

BACHELOR OF SCIENCE – BIOLOGICAL SCIENCES
DONALD SCHOOL OF BUSINESS, SCIENCE AND COMPUTING

UPDATED: July 2023

You are responsible for ensuring that your registration is complete and appropriate and that your course choices comply with the program to which you have been admitted at Red Deer Polytechnic and/or to the university to which you wish to transfer (if applicable). You are cautioned that any changes to your courses, your major or your transfer destination may adversely affect your transferable credit (if applicable), admission requirements for future programs, or eligibility to graduate from Red Deer Polytechnic. Please consult with an Advisor if you have any questions.

Students in university transfer programs are strongly advised to refer to the calendar of the university to which they wish to transfer and should contact appropriate university departments as required.

ADMISSION REQUIREMENTS AND PROGRAM DESCRIPTION

- See the [Academic Calendar](#)

WHAT IS THIS GUIDE?

- This is an Academic Planning Guide, prepared by the Student Connect Centre to help you register for courses towards your desired program.
- If you are transferring to another institution to complete your degree, we strongly advise that you read the Academic Calendar of your destination institution for full information.

GRADUATION REQUIREMENTS

- Students must earn a minimum letter grade of D in each course unless that course is a prerequisite for a 3000- or 4000-level course in the program, in which case they must earn a letter grade of C-.
- Students in the Bachelor of Science in Biological Sciences degree program must pass all courses, achieve a minimum cumulative GPA of 2.0, and complete a minimum of 120 credits as follows:
 - 60 Credits in Biological Sciences (*required courses*)
 - 24 Credits in other Sciences (*required courses*)
 - 3 Credits in English (*required course*)
 - 6 Credits in Humanities (*electives*)
 - 6 Credits in Social Science (*electives*)
 - 3 Credits in Arts and Science (*elective*)
 - 3 Credits in Wellness (*elective*)
 - 3 Credits in Indigenous Studies (*elective*)
 - 12 Credits in open electives
- Students must earn a minimum letter grade of D in each course unless that course is a prerequisite for a 3000- or 4000-level course in the program, in which case they must earn a letter grade of C-.

WHAT IS A TERM? TERMS ARE THE PERIOD IN WHICH YOUR STUDIES TAKE PLACE. AT RDP, WE OFFER FOUR TERMS.

- Fall term (September through December)
- Winter Term (January through April)
- Spring term (May through June): Spring term is an optional, condensed term. Course offerings are limited.
- Summer Term (July through August): Summer term is an optional, condensed term. Course offerings are limited.

HOW MANY COURSES SHOULD I TAKE A TERM?

- The maximum number of courses you can take in the Fall or Winter terms is 5 courses and 2 courses in the Spring (optional).
- To complete your program in four years, you would need to take the maximum number of courses per term (5 courses in the Fall and 5 courses in the Winter), or 10 course per year. Some students will complete 10 courses in a year by taking 4 courses in the Fall, 4 courses in the Winter, and 2 courses in the Spring (or a combination thereof).
- We encourage you to find the best course load for you to be successful in your courses and your program!
- When determining your course load keep your funding in mind, if applicable. For course load requirements for funding purposes, please visit www.rdpolytech.ca/psfunding.

WHAT HAPPENS IF I TAKE LESS THAN 10 COURSES A YEAR?

- You may need an extra term or year to complete your program.

WHAT IF I COMPLETED COURSES AT ANOTHER POST-SECONDARY INSTITUTION?

Once you are admitted to RDP, you can then apply to have your post-secondary courses assessed for transfer credit through our [Recognition of Prior Learning Office](#). Once admitted to RDP you can complete an [RPL application form](#), provide the Polytechnic Assessors with any and all transcripts, course outlines/descriptions, or other documentation necessary to support your PLAR application.

NOTE: To qualify for a Red Deer Polytechnic program credential, students must complete at least 50% of the credit requirements for the credential through enrolment in RDP courses.

REGISTRATION AND PROGRAM AUDIT

- Refer to the **Registration** tab on your Loop account to view **Registration Tips and Tricks** for information on:
 - Registering in classes
 - Waitlisting
 - Checking Prerequisites and Corequisites
 - Courses listed as **prerequisites** must be completed before you start the course in question.
 - Courses listed as **co-requisites** must be taken at the same time as the course in question.
 - Viewing Your Schedule
 - And much more!
- You can also see for yourself exactly which criteria each course will meet, by using Grad Tracker. To access this, log in to the Loop and select Online Services→ Student Services→ Grad Tracker.
- After you have completed your registration, if you would like an advisor to review your registration please submit a [Registration Review Form](#).

SUGGESTED FOUR YEAR PROGRAM SEQUENCE

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
BIOL 217	BIOL 301	BIOL 351	BIOL 3201
BIOL 218	BIOL 317	BIOL 370	BIOL 3801
CHEM 211	BIOL 318	BIOL 3101	BIOL 4491
CHEM 212	BIOL 352	BIOL 3301	BIOL 4891
MATH 202	BIOL 360	BIOL 3401	BIOL 4401
PHYS 205	BIOC 393	BIOL 3411	BIOL 4901
STAT 251	CHEM 351	Social Science Elective	BIOL 4902
ENGL 219	SCIE 2101	Arts and Science Elective	Elective
Humanities Elective	Humanities Elective	Indigenous Studies Elective	Elective
Social Science Elective	Wellness Elective	Elective	Elective

SUGGESTED YEAR ONE COURSE SEQUENCE

FALL	WINTER
BIOL 217 <i>(Can be taken either term)</i>	BIOL 218 <i>(Can be taken either term)</i>
CHEM 211	CHEM 212
PHYS 205	MATH 202 or 203 <i>(Can be taken either term)</i>
ENGL 219 <i>(Can be taken either term)</i>	STAT 251 <i>(Can be taken either term)</i>
Elective <i>(Can be taken either term)</i>	Elective <i>(Can be taken either term)</i>

GRADUATION CHECKLIST

REQUIREMENT		PRE/CO-REQ	COMMENTS	DONE
CORE BIOLOGICAL SCIENCES COURSES				
BIOL 217 (3 Credits)	Introduction to Cell Biology	BIOL 30 & CHEM 30		
BIOL 218 (3 Credits)	Evolution and Biological Diversity	BIOL 30		
BIOL 301 (3 Credits)	Molecular Cell Biology	Prerequisite: BIOL 217. Corequisite: CHEM 251 or 351.		
BIOL 317 (3 Credits)	Molecular Genetics and Heredity	BIOL 217		
BIOL 318 (3 Credits)	Principles of Ecology	BIOL 218		
BIOL 351 (3 Credits)	Anatomy of Vertebrates	BIOL 218		
BIOL 352 (3 Credits)	Animal Physiology	BIOL 217		
BIOL 360 (3 Credits)	Principles of Microbiology	BIOL 217 and CHEM 251 or CHEM 351		
BIOL 370 (3 Credits)	Molecular Genetics	BIOL 317		
BIOL 3101 (3 Credits)	Quantitative Biology	STAT 251, BIOL 217 and BIOL 218 with a minimum letter grade of C- in all		
BIOL 3201 (3 Credits)	Developmental Biology	BIOL 301 and 317 with a minimum letter grade of C- in both		
BIOL 3301 (3 Credits)	General Botany	BIOL 217 and BIOL 218 with a minimum letter grade of C- in both		

BIOL 3401 (3 Credits)	Community & Population Ecology	BIOL 318 and STAT 251 with a minimum letter grade of C- in both		
BIOL 3411 (3 Credits)	Evolution	BIOL 217 and BIOL 218 with a minimum letter grade of C- in both		
BIOL 3801 (3 Credits)	Advanced Cellular & Molecular Biology	BIOL 301 and 317 with a minimum letter grade of C- in both		
BIOL 4401 (3 Credits)	Field Methods in Ecology	BIOL 318 and 3101 with a minimum letter grade of C- in both – 3101 can be taken as a co-requisite this year		
BIOL 4491 (3 Credits)	Topics in Ecology & Environmental Biology	BIOL 318 with a minimum letter grade of C-		
BIOL 4891 (3 Credits)	Topics in Cellular & Molecular Biology	BIOL 301 and 317 with a minimum letter grade of C- in both		
BIOL 4901 (3 Credits)	Research Design	BIOL 3101 with a minimum letter grade of C- (can be taken as a co-requisite this year)		
BIOL 4902 (3 Credits)	Research Project or Science Elective*	BIOL 4901 and permission of the department	Can be replaced with CHEM 352, CHEM 311, MATH 204, PHYS 226 or SCIE 4901 (Applied Study Credit).	

REQUIRED ADDITIONAL SCIENCE COURSES

BIOC 393 (3 Credits)	Fundamentals of Biochemistry	CHEM 211 & CHEM 351 or CHEM 251		
CHEM 211 (3 Credits)	General Chemistry I	CHEM 30 & MATH 30-1		
CHEM 212 (3 Credits)	General Chemistry II	CHEM 211		
CHEM 351 (3 Credits)	Organic Chemistry I	CHEM 211 or CHEM 102		
MATH 202 or 203 (3 Credits)	Introductory Calculus I	MATH 202 Prerequisite: Prerequisite: MATH 30-1 MATH 203 Prerequisite: MATH 31		
PHYS 205 (3 Credits)	Introductory Physics I	MATH 30-1; PHYS 30 recommended		
SCIE 2101 (3 Credits)	Contemporary Issues in Science	15 credits of university level science course		
STAT 251 (3 Credits)	Introductory Statistics	MATH 30-1 or MATH 30-2		

SPECIFIED ELECTIVE REQUIREMENTS (see page 5 for list of courses allowed for each requirement)

ENGL 219 (3 Credits)	Essay Comp. and Critical Reading	ELA 30-1		
<u>Humanities Elective</u> (3 Credits)				
<u>Humanities Elective</u> (3 Credits)				
<u>Social Science Elective</u>				

(3 Credits)				
Social Science Elective (3 Credits)				
Indigenous Studies Elective (3 Credits)				
Wellness Elective (3 Credits)				
Arts and Science Elective (3 Credits)				
OPEN ELECTIVES				
Elective (3 Credits)				
Elective (3 Credits)				
Elective (3 Credits)				
Elective (3 Credits)				

The information below outlines which course fall under each course category. Click [here](#) link to view 2023-2024 Arts and Science courses offerings in more details. To qualify, the course you take must be three credits and university transferable. If you are not sure if a course qualifies, please e-mail studentconnect@rdpolytech.ca.

Humanities	Social Science	Science	Open Elective
Art (ART) Creation (CREA) Drama (DRAM) Music (MUSI) Film (FILM) Classics (CLAS) English (ENGL) History (HIST) Philosophy (PHIL)	Anthropology (ANTH) Communications (COMM) Economics (ECON) Indigenous Studies (INDS) Political Science (POLI) Psychology (PSYC) Sociology (SOCL)	Astronomy (ASTR) Biology (BIOL) Biochemistry (BIOC) Chemistry (CHEM) Computer Sciences (CMPT) <ul style="list-style-type: none"> CMPT 261 is not considered a Science Elective for Science students. Earth and Atmospheric Sciences (EAAS) Mathematics (MATH) Physics (PHYS) Statistics (STAT) General Science (SCIE)	Any courses from the other categories, or any three-credit university level course. Please connect with studentconnect@rdpolytech.ca if you have any questions about whether a course fits this requirement.

Indigenous Studies Elective: Choose at least 1 course from the following list.			
ANTH 321	Survey Latin America	HIST 379	Indigenous Peoples and Canada
ANTH 327	Cultures in a Global Context	INDS 205	Indigenous Peoples in Canada
ANTH 356	Survey: Indigenous Canada	POLI 223	Canadian Political Issues
ENGL 385	Indigenous Literature	POLI 321	Canadian Governance
HIST 372	The Prairie West in Canada	SOCI 307	Indigenous Peoples in Canada
HIST 373	Canada to 1867	SOCI 368	Race and Ethnicity in Canada
HIST 374	Canada Since 1867		

Wellness Elective: Choose at least 1 course from the following list.			
ANTH 204	Global Citizenship	PHIL 300	Professional Ethics
ANTH 331	Anthropology of Gender	PHIL 348	Gender & Sexuality
ANTH 363	Anthropology of Religion	PHIL 355	Philosophy of the Environment
ENGL 387	Topics: Ecocentrism	PHIL 357	Philosophy of Religion
FINS 150	Personal Finance	PHIL 386	Bioethics
HIST 325	Science & Religion	POLI 283	Global Issues
HIST 330	Health & Healing	POLI 324	Politics of Healthcare
HIST 357	Gender & Sexuality	PSYC 341	Social Psychology
INTD 325	Mindfulness, Meditation & the Body	PSYC 357	Adult Development & Aging
INTD 370	Intersections of Global Health	PSYC 367	Human Sexuality
INTD 375	Social Gerontology	PSYC 380	Positive Psychology
KNSS 210	Personal Fitness & Wellness	PSYC 389	Abnormal Psychology
KNSS 214	Introduction to Personal Physical Fitness	PSYC 391	Health Psychology
KNSS 244	Introduction to Nutrition	SOCI 301	Sociology of Gender
KPAC 255	Yoga For Beginners	SOCI 371	Sociology of Families
KPAC 296	Flexibility & Relaxation	SOCI 373	Sociology of Aging
PHIL 201	Values & Society	SOCI 374	Sociology of Health
PHIL 202	Knowledge & Reality	SOCI 376	Sociology of Religion

IMPORTANT NOTES

A maximum of 48 credits (16 courses) of Junior Coursework is allowed in the degree.

CONTACT INFORMATION AND HELPFUL RESOURCES

Red Deer Polytechnic Student Connect Centre	studentconnect@rdpolytech.ca www.rdpolytech.ca/SCC 403.342.3254
Red Deer Polytechnic website	rdpolytech.ca
Transfer Alberta Guide	transferalberta.alberta.ca