 12 (B) or equivalent]	Classes: In Person; Blended Synchronous;	DeBella, DeBoer, Haratikia, Schuetz, Myhre, Lange, Kaan, Sanchez Vazquez
BIOL 2320 (4)	Genetics	Sanders and Bowman. <i>Genetic Analysis: An Integrated Approach</i> , Latest Ed.	F2022 15 S2023 2 sections: 33 Sum2023 not offered	4h lec 3h lab	BIOL 1110 and BIOL 1210	Classes: In Person	DeBella, Morkonen.

BIOL 2321 (4)	Cell Biology	<ol style="list-style-type: none"> <li>1. Alberts et al.. <i>Molecular Biology of the Cell</i>. Latest Edition.</li> <li>2. Cell Biology 2321 Laboratory Manual. Richmond &amp; Surrey, BC. Latest Edition.</li> </ol>	F2022 2 sections: 46 S2023 28 Sum2023 34 (as of 5/2)	4h lec 3h lab	BIOL 1110 and BIOL 1210 and CHEM 1110	Classes: In Person; Blended Synchronous	Magee, Lange
BIOL 2322 (4)	Ecology	<ol style="list-style-type: none"> <li>1. Ricklefs, R.E. <i>The Economy of Nature</i>. New York, NY: Freeman. Latest Edition. OR</li> <li>2. Cain et al. <i>Ecology</i>. Sunderland, MA, USA: Sinauer Associates, Inc. Latest Edition.</li> <li>3. BIOL 2322 Lab Manual. Kwantlen Polytechnic University. Latest Edition</li> </ol>	Max 20 F2022 2 sections: 20 Sum2023 2 sections: 38 (as of 5/2)	4h lec 4h lab	BIOL 1110 and BIOL 1210	Classes: In Person; Blended Synchronous	Marcotte Tunbridge, Keever
BIOL 2330 (4)	Microbiology	<ol style="list-style-type: none"> <li>1. Wiley, Joanne M., Sherwood, Linda M., and Woolverton, Christopher J. <i>Microbiology</i>. McGraw-Hill Publishing Co. Latest Edition.</li> <li>2. Harley, John P. <i>Laboratory Exercises in Microbiology</i>. McGraw-Hill Publishing Co. Latest Edition</li> </ol>	Max 40 F2022 28 S2023 28	4h lec 3h lab	BIOL 1210 and CHEM 1110	Classes: In Person	De Boer
BIOL 2421 (3)	Cellular Biochemistry	Nelson and Cox. <i>Lehninger Principles of Biochemistry</i> Latest Ed.	F2022 11 S2023 15	4h lec	All of: BIOL 1110, BIOL 1210, BIOL 2321, CHEM 2320	Classes: Blended Asynchronous	Magee

### Third Year 3000-4000

Class Size is **Max 20** unless otherwise noted

Course # (credits)	Course Name	Text(s)	2022-2023 Enrollment	Hours per week	Prerequisites	Notes	Course Instructor(s)
BIOL 3110 (4)	Animal Behaviour	1. Alcock, J. <i>Animal Behaviour</i> . Latest Edition, or equivalent. 2. Biology 3110 Laboratory Manual. Surrey,BC: KPU. Latest Edition. 3. Martin and Bateson. <i>Measuring Behaviour: An Introductory Guide</i> . Latest Edition.	F2022 4	4h lec 3h lab	BIOL 2322 Corequisite BIOL 3180	Classes: Blended Synchronous	Marcotte
BIOL 3130 (4)	Foundations of Human Anatomy & Physiology	1. Marieb-& Hoehn. <i>Human Anatomy and Physiology Latest Edition</i> with Optional <i>Coloring Workbook</i> . 2. Wheater's Functional Histology. Latest Edition. 3. Biology 3130 Laboratory Manual. KPU. Latest Edition.	F2022 20	4h lec 3h lab	Both (a) BIOL 2321 and, (b) BIOL 2421 Corequisite BIOL 3321	Classes: Blended Asynchronous	Haratikia
BIOL3165 (3)	Conservation Biology	Primack and Sher. <i>An Introduction to Conservation Biology</i> . Sinauer Associates, Inc. Latest Edition	F2022 5	4h lec	BIOL 2322	Classes: In person	Harris
BIOL 3180 (3)	Life Science Research Methods	Whitlock M.C., and Schluter D., <i>Analysis of Biological Data</i> . Latest Ed.	F2022 10 Sum2023 30 Condensed (as of 05/03)	4h lec	BIOL 1210 Corequisite MATH 2335	Classes: In person; Blended Synchronous	Mokkonen
BIOL 3215 (4)	Zoology	Hickman, Keen and Larson <i>Integrated Principles of Zoology Latest ed.</i>	S2023 2	4h lec 3h lab	BIOL 2322	Classes: In person	Marcotte
BIOL 3225 (4)	Biology of Plants: An Ecological and Evolutionary Perspective	1. Ray, Eichhorn. <i>Biology of Plants. Latest ed.</i> 2. Pojar, MacKinnon. <i>Plants of Coastal British Columbia. Latest ed.</i>	S2023 6	4h lec 3h lab	BIOL 2322	Classes: In person	Schuetz
BIOL 3320 (4)	Molecular Genetics	Griffiths, Wessier, Carol, Doebley. <i>Introduction to Genetic Analysis. Latest ed.</i>	F2022 10	4h lec 3h lab	BIOL 2320	Classes: In person	Adams

BIOL 3321 (4)	Advanced Cell and Molecular Biology	Alberts et al. <i>Molecular Biology of the Cell</i> . Latest Edition.	F2022 24 (Max 35)	4h lec 3h lab	BIOL 2321 BIOL 2421	Classes: In person	De Boer
Course # (credits)	Course Name	Text(s)	2022-2023 Enrollment	Hours per week	Pre-requisites	Notes	Course Instructor(s)
BIOL 3330 (4)	Microbiology 2	Wiley, Sherwood, Wolverton. <i>Prescott's Microbiology Latest ed.</i>	S2023 20	4h lec 3h lab	BIOL 2330	Classes: In person	De Boer
BIOL 3421 (3)	Molecular Biochemistry	Nelson and Cox. <i>Lehninger Principles of Biochemistry Latest Ed.</i>	S2023 22 (Max 35)	4h lec	BIOL 2421 CHEM 2420	Classes: In person	Magee

#### Fourth Year 4000+

Class Size is Max 20 unless otherwise noted

Course #	Course Name	Text(s)	2022-2023 Enrollment	Hours per week	Pre-requisites	Notes	Course Instructor(s)
BIOL 4130 (4)	Human Cardiovascular, Respiratory and Nervous Systems	as per BIOL 3130	S2023 21	4h lec 3h lab	BIOL 3160 BIOL 3321	Blended Asynchronous	Bassam
BIOL 4140 (4)	Animal Physiology	Moyes C. D and Schulte P.M. <i>Principles of Animal Physiology.. Pearson. Latest edition</i>	F2022 3	4h lec 3h lab	BIOL 2321 BIOL 3215	Ran as directed studies	Myhre
BIOL 4150 (3)	Evolutionary Biology	Herron, J.C. and Freeman, S. <i>Evolutionary Analysis. Pearson. Latest Edition</i>	Cancelled	4h lec	BIOL 2320 BIOL 2322		
BIOL 4199 (3)	Research Project 1	None	Enrollment based upon number of faculty supervisors F2022 6	3h lec	BIOL 3180 and 2-four credit courses at the BIOL 3100 level or higher, and permission of the instructor	Classes: In person Required Proposal	Davison

BIOL 4230 (4)	Human Gastrointestinal, Excretory and Reproductive Systems	as per BIOL 3130	F2022 16	4h lec 3h lab	BIOL 3160 BIOL 3321	Classes: In person	Bassam
BIOL 4235 (3)	Marine Biology	Levinton, J.S. <i>Marine Biology: Function, Biodiversity, Ecology. Latest edition</i>	S2023 7	2h lec 3h lab	BIOL 3215 BIOL 3180	Classes: In person Includes Marine Field Trip	Marcotte
BIOL 4245 (4)	Developmental Biology	1. Barresi and Gilbert. <i>Developmental Biology. Latest edition. Sinauer Associates, Inc.</i> 2. Biology 4245 Lab Manual, KPU, Latest Edition	S2023 3	4h lec 3h lab	BIOL 2320 BIOL 2421 BIOL 3180	Classes: In person	Myhre
BIOL 4255 (3)	Bioinformatics	Andreas D. Baxevanis and B.F. Francis Ouellette. <i>Bioinformatics, A Practical Guide to the Analysis of Genes and Proteins. Wiley. Latest edition</i>	Not offered	2h lec 2 h computer lab	BIOL 2320 BIOL 2421 BIOL 3180		
BIOL 4299 (3)	Research Project 2	None	S2023 6	Lab	BIOL 4199	Required Project	Davison
BIOL 4320 (3)	Human Genetics	Tom Strachan and Andrew Read. <i>Human Molecular Genetics. Latest Edition</i>	S2023 9 (Max 35)	3h lec	BIOL 3320	Classes: In person	Davison
BIOL 4900 (3)	Special Topics (Introduction to Computational Biology)	Text(s) at the discretion of the instructor	S2023 9	3h lec	4 courses in BIOL or HSCI at the 3000 level or higher including BIOL 3180, or permission of instructor	Classes: Online Synchronous	Inglis

## **Biology Department Faculty Members includes Health Science**

Paul Adams PhD.

Barnabe D. Assogba PhD.

Aneisha Collins-Fairclough PhD, MPH

Ann Marie Davison PhD.

Leah DeBella PhD.

Monica De Boer PhD

Kelsie Doering PhD.

Greg Harris MSc.

Ali Haratikia PhD

Jane Hobson PhD.

Nick Inglis PhD.

Amy Jeon PhD.

Philomena Kaan PhD

Carson Keever PhD

Michael Kiraly PhD

Christian Lange PhD

Kaylee Magee PhD

Megan Marcotte PhD.

Mika Morkkonen PhD.

Layne Myhre PhD (**Biology Co-Chair Elect**)

Bassam Nyaeme MD

Matthew Rolheiser MSc

Diego Sanchez Vazquez MD, MPH

Mathias Schuetz PhD

Marjorie Sorensen PhD

Nicole Tunbridge MSc (**Biology Co-Chair Elect**)

Cayley Velazquez PhD RD (**HSCI Co-Chair Elect**)

Jens Vent-Schmidt PhD

## **NOTES**

### **Retirements this past year:**

Jane Hobson (May 2022)  
Andrea Sussman (Sept 2022)  
Greg Harris (Jan 2023)

### **New Faculty**

We are presently conducting a search for two regular full-time faculty to join our Department (BIOL and HSCI) for September 1<sup>st</sup>.

### **Enrollment**

There has been a decrease in the number of Biology students in the past few years, resulting in some of our upper level courses having very low numbers, or being cancelled as a result. Our summer enrollment in our first year Biology courses however is high, so we are hopeful that these numbers will increase in the future.

### **Program Changes**

The requirement of English 12 with a B for our introductory biology courses (BIOL 1110 and BIOL 1210) has been changed to a C+ as of September 1<sup>st</sup>. This keeps the prerequisites required for our first year biology courses consistent with the general KPU entrance requirements.

BIOL 3180 has been approved to have the writing intensive (WI) designation as of September 1<sup>st</sup>.

## **NEWS**

Our Biology degree has now been accredited with the BC College of Applied Biology. Students graduating this year can register to be Biologists-in-Training (BIT), or as Registered Professional Biologists (RPBIO) once they have acquired three years of job experience.

The Applied Genomics Centre (AGC) at the Surrey campus (Director: Dr. Paul Adams) continues to give fantastic research opportunities to our Biology and Health Science students. There were six Honors projects being done out of the AGC this year from our department. In addition the AGC employed sixteen of our current KPU students as research assistants in the past year.