

BACHELOR OF SCIENCE – PHYSICS
UNIVERSITY OF ALBERTA
DONALD SCHOOL OF BUSINESS, SCIENCE AND TECHNOLOGY

UPDATED: April 2022

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 of your goal institution for admission requirements to their program

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.

MY MAJOR/TRANSFER UNIVERSITY IS NOT LISTED. WHAT SHOULD I DO?

- There are many institutions all offering a diverse range of majors and routes related to Physics. There is no way we can capture all possible routes. At RDP, the majority of students are transferring to the University of Alberta (UAlberta) so we highlight this university as it best suits the coursework RDP offers.

UNIVERSITY OF ALBERTA OFFERS THREE DIFFERENT WAYS TO EARN A PHYSICS DEGREE: WHAT ARE THESE AND WHAT DO THEY MEAN?

For many programs offered by the Faculty of Science at UAlberta, there are three ways to complete a degree. In most cases, the differences in these routes start to become noticeable at year 3.

- Honors – This route typically requires students to maintain a specific course load and GPA to be eligible. Students primarily focus in their major during all years of study and engage in a Directed Research Project.
- Specialization – This route also typically requires students to maintain a specific course load and GPA to be eligible. Students primarily focus in their major during all years of study, but not engage in a Directed Research Project.

- General – This route requires students to complete both a Major and a Minor. Overall, students will explore courses in a broader range of disciplines than compared to an Honors/Specialization program.

For more information on these routes and the various Physics programs, please visit the [UAlberta Physics website](#).

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! However, we encourage you to check the course load requirements for your destination university and degree.
- For students who are working towards an “Honors” or “Specialization” program, it is recommended to maintain a minimum course load of 24 credits during the Fall/Winter terms.
- 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.

WHY IS IT RECOMMENDED TO TRANSFER AFTER ONE YEAR AT RDP?

- The majority of the courses in this degree are only offered by UAlberta, so we do not have enough courses to allow a student to complete two full years of study (60 credits).

WHAT HAPPENS IF I TAKE LESS THAN THE RECOMMENDED COURSE LOAD?

- You may need an extra term or year to complete your program.
- May impact admission to an Honors or Specialization 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!
- After you have completed your registration, if you would like an advisor to review your registration please submit a [Registration Review Form](#).

SUGGESTED COURSE SEQUENCE

FIRST TERM	SECOND TERM
PHYS 241	PHYS 247
MATH 202 or 203	MATH 204
MATH 221 (can take either term)	Arts Elective
Arts Elective	Arts Elective
Science Elective	Science Elective

CHECKLIST

REQUIREMENT		PREREQUISITE(S)	COMMENTS	DONE
YEAR 1 COURSES				
PHYS 241 (3 Credits)	Mechanics	Prerequisite: PHYS 30 and MATH 30-1 Corequisite: MATH 202 or 203 or 212		
MATH 202 or 203 (3 Credits)	Introductory Calculus I or Calculus I	MATH 202 prerequisite: MATH 30-1 MATH 203 Prerequisite: MATH 31		
MATH 221 (3 Credits)	Linear Algebra I	MATH 30-1		
Arts Elective (3 Credits)				
Science Elective (3 Credits)			Students pursuing Geophysics: Take CHEM 211 and CHEM 212 in place of the Science Options. ASTR 205 is also a recommended option for Physics majors	
PHYS 247 (3 Credits)	Waves, Optics and Thermal Physics	Prerequisite: PHYS 241 or ENPH 231 Corequisite: MATH 204 or MATH 213		
MATH 204 (3 Credits)	Calculus II	MATH 202 or MATH 203		
Arts Elective (3 Credits)				
Arts Elective (3 Credits)				

Science Elective (3 Credits)			Students pursuing Geophysics: Take CHEM 211 and CHEM 212 in place of the Science Options. ASTR 205 is also a recommended option for Physics majors
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ARTS OR SCIENCE ELECTIVE

Examples of available Arts & Science Electives for the current academic year can be viewed [here](#).

TRANSFER INFORMATION

Make sure the courses you take are transferable using [Transfer Alberta](#).

IMPORTANT THINGS TO KNOW	
Transfer Credit	➤ Recommended to transfer after one year of study at RDP.
Applying for Transfer	➤ Deadline typically March 1. Consult U of A timelines . ➤ Apply to U of A here .
Honors and Specialization GPA	It is recommended students complete a course load of at least 24 credits over Fall and Winter terms. For GPA requirements, please click here . Possession of the minimum GPA does not guarantee entry.
How Admission Grade Point Average (AGPA) calculated	Calculated on all university transferable coursework completed in the most recent two terms of study if they contain a minimum of 24 credits. If those two terms contain less than 24 credits, all work in the next most recent term(s) is included in the calculation until the minimum total of 24 credits is reached. Fall/Winter courses are considered Winter courses in these calculations. For applicants who have attempted less than 24 credits of transferable postsecondary work, the AGPA is based on all university or university transfer credits attempted. Note: Where the applicant has more than one passing grade for the same course at any institution, only the first passing grade is used in calculating the grade point average(s) for admission purposes. For more information on transfer, please consult the University of Alberta Calendar .
Minimum Transferable Grade	A minimum grade of C- must be achieved in order for course credit to be transferable. While courses with grades of D or F will not transfer, they remain on your transcript and will be used in calculation of your GPA. <i>Please talk to an Academic Advisor as soon as possible if you feel you may be in jeopardy of not getting a C- in a course you are enrolled in.</i>

CONTACT INFORMATION AND HELPFUL RESOURCES

Red Deer Polytechnic Student Connect Centre	<ul style="list-style-type: none"> • studentconnect@rdpolytech.ca • www.rdpolytech.ca/SCC • 403.342.3254
Red Deer Polytechnic website	rdpolytech.ca
Transfer Alberta Guide	transferalberta.alberta.ca
University of Alberta	<ul style="list-style-type: none"> • https://www.ualberta.ca/physics/index.html • physugrd@ualberta.ca