

The background features a complex network of nodes and lines. The nodes are represented by small circles, and the lines are thin, connecting the nodes in a web-like structure. The color of the nodes and lines transitions from a light, golden-brown on the left to a dark, charcoal brown on the right. The overall effect is that of a digital or scientific network.

PHYSICS
ORIENTATION

WINTER 2024

NEW AND RETURNING STUDENTS

- OVERVIEW OF THE DEPARTMENT
- PROGRAM OVERVIEW
- CO-OP PROGRAM AND C-EDGE
- AWARDS and RESEARCH OPPORTUNITIES
- CUBCAPS
- USEFUL LINKS and RESOURCES
- ACADEMIC INTEGRITY
- DIVERSITY and INCLUSION
- BOOK AN APPOINTMENT WITH ACADEMIC ADVISOR
- Q&A

OVERVIEW
OF THE
DEPARTMENT

- PEOPLE
- CAMPUS
- USEFUL SPACES
- PROGRAMS

PEOPLE

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Nata Zazubovits

BSc Coordinator and Academic Advisor

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- [BOOK a ZOOM meeting](#)
- [BOOK an IN-PERSON meeting](#)



PEOPLE

Dr. Valter Zazubovits

Department Chair

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Patrick Doane

Teaching Lab Supervisor

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In-person (on campus): Tuesday-Friday



CAMPUS



[Shuttle schedule](#)

DEPARTMENT OF PHYSICS SPACES

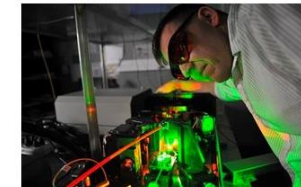
SP Building 3rd Floor

- Department of Physics Kitchen
- Undergraduate Physics Study Room
- Offices for most Physics Faculty and TAs



Research Labs (see also [Department of Physics → Research](#))

SP Building Basement, 3rd & 5th floor, PERFORM Centre



PROGRAM OVERVIEW

- PROGRAMS
- UNDERGRADUATE ACADEMIC CALENDAR
- COURSE LOAD/ COURSE SEQUENCE
- YEAR ZERO
- PREREQUISITES
- ELECTIVES
- SPECIALIZATION/HONOURS PROGRAM
- COURSES TAUGHT DURING FALL/WINTER/SUMMER
- TUTORIALS
- IMPORTANT DATES

PROGRAMS

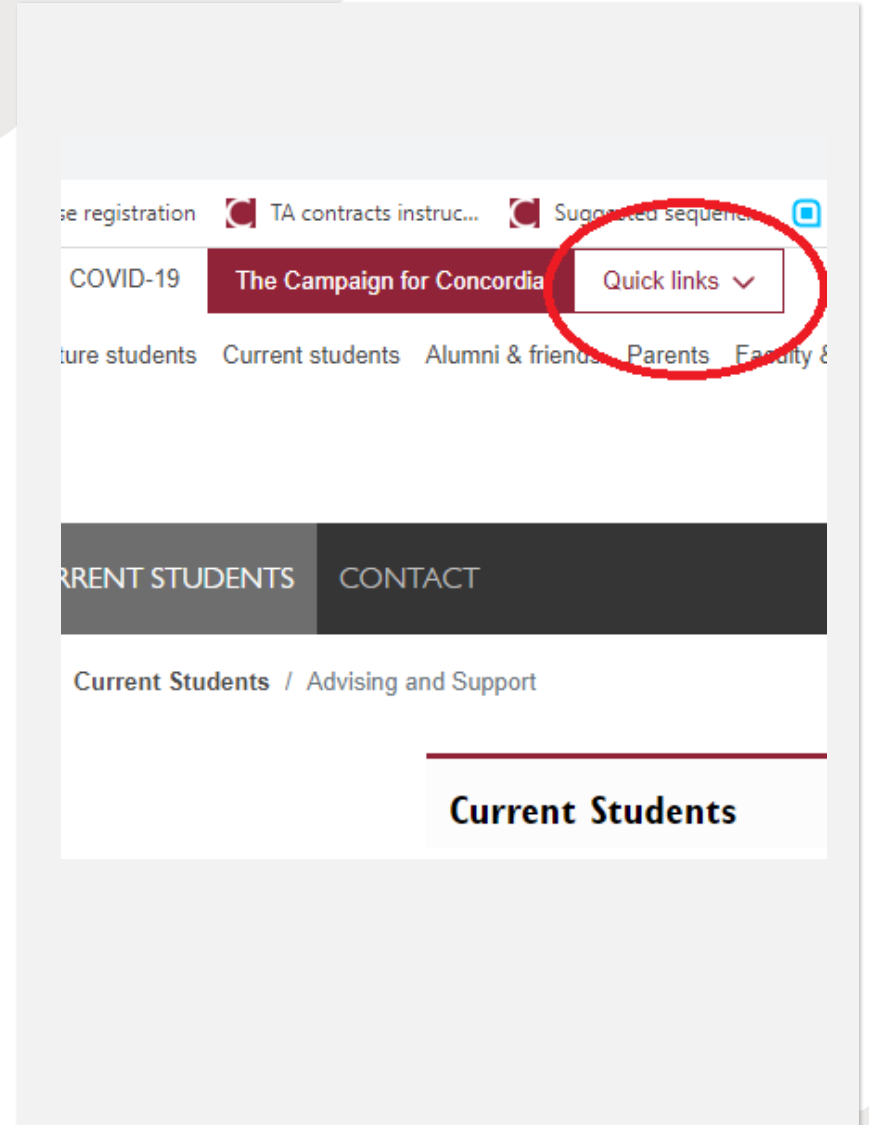
- MAJOR IN PHYSICS
- SPECIALIZATION IN PHYSICS
- SPECIALIZATION IN BIOPHYSICS
- HONOURS IN PHYSICS (GPA > 3.3)
- HONOURS IN BIOPHYSICS
- MINOR IN BIOPHYSICS
- CO-OP PROGRAM (COMBINE WITH YOUR CONCENTRATION)
- C-EDGE PROGRAM (COMBINE WITH YOUR CONCENTRATION)

UNDERGRADUATE CALENDAR

<https://www.concordia.ca/>

QUICK LINKS → UNDERGRADUATE
CALENDAR → YEAR OF YOUR ADMISSION

OR use the internal Concordia SEARCH option to
search for the Undergraduate Calendar



UNDERGRADUATE CALENDAR

42 Core Program
6 MAST 218³, 219³
36 PHYS 230³, 232³, 236³, 245³, 252³, 253³, 334³, 335³, 354³, 367³, 377³, 435³

72 BSc Honours in Physics
42 Core Program
6 PHYS 496⁶
AND

330 • *PHYSICS*
2021-22 Concordia University Undergraduate Calendar

Concentration in Physics
18 PHYS 330³, 345³, 355³, 459³, 468³, 478³
6 Chosen from PHYS 289³, 370³, 389³, 436³, 440³, 443³, 445³, 458³, 498³
OR
Concentration in Biophysics
12 BIOL 266³; PHYS 260³, 330³, 460³
9 Chosen from CHEM 235³, 271³, 431³; PHYS 289³, 345³, 370³, 389³, 440³, 445³, 459³, 461³, 462³, 463³
3 Chosen from BIOL 261³, 340³, 367³, 371³; PHYS 443³

66 BSc Specialization in Physics
Option A: Physics
42 Core Program
21 PHYS 330³, 345³, 355³, 459³, 468³, 478³, 497³
3 Chosen from PHYS 370³, 436³, 440³, 443³, 445³, 458³, 498³

66 BSc Specialization in Physics
Option B: Biophysics
42 Core Program
15 BIOL 266³; PHYS 260³, 330³, 460³, 497³
6 Chosen from CHEM 235³, 271³, 431³; PHYS 345³, 370³, 440³, 445³, 459³, 461³, 462³, 463³, 468³
3 Chosen from BIOL 261³, 340³, 367³, 371³; PHYS 443³

45 BSc Major in Physics
42 Core Program
3 Chosen from any PHYS course in consultation with an advisor

COURSE LOAD / COURSE SEQUENCE

	A	D
1	SPEC in PHYSICS (66 = 42 CORE +24)	PREREQUISITES
2	18 + 3 credits	
3	PHYS 330 Experimental Physics II (3.00)	PHYS 230
4	PHYS 345 Advanced Classical Mechanics (3.00)	PHYS 232, PHYS 245, MAST 219
5	PHYS 355 Electronics (3.00)	PHYS 205
6	PHYS 459 Condensed Matter Physics I (3.00)	PHYS 377
7	PHYS 468 Condensed Matter Physics II (3.00)	PHYS 459, PHYS 478
8	PHYS 478 Quantum Mechanics II (3.00)	PHYS 377
9	PHYS 497 Specialization Research Project (3.00)	PHYS 232
10	3 credits	
11	PHYS 370 Nonlinear Dynamics/Chaos/Fractals (3.00)	PHYS 232
12	PHYS 436 Methods of Theoretical Physics III (3.00)	PHYS 335
13	PHYS 440 Computational Methods in Physics with Python (3.00)	PHYS 233, PHYS 335, PHYS 337
14	PHYS 443 Quantitative Human Systems Physiology (3.00)	minimum of 45 university credits
15	PHYS 445 Principles of Medical Imaging (3.00)	minimum of 45 university credits
16	PHYS 458 Advanced Electrodynamics (3.00)	PHYS 354, PHYS 436
17	PHYS 498 Advanced Topics in Physics (3.00)	
18		
19		
20	CORE PHYSICS (42)	
21	6 credits	
22	MAST 218 Multivariable Calculus I (3.00)	MATH 204 MATH 205
23	MAST 219 Multivariable Calculus II (3.00)	MAST 218
24	36 credits:	
25	PHYS 230 Experimental Physics I (3.00)	PHYS 204-206, PHYS 224-226; or equivalent.
26	PHYS 232 Methods of Theoretical Physics I (3.00)	MAST 218
27	PHYS 236 Numerical Methods in Physics with Python (3.00)	MATH 204, MATH 205
28	PHYS 245 Classical Mechanics (3.00)	MATH 204, MATH 205
29	PHYS 252 Optics (3.00)	PHYS 206
30	PHYS 253 Electricity and Magnetism I (3.00)	PHYS 205, MAST 218
31	PHYS 334 Thermodynamics (3.00)	PHYS 204, MAST 218, MAST 219
32	PHYS 335 Methods of Theoretical Physics II (3.00)	PHYS 205
33	PHYS 354 Electricity and Magnetism II (3.00)	PHYS 253, MAST 219

66 BSc Specialization in Physics
42 Core Program
21 PHYS 330, 345, 355, 459, 468, 478, 497
3 Chosen from PHYS 370, 436, 440, 443, 445, 458, 498
Total: 90 or 120 credits program
66 Spec in Physics
24 = electives outside of Physics (6 outside of Sciences)

YEAR-0 (30 credits) of 120 credits program	PRE-RECS YEAR-0
FALL	
CHEM 205 General Chemistry (3.00)	
MATH 203 Differential and Integral Calculus (3:00)	
MATH 204 Vectors and Matrices (3:00)	
PHYS 204 Mechanics (3:00) T	MATH 203*
BIOL 201 Introductory Biology (3:00)	
WINTER	
CHEM 206 General Chemistry II (3.00)	CHEM 205*
MATH 205 Differential and Integral Calculus II (3:00)	
PHYS 205 Electricity and Magnetism (3:00) T	MATH 203 PHYS 204
PHYS 206 Waves, Optics, Modern Physics (3:00) T	PHYS 204
PHYS 224 Experimental Mechanics (1:00)	PHYS 204
PHYS 225 Experimental Electricity and Magnetism (1:00)	PHYS 205
PHYS 226 Experimental Waves, Optics, Modern Physics (1:00)	PHYS 206
SUMMER (if needed)	
PHYS 204 Mechanics (3:00) T	
PHYS 205 Electricity and Magnetism (3:00) T	
PHYS 224 Experimental Mechanics (1:00)	
PHYS 225 Experimental Electricity and Magnetism (1:00)	
PHYS 226 Experimental Waves, Optics, Modern Physics (1:00)	

YEAR ZERO

YEAR ZERO (120 CREDITS PROGRAM)

YEAR "0" (30 credits) FALL ENTRY							
FALL				WINTER			
YEAR 0		PRE-RECS	CO-RECS	YEAR 0		PRE-RECS	CO-RECS
	CHEM 205 General Chemistry (3.00)				CHEM 206 General Chemistry (3.00)	CHEM 205	
	MATH 203 Differential and Integral Calculus I (3.00)	MATH 201			MATH 205 Differential and Integral Calculus II (3.00)	MATH 203	
	MATH 204 Vectors and Matrices (3.00)	MATH 201			PHYS 205 Electricity and Magnetism (3.00)	PHYS 204	
	PHYS 204 Mechanics (3.00)		MATH 203		PHYS 206 Waves, Optics, and Modern Physics (3.00)	PHYS 204	
	BIOL 201 Introductory Biology (3.00)				PHYS 224 Experimental Mechanics (1.00)		PHYS 204
					PHYS 225 Experimental Electricity and Magnetism (1.00)		PHYS 205
					PHYS 226 Experimental Waves, Optics, and Modern Physics (1.00)		PHYS 206
	All courses except PHYS 206 are offered during SUMMER term as well						

NB! Credits of Year Zero do not go towards the concentration but the grades of those course are counted towards the GPA

ELECTIVES

MAJOR (42+3 credits) FALL ENTRY					
FALL			WINTER		
YEAR 1	PRE-RECS	CO-RECS	YEAR 1	PRE-RECS	
MAST 218 Multivariable Calculus I (3.00)	MATH 204 MATH 205		MAST 219 Multivariable Calculus II (3.00)	MAST 218	
PHYS 232 Methods of Theoretical Physics I (3.00)	MAST 218		PHYS 236 Numerical Methods in Physics with Python (3.00)	MATH 204, MATH 206	
PHYS 245 Classical Mechanics (3.00)	MATH 204, MATH 205		PHYS 252 Optics (3.00)	PHYS 206	
Elective (3:00)			Elective (3:00)		
YEAR 2	PHYS 204-206, PHYS 224-226; or equivalent		YEAR 2	PHYS 205, PHYS 206	
PHYS 230 Experimental Physics I (3.00)	PHYS 205	MAST 218	PHYS 367 Modern Physics and Relativity (3.00)	PHYS 232	
PHYS 253 Electricity and Magnetism I (3.00)	PHYS 204, MAST 218	MAST 219	PHYS 335 Methods of Theoretical Physics II (3.00)	PHYS 253	
PHYS 334 Thermodynamics (3.00)			PHYS 354 Electricity and Magnetism II (3.00)		
Elective (3:00)			Elective (3:00)		
<i>PHYS 230 (3.00) can be taken during Fall, Winter or Summer terms</i>					
YEAR 3	PHYS 367		YEAR 3	PHYS 334, PHYS 367	
PHYS 377 Quantum Mechanics I (3.00)			PHYS 435 Statistical Physics (3.00)		
PHYSICS 3 credit of PHYS, see recommendation (3.00)			Elective (3:00)		
Elective (3:00)			Elective (3:00)		
Elective (3:00)			Elective (3:00)		
YEAR 4			YEAR 4		
Elective (3:00)			Elective (3:00)		
Elective (3:00)			Elective (3:00)		
Elective (3:00)			Elective (3:00)		
Recommended PHYS electives for FALL:			Recommended PHYS electives for WINTER:		
	PRE-RECS	CO-RECS		PRE-RECS	
PHYS 284 Introduction to Astronomy (3.00)	cannot go towards concentration		PHYS 260 Introductory Biophysics (3.00)	BIOL 201; CHEM 205; MATH 203; PHYS 204-206	
PHYS 330 Experimental Physics II (3.00)	PHYS 230		PHYS 330 Experimental Physics II (3.00)	PHYS 230	
PHYS 345 Advanced Classical Mechanics (3.00)	PHYS 232, PHYS 245, MAST 219		PHYS 445 Principles of Medical Imaging (3.00)		
PHYS 355 Electronics (3.00)	PHYS 205		PHYS 460 Chemical Aspects of Biophysics (3.00)	PHYS 253	
PHYS 440 Computational Methods in Physics with Python (3.00)	PHYS 236, PHYS 335, PHYS 377		PHYS 468 Condensed Matter and Nanophysics	PHYS 459	
PHYS 443 Quantitative Human Systems Physiology (3.00)			PHYS 478 Quantum Mechanics II (3.00)	PHYS 377	
PHYS 459 Condensed Matter Physics I (3.00)	PHYS 377		PHYS 498 Advanced Topics in Physics (3.00)	PHYS 478	
CORE PHYSICS (42)			All courses except MAST 218, MAST 219, PHYS 230, PHYS 330 and PHYS 497 are offered once per year		
6 credits			45 BSc Major in Physics		
MAST 218 Multivariable Calculus I (3.00)			42 Core Program		
MAST 219 Multivariable Calculus II (3.00)			3 Chosen from PHYS electives		
36 credits:			Total: 90 credits program = 45 of BSc Major + (24 + 21) of Electives		
PHYS 230 Experimental Physics I (3.00)			24 = Electives outside of Physics, including 6 outside of Sciences		
PHYS 232 Methods of Theoretical Physics I (3.00)			21 = Electives, can be Physics (if you are taking a lot of Physics electives, consider switching to Specialization)		
PHYS 236 Numerical Methods in Physics with Python (3.00)			Sciences:		
PHYS 245 Classical Mechanics (3.00)			Department of Biology,		
PHYS 252 Optics (3.00)			Department of Chemistry and Biochemistry		
PHYS 253 Electricity and Magnetism I (3.00)			Department of Health, Kinesiology, and Applied Physiology		
PHYS 334 Thermodynamics (3.00)			Department of Mathematics and Statistics		
PHYS 335 Methods of Theoretical Physics II (3.00)			Department of Physics		
PHYS 354 Electricity and Magnetism II (3.00)			Department of Psychology		
PHYS 367 Modern Physics and Relativity (3.00)			Science College		
PHYS 377 Quantum Mechanics I (3.00)					
PHYS 435 Statistical Physics (3.00)					

Example of the old schedule:
Major in Physics Program,
4 courses per term

(This schedule is less balanced.
Please use the new schedule)

45 BSc Major in Physics
42 Core Program
3 Chosen from PHYS electives
Total: 90 credits program = 45 of BSc Major + (24 + 21) of Electives
24 = Electives outside of Physics, including 6 outside of Sciences
21 = Electives, can be Physics (if you are taking a lot of Physics electives, consider switching to Specialization)

ELECTIVES

General Education Requirement (6 credits)

NOT SCIENCES

Sciences:
Department of Biology,
Department of Chemistry and Biochemistry
Department of Health, Kinesiology, and Applied Physiology
Department of Mathematics and Statistics
Department of Physics
Department of Psychology
Science College

ELECTIVES

- [ELECTIVE COURSES](#) link
- eConcordia [ELECTIVE COURSES](#) link
- Questions about courses in **Engineering or Computer Science? Minor in Computer Science?**
[ASK THEM HERE](#)

SHOULD I TAKE 5, 4 OR 3
COURSES PER TERM?

COURSE LOAD/ COURSE SEQUENCE

5 courses per term

MAJOR (42+3 credits) FALL ENTRY							
FALL			PRE-RECS	CO-RECS	WINTER		
YEAR 1	MAST 218 Multivariable Calculus I (3.00)		MATH 204 MATH 205		YEAR 1	MAST 219 Multivariable Calculus II (3.00)	MAST 218
	PHYS 230 Experimental Physics I (3.00)		PHYS 204-206, PHYS 224-226; or equivalent			PHYS 236 Numerical Methods in Physics with Python (3.00)	MATH 204, MATH 205
	PHYS 232 Methods of Theoretical Physics I (3.00)			MAST 218		PHYS 252 Optics (3.00)	PHYS 206
	Elective (3:00)					Elective (3:00)	
	Elective (3:00)					Elective (3:00)	
						<i>PHYS 230 (3.00) can be taken during Fall, Winter or Summer terms</i>	
YEAR 2	PHYS 253 Electricity and Magnetism I (3.00)		PHYS 205	MAST 218	YEAR 2	PHYS 354 Electricity and Magnetism II (3.00)	PHYS 253
	PHYS 334 Thermodynamics (3.00) L PHYS 393		PHYS 204, MAST 218	MAST 219		PHYS 367 Modern Physics and Relativity (3.00)	PHYS 205, PHYS 206
	PHYS 245 Classical Mechanics (3.00)		MATH 204, MATH 205			Elective (3:00)	
	Elective (3:00)					Elective (3:00)	
	Elective (3:00)					Elective (3:00)	
						<i>PHYS 230 (3.00) can be taken during Fall, Winter or Summer terms</i>	
YEAR 3	PHYS 377 Quantum Mechanics I (3.00)		PHYS 367		YEAR 3	PHYS 335 Methods of Theoretical Physics II (3.00)	PHYS 232
	PHYS MAJOR 3 credit of PHYS, see recommendation (3:00)					PHYS 435 Statistical Physics (3.00)	PHYS 334, PHYS 367
	Elective (3:00)					Elective (3:00)	PHYS 253
	Elective (3:00)					Elective (3:00)	MAST 219
	Elective (3:00)						

COURSE LOAD / COURSE SEQUENCE

4 courses per term

MAJOR (42+3 credits) FALL ENTRY

		PRE-RECS		CO-RECS			
		FALL		WINTER			
YEAR	COURSE	PRE-RECS	CO-RECS	YEAR	COURSE	PRE-RECS	CO-RECS
YEAR 1	MAST 218 Multivariable Calculus I (3.00)	MATH 204 MATH 205		YEAR 1	MAST 219 Multivariable Calculus II (3.00)	MAST 218	
	PHYS 230 Experimental Physics I (3.00)	PHYS 204-206, PHYS 224-226; or equivalent			PHYS 236 Numerical Methods in Physics with Python (3.00)	MATH 204, MATH 205	
	PHYS 232 Methods of Theoretical Physics I (3.00) Elective (3:00)		MAST 218		PHYS 252 Optics (3.00) Elective (3:00)	PHYS 206	
YEAR 2	PHYS 245 Classical Mechanics (3.00)	MATH 204, MATH 205		YEAR 2	PHYS 367 Modern Physics and Relativity (3.00)	PHYS 205, PHYS 206	
	PHYS 253 Electricity and Magnetism I (3.00)	PHYS 205	MAST 218		PHYS 335 Methods of Theoretical Physics II (3.00)	PHYS 232	MAST 219
	PHYS 334 Thermodynamics (3.00)	PHYS 204, MAST 218	MAST 219		PHYS 354 Electricity and Magnetism II (3.00)	PHYS 253	MAST 219
	Elective (3:00) <i>PHYS 230 (3.00) can be taken during Fall, Winter or Summer terms</i>				Elective (3:00)		
YEAR 3	PHYS 377 Quantum Mechanics I (3.00)	PHYS 367		YEAR 3	PHYS 435 Statistical Physics (3.00)	PHYS 334, PHYS 367	
	PHYSICS 3 credit of PHYS, see recommendation (3:00)				Elective (3:00)		
	Elective (3:00)				Elective (3:00)		
YEAR 4	Elective (3:00)			YEAR 4	Elective (3:00)		
	Elective (3:00)				Elective (3:00)		
	Elective (3:00)				Elective (3:00)		

COURSE LOAD/ COURSE SEQUENCE

3 courses per term

MAJOR (42+3 credits) FALL ENTRY

	FALL	PRE-RECS	CO-RECS		WINTER	PRE-RECS	CO-RECS
YEAR 1	MAST 218 Multivariable Calculus I (3.00)	MATH 204 MATH 205		YEAR 1	MAST 219 Multivariable Calculus II (3.00)	MAST 218	
	PHYS 230 Experimental Physics I (3.00) Elective (3:00)	PHYS 204-206, PHYS 224-226; or equivalent			PHYS 236 Numerical Methods in Physics with Python (3.00) Elective (3:00)	MATH 204, MATH 205	
YEAR 2	PHYS 232 Methods of Theoretical Physics I (3.00)	MAST 218		YEAR 2	PHYS 252 Optics (3.00)	PHYS 206	
	PHYS 253 Electricity and Magnetism I (3.00) Elective (3:00)	PHYS 205	MAST 218		PHYS 354 Electricity and Magnetism II (3.00) Elective (3:00)	PHYS 253	MAST 219
					<i>PHYS 230 (3.00) can be taken during Fall, Winter or Summer terms</i>		
YEAR 3	PHYS 334 Thermodynamics (3.00)	PHYS 204, MAST 218	MAST 219	YEAR 3	PHYS 367 Modern Physics and Relativity (3.00)	PHYS 205, PHYS 206	
	PHYS 245 Classical Mechanics (3.00) Elective (3:00)	MATH 204, MATH 205			PHYS 335 Methods of Theoretical Physics II (3.00) Elective (3:00)	PHYS 232	MAST 219
YEAR 4	PHYS MAJOR 3 credit of PHYS, see recommendation (3:00)			YEAR 4	PHYS 435 Statistical Physics (3.00)	PHYS 334, PHYS 367	
	PHYS 377 Quantum Mechanics I (3.00) Elective (3:00)	PHYS 367			Elective (3:00)		
					Elective (3:00)		
YEAR 5	Elective (3:00)			YEAR 5	Elective (3:00)		
	Elective (3:00)				Elective (3:00)		
	Elective (3:00)				Elective (3:00)		



Undergraduate Programs

Undergraduate

Graduate

Interested in studying physics? Read the new book, "[Physics for the Curious: Why Study Physics](#)", written by a team of physicists including our own [Prof. Truong Vo-Van](#).

Academic Advising, Forms, and Student Requests

What order do I take my classes in?

Suggested Course Sequence for Fall Entry

3 courses per term

4 courses per term

5 courses per term

[SUGGESTED COURSE SEQUENCES LINK](#)

CONSIDERING GOING TO GRADUATE SCHOOL?

66 BSc Specialization in Physics

42 Core Program

21 PHYS 330, 345, 355, 459, 468, 478, 497

3 Chosen from PHYS 370, 436, 440, 443, 445, 458, 498

Total: 90 credits program = **66 + 24**

66 Spec in Physics

24 = electives outside of Physics (**6** outside of **Sciences**)

★ Keep your GPA up

CONSIDERING GOING TO GRADUATE SCHOOL?

Specialization, Opt A (66 credits) FALL ENTRY							
	FALL	PRE-RECS	CO-RECS		WINTER	PRE-RECS	CO-RECS
YEAR 1	MAST 218 Multivariable Calculus I (3.00)	MATH 204, MATH 205		YEAR 1	MAST 219 Multivariable Calculus II (3.00)	MAST 218	
	PHYS 230 Experimental Physics I (3.00)	PHYS 204-206, PHYS 224-226; or equivalent			PHYS 236 Numerical Methods in Physics with Python (3.00)	MATH 204, MATH 205	
	PHYS 232 Methods of Theoretical Physics I (3.00)		MAST 218		PHYS 252 Optics (3.00)	PHYS 206	
	Elective (3:00)				Elective (3:00)		
YEAR 2	PHYS 245 Classical Mechanics (3.00)	MATH 204, MATH 205		YEAR 2	PHYS 367 Modern Physics and Relativity (3.00)	PHYS 205, PHYS 206	
	PHYS 253 Electricity and Magnetism I (3.00)	PHYS 205	MAST 218		PHYS 335 Methods of Theoretical Physics II (3.00)	PHYS 232	MAST 219
	PHYS 334 Thermodynamics (3.00)	PHYS 204, MAST 218	MAST 219		PHYS 354 Electricity and Magnetism II (3.00)	PHYS 253	MAST 219
	Elective (3.00)				Elective (3:00)		
	<i>PHYS 230 and PHYS 330 (3.00) can be taken during Fall, Winter or Summer terms</i>						
YEAR 3	PHYS 377 Quantum Mechanics I (3.00)	PHYS 367		YEAR 3	PHYS 435 Statistical Physics (3.00)	PHYS 334, PHYS 367	
	PHYS 345 Advanced Classical Mechanics (3.00)	PHYS 232, PHYS 245			PHYS 478 Quantum Mechanics II (3.00)	PHYS 377	
	PHYS 330 Experimental Physics II (3.00)	MAST 219			Elective (3:00)		
	Elective (3:00)	PHYS 230			Elective (3:00)		
	<i>PHYS 497 Specialization Research Project (3.00) can be taken during Fall, Winter or Summer terms</i>						
YEAR 4	PHYS 459 Condensed Matter Physics I (3.00)	PHYS 377		YEAR 4	PHYS 468 Condensed Matter Physics II (3.00)	PHYS 459	PHYS 478
	PHYS 355 Electronics (3.00)	PHYS 205			PHYS 497 Specialization Research Project (3.00)		
	Recommended PHYS 3 credits OR Elective (3.00)		↔		Recommended PHYS 3 credits (if not taken during Fall) OR Elective (3.00)		

ONE CAN DO RESEARCH
DURING THE FIRST
YEAR

PHYS 289

(HONOURS RESEARCH PROJECT)
IS EXACTLY FOR THAT

Coordinator/UPD Acceptance:

STUDENT INFORMATION (Checklist filled in by the Coordinator/Program Director)

- GPA requirements met** (GPA \geq 3.3)
- GPA requirements not met** (2 references needed from faculty members other than the supervisor)
- Not in honours program yet**, recommended to take the course (PHYS 289 only)

Name: _____ Signature: _____

Date: _____

CONSIDERING GOING TO GRADUATE SCHOOL?

HONOURS PROGRAM

Honours, Opt A (72 credits) FALL ENTRY							
FALL			PRE-RECS	CO-RECS	YEAR	WINTER	PRE-RECS
1	MAST 218 Multivariable Calculus I (3.00)		MATH 204 MATH 205		YEAR 1	MAST 219 Multivariable Calculus II (3.00)	MAST 218
	PHYS 230 Experimental Physics I (3.00)		PHYS 204-206, PHYS 224-226; or equivalent			PHYS 236 Numerical Methods in Physics with Python (3.00)	MATH 204, MATH 205
	PHYS 232 Methods of Theoretical Physics I (3.00)			MAST 218		PHYS 252 Optics (3.00)	PHYS 206
	Elective (3:00)					Elective (3:00)	
						<i>Honours students can replace LIST 1 courses with PHYS 289 Honours Research Experience I. Can be taken during Fall, Winter or Summer terms</i>	
2	PHYS 245 Classical Mechanics (3.00)		MATH 204, MATH 205		YEAR 2	PHYS 367 Modern Physics and Relativity (3.00)	PHYS 205, PHYS 206
	PHYS 253 Electricity and Magnetism I (3.00)		PHYS 205	MAST 218		PHYS 335 Methods of Theoretical Physics II (3.00)	PHYS 232
	PHYS 334 Thermodynamics (3.00) L PHYS 393		PHYS 204, MAST 218	MAST 219		PHYS 354 Electricity and Magnetism II (3.00)	PHYS 253
	Elective (3:00)					Elective (3:00)	
						<i>Honours students can replace LIST 1 courses with PHYS 389 Honours Research Experience II. Can be taken during Fall, Winter or Summer terms</i>	
3	PHYS 377 Quantum Mechanics I (3.00)		PHYS 367		YEAR 3	PHYS 435 Statistical Physics (3.00)	PHYS 334, PHYS 367
	PHYS 345 Advanced Classical Mechanics (3.00)		PHYS 232, PHYS 245, MAST 219			PHYS 478 Quantum Mechanics II (3.00)	PHYS 377
	PHYS 330 Experimental Physics II (3.00)		PHYS 230			Elective (3:00)	
	Elective (3:00)						
4	PHYS 496 Honours Research Project (2-term)				YEAR 4	PHYS 496 Honours Research Project (2-term) continued	
	PHYS 459 Condensed Matter Physics I (3.00)		PHYS 377			PHYS 468 Condensed Matter Physics II (3.00)	PHYS 459
	PHYS 355 Electronics (3.00)		PHYS 205			One course from List 1 (see below) (If PHYS 289/389 is taken, then elective)	
	One course from List 1 (see below) (If PHYS 289/389 is taken, then elective)						

MOST OF THE
PHYSICS
COURSES ARE
TAUGHT ONLY
DURING WINTER
OR FALL TERMS

COURSES TAUGHT DURING SUMMER 2023	COURSES TAUGHT DURING FALL 2023	COURSES TAUGHT DURING WINTER 2024
PHYS 204/224	PHYS 204/224	PHYS 204/224
PHYS 205/225	PHYS 205/225	PHYS 205/225
PHYS 226	PHYS 206/226	PHYS 206/226
PHYS 200	PHYS 230	PHYS 230
PHYS 230	PHYS 330	PHYS 330
PHYS 330	PHYS 232	PHYS 236
PHYS 289	PHYS 284	PHYS 252
PHYS 389	PHYS 245	PHYS 260
PHYS 497	PHYS 253	PHYS 273
	PHYS 334	PHYS 335
	PHYS 345	PHYS 354
	PHYS 355	PHYS 367
	PHYS 377	PHYS 435
	PHYS 440	PHYS 445
	PHYS 443	PHYS 460
	PHYS 459	PHYS 468
	PHYS 289	PHYS 478
	PHYS 389	PHYS 498
	PHYS 497	PHYS 289
		PHYS 389
		PHYS 497

★ Fall/Winter offerings might slightly change from year to year.

COURSE LOAD/ COURSE SEQUENCE

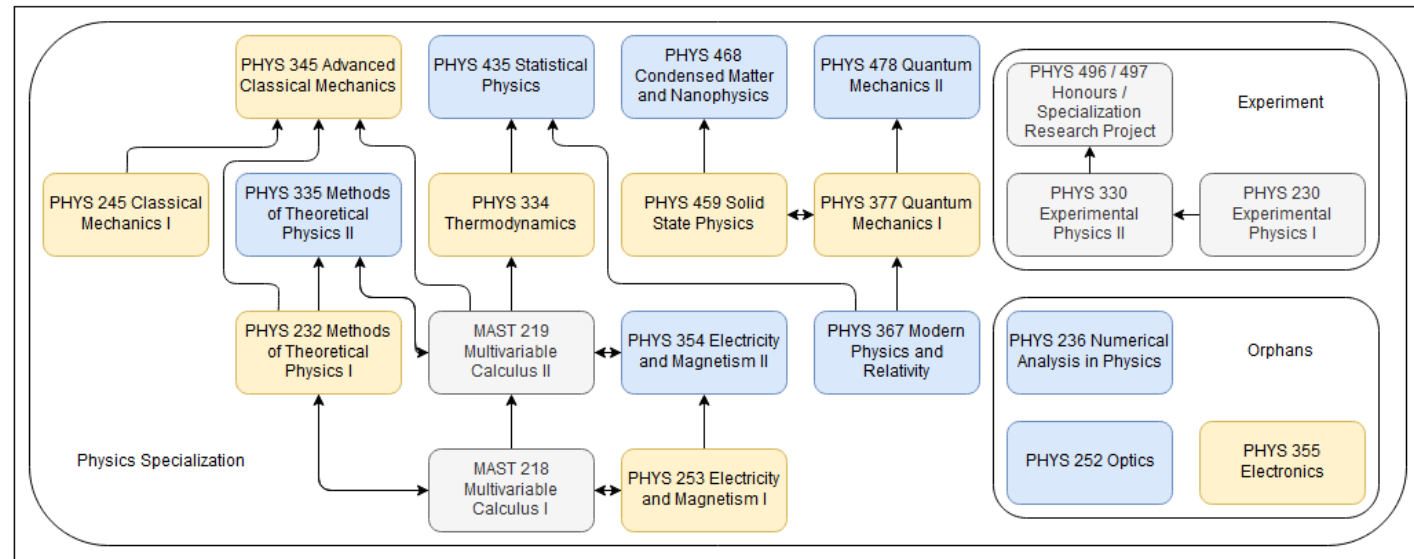
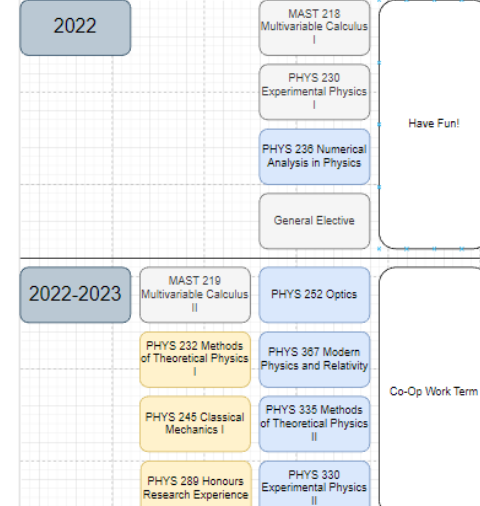
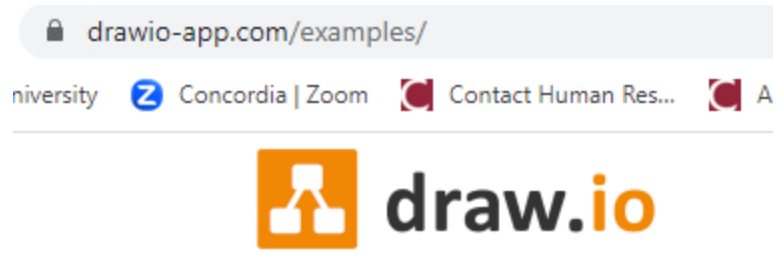
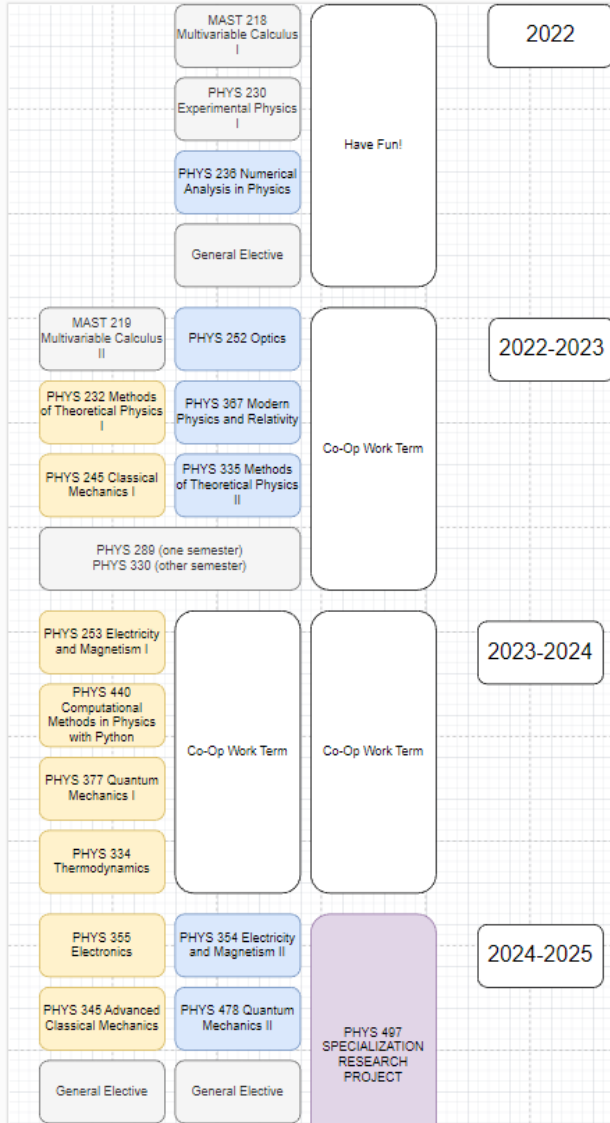
WINTER/FALL

PHYS 377

PHYS 367 → PHYS 377

PHYS 459 Condensed Matter Physics I (3.00)	PHYS 377
PHYS 468 Condensed Matter Physics II (3.00)	PHYS 459, PHYS 478
PHYS 478 Quantum Mechanics II (3.00)	PHYS 377
PHYS 497 Specialization Research Project (3.00)	PHYS 232
3 credits	
PHYS 370 Nonlinear Dynamics/Chaos/Fractals (3.00)	PHYS 232
PHYS 436 Methods of Theoretical Physics III (3.00)	PHYS 335
PHYS 440 Computational Methods in Physics with Python (3.00)	PHYS 233, PHYS 335, PHYS 337
PHYS 443 Quantitative Human Systems Physiology (3.00)	minimum of 45 university credits
PHYS 445 Principles of Medical Imaging (3.00)	minimum of 45 university credits
PHYS 458 Advanced Electrodynamics (3.00)	PHYS 354, PHYS 436
PHYS 498 Advanced Topics in Physics (3.00)	
CORE PHYSICS (42)	
6 credits	
MAST 218 Multivariable Calculus I (3.00)	MATH 204 MATH 205
MAST 219 Multivariable Calculus II (3.00)	MAST 218
36 credits:	
PHYS 230 Experimental Physics I (3.00)	PHYS 204-206, PHYS 224-226; or equivalent.
PHYS 232 Methods of Theoretical Physics I (3.00)	MAST 218
PHYS 236 Numerical Methods in Physics with Python (3.00)	MATH 204, MATH 205
PHYS 245 Classical Mechanics (3.00)	MATH 204, MATH 205
PHYS 252 Optics (3.00)	PHYS 206
PHYS 253 Electricity and Magnetism I (3.00)	PHYS 205, MAST 218
PHYS 334 Thermodynamics (3.00)	PHYS 204, MAST 218, MAST 219
PHYS 335 Methods of Theoretical Physics II (3.00)	PHYS 232, MAST 219
PHYS 354 Electricity and Magnetism II (3.00)	PHYS 253, MAST 219
PHYS 367 Modern Physics and Relativity (3.00)	PHYS 205, PHYS 206 or equivalent
PHYS 377 Quantum Mechanics I (3.00)	PHYS 367
PHYS 435 Statistical Physics (3.00)	PHYS 334, PHYS 367

COURSE LOAD / COURSE SEQUENCE



PHYS 204, 205, 206 TUTORIALS (FALL 2023)

TUTORIALS

All tutorial sessions of a given week will cover the same material

Tutorials will start on September 11, 2023

	TUESDAY	WEDNESDAY	THURSDAY	
PHYS 205 CC 425	PHYS 206 CC 405			
PHYS 205 CC 305	PHYS 206 CC 305			
	PHYS 204 CC 405		PHYS 204 CC 405	PHYS 206 CC 425
	PHYS 204 CC 301	PHYS 206 CC 204	PHYS 204 CC 425	
PHYS 205 CC 425	PHYS 205 CC 204	PHYS 206 CC 301		
	PHYS 205 CC 301			

Each given week will cover the same material
starting on September 11

TUTORIALS

PHYS 232	BSc Tutorial	Mariana Frank
PHYS 245	BSc Tutorial	Pablo Bianucci
PHYS 253	BSc Tutorial	Christophe Grova
PHYS 334	BSc Tutorial	Laszlo Kalman
PHYS 345	BSc Tutorial	Sushil Misra
PHYS 355	BSc Tutorial	Joseph Shin
PHYS 377	BSc Tutorial	Mario D'Amico
PHYS 440	BSc Tutorial	<u>Ré</u> Mansbach

IMPORTANT DATES

DNE
Full refund
January 29, 2024

DISC
Academic withdrawal
April 17, 2024

- laszlo.kalman@concordia.ca
- Phone: 514-848-2424, ext. 5051

Department of Physics forms

- [Undergraduate Change of Concentration Form](#) 
(Change your current concentration, e.g., major to
- [PHYS 289/389 Application Form](#) 
- [PHYS 496/497 Application/Admission Form](#) 
(Application for an Honours or a Specialization in Phy



Faculty of Arts and Science forms

- [Request for Specific Transfer Credits and/or Exemptio](#)
(Transfer of credits awarded for previous post-secondary
- [Student Request Form](#) 
(Request exceptions to academic regulations or related mat
course substitutions and others.)



IMPORTANT FORMS

[link](#)



CO-OP PROGRAM AND C-EDGE

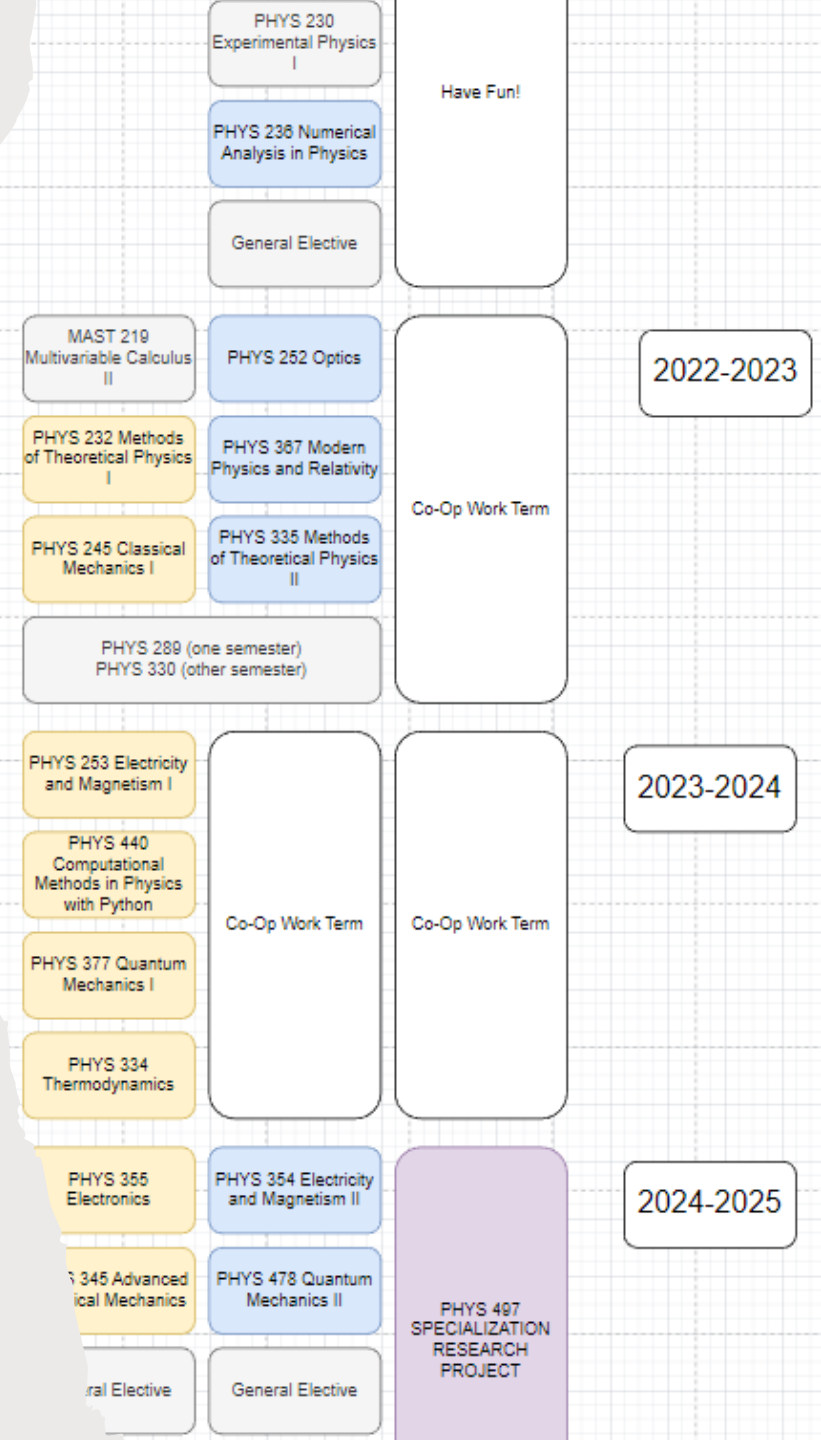
- Co-op program overview
- Co-op sequence
- A couple of examples
- C-Edge program overview

CO-OP PROGRAM

COMBINING STUDY WITH WORK EXPERIENCE

- Three paid work terms as part of your degree
- Training in CV writing and job application
- Must be a FULL-TIME student (>12 credits)
- GPA 2.8
- Contact Laszlo Kalman for details
- Requires detailed planning with Academic Advisor
- Visit [Institute for Co-operative Education](#)

CO-OP PROGRAM





CO-OP PROGRAM

Mariya Krasteva:

Co-op Internships:

McGill Space Institute

Presto Heinrich-Heine-Universität

European Space Agency

<https://nl.linkedin.com/in/mariya-krasteva>



Anastasia Kolokotronis

Anastasia Kolokotronis:

Coop Internships:

PERFORM Research Center,

Agilent Technologies (twice)

<https://ca.linkedin.com/in/anastasia-kolokotronis-649747a8>

C - E D G E

ONE OR TWO TERMS OF WORK EXPERIENCE

- Less restrictive
- One or two work terms whenever, as long not the last term
- Training in CV writing and job application
- Contact Laszlo Kalman for details
- Visit [Institute for Co-operative Education](#)

RESEARCH OPPORTUNITIES

[SUMMER RESEARCH OPPORTUNITIES](#)

[RESEARCH OPPORTUNITIES](#)

[SCIENCE COLLEGE](#)

NETWORKING CONFERENCES ONLINE

(FREE OR
NOT EXPENSIVE)

The image shows two overlapping website screenshots. The top screenshot is for the Canadian Undergraduate Medical Physics Conference, featuring a navigation bar with links for Home, Contact, How-To, Register, and Abstract Sub. The main banner includes the event title, dates (August 23 & 24, 2023), and a Virtual tag. Below this is the APS Physics logo and a navigation menu with links for Publications, Meetings & Events, Programs, Membership, Policy & Advocacy, Careers In Physics, Newsroom, and About. The bottom screenshot is for the Conferences for Undergraduate Women in Physics (CUWiP) website, with a navigation bar for Home, Conference Details, Host a Conference, FAQ, and History & Organization. It features a 'CUWiP FAQs' section with links for About and Eligibility, and a 'CUWiP 2024' announcement stating that applications closed on October 23, 2022, with a link to learn more about the 2024 event.

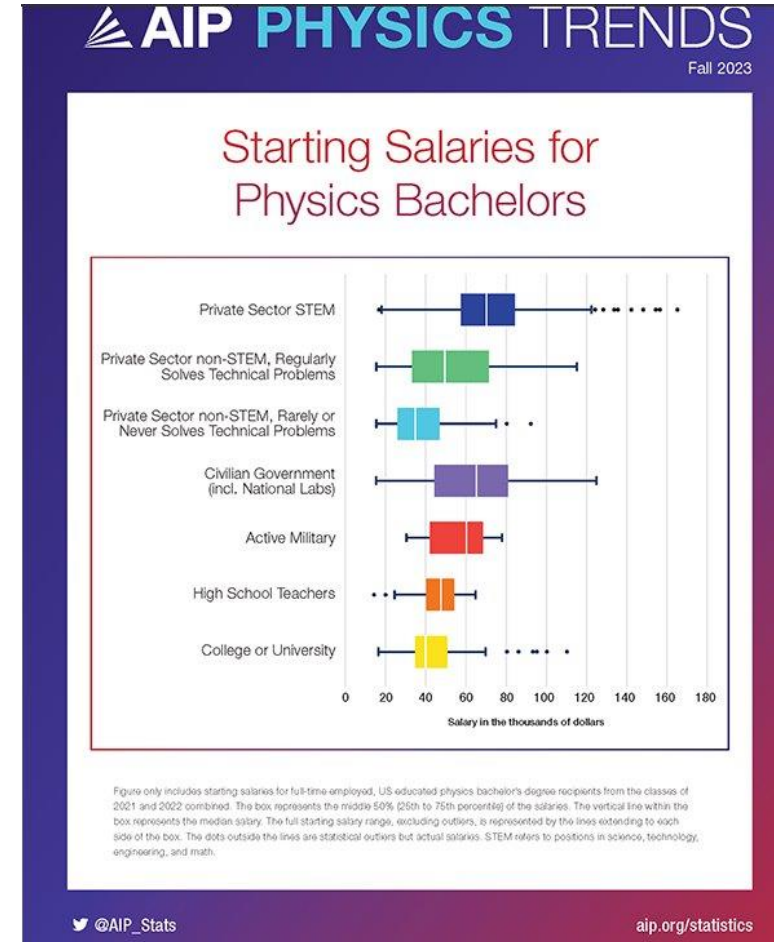
CAREER OPPORTUNITIES

During studies, something part-time, that might help finding a job after graduation, something that would count as used experience:

- Tutoring Physics and Math
- Working (paid or volunteer) on a project in a physics research lab on campus
- Working as a TA in the physics teaching labs (when work is available)

Career opportunities after graduation:

- [LINK](#)
- <https://www.aps.org/careers/physicists/data.cfm>
- <https://www.aip.org/statistics/multiple>



Careers Toolbox

Undergraduate Physics Students & their M



CAREER IN PHYSICS
VALUABLE
RESOURCE:

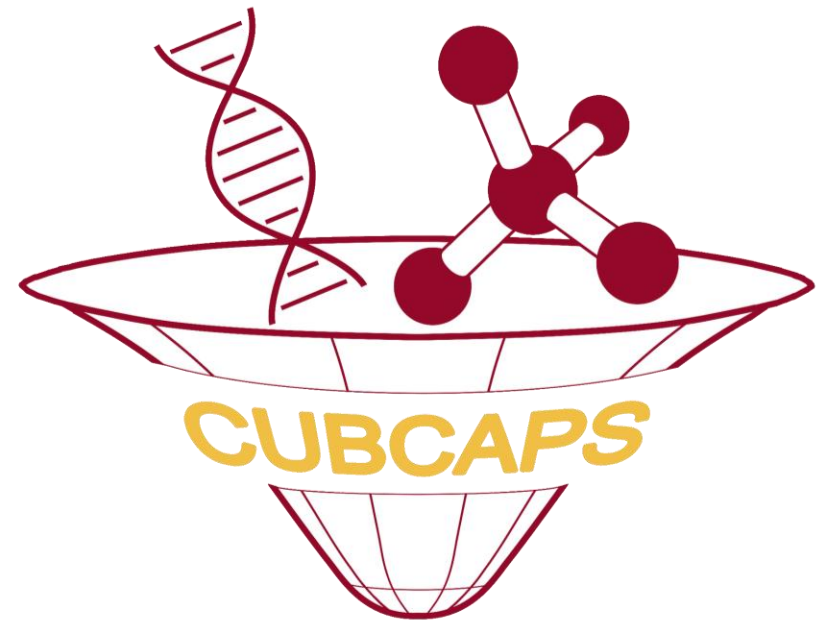


[CAREER TOOLBOX](#)

CONCORDIA
UNDERGRADUATE
BIOCHEMISTRY,
CHEMISTRY AND
PHYSICS SOCIETY

CUBCAPS

Physics Students DISCORD is a MUST!





HAVE A BALANCED LIFE

[STUDENT SUCCESS CENTRE](#)

[STUDENT HUB](#)

[STUDENTS SERVICES](#)

[ZEN DENS](#)

[FUTURE BOUNDS](#)

USEFUL LINKS RESOURCES

ADMINISTRATIVE:

- [Birks Student Centre](#)
- [International Student Office](#)
- [Office of Rights and Responsibilities](#)

PHYSICAL and MENTAL HEALTH:

- [First year Students counseling](#)
- [Health Services](#)
- [Access Centre for Students with Disabilities](#)
- [Counselling and Psychological Services](#)
- [Recreation and Athletics](#)



USEFUL LINKS RESOURCES

VARIOUS:

- [Campus Security](#)
- [Career Planning Services](#)
- [CU Off-Campus Housing](#)
- [Dean of Students Office](#)
- [French courses](#)
- [LIVE Centre \(volunteering\)](#)
- [Multi-faith and Spirituality Centre](#)
- [Navigator Program/Welcome Crew](#)

LIBRARY and BOOKSTORE:

- [Concordia Library](#)
- [Concordia Book Stop \(Bookstore\)](#)



ACADEMIC INTEGRITY

Concordia University places the principle of academic integrity, that is, **honesty, responsibility and fairness in all aspects of academic life**, as one of its highest values.

[Academic Code of Conduct](#)

The most common offense under the Academic Code of Conduct is plagiarism.

- if you complete a homework with someone else, indicate it/give them a credit;
- if you use references, mention it in your work;
- be honest on exams,
- **respect the intellectual property (IP) of faculty and fellow students.**

ACADEMIC INTEGRITY

Plagiarism Policy

To plagiarize is to use the work, ideas or words of someone else. Plagiarism may involve the following:

- Copying another person's work.
- Downloading, borrowing or buying from the Internet, projects, papers or assignments.
- Overuses of someone else's work
- Misrepresenting the sources that were used.
- Allowing another person to do the work to one's academic assignment.

Sourced from the Syllabus of:



Canadian Institute of Technology - CIT

Address: Zayed Center, Rr. Andon Zako Çajupi, nr. 6, Tiranë, Albania

URL: www.cit.edu.al

Tel: +355 42 229778

Course
Module

Fundamentals of Physics & Engineering Fundamentals
Fundamentals of Physics

DIVERSITY AND INCLUSION

Our statement:

“Our Department of Physics at Concordia University is a rapidly diversifying environment. We embrace this diversity by a firm commitment to inclusiveness. Everyone who dedicates their time and passion to physics belongs here and deserves to feel equally valued and respected no matter their gender, sexual orientation, ethnicity, religion, age, or disability”.

USEFUL LINKS RESOURCES



- [Concordia Student Union / CUBCAPS](#)
- [Counselling & Psychological Services](#)
- [Women in Physics Canada](#)
- [Queer Concordia](#)
- [Aboriginal Student Resource Centre](#)
- [Multi-Faith and Spirituality Centre](#)
- [Access Centre for Students with Disabilities](#)

USEFUL LINKS RESOURCES

Attend the next Station

Choose the date that best suits your schedule.

REGISTER TODAY

DROP IN ON ZOOM

STUDENT SERVICE STATION

Get the answers you need, on the spot!

Topics include:

- Questions for Birks
- Connecting with fellow students and getting involved on campus
- Health and wellness
- Co-op
- Academic advising (changing programs, course selection, DISC, etc.)
- Time management
- Online learning and exams
- Tips on finding a job
- CAQ & study permits

every Wednesday between 11:30 a.m. and 12:30 p.m.

LOYOLA LANDING

- **Studying or living at Loyola?**
- Skip the trip downtown and get connected to the resources you need at Loyola Landing.
- Many services offered to you as a Concordian are accessible on both campuses. At Loyola Landing, you can...
- [Meet with a career counsellor or advisor](#)
- [Improve your written assignments with a writing assistant](#)
- [Get new student support with a Welcome Crew Mentor](#)
- [Access assistance offered by the Student Advocacy Office](#)
- [Learn about the support tailored for student parents](#)
- [Engage with volunteers from the Sexual Assault Resource Centre](#)
- [Discover information about work-integrated learning and consult with a co-op advisor](#)
- [Receive guidance and support in matters of faith and spirituality](#)
- [Meet with the CSU Student Advocacy Centre to navigate student requests, complaints and issues relating to academic integrity and university conduct](#)
- [Get your Concordia ID card](#), get help with [DPrint](#), your on-campus printing solution, [locker rentals](#) or [parking](#) on campus with [Business Services](#)
- Use our lounge to relax or study
- Come find us in the lower level of the [Administration Building \(AD.103\)](#), Tuesday to Friday, from 9 a.m. to 5 p.m.
- You can also [join us on our weekly Zoom drop-in](#), Mondays, 10 a.m. to 12 p.m., to learn more about services at Loyola Landing.

HOMEROOM

Homerom provides a space for you to connect to other students. Through peer-to-peer facilitated virtual and in-person experiences you will meet and bond with other new Concordia students and learn how to navigate the university experience together.

Check us out on social media: @CUHomerom

Website:

<https://www.concordia.ca/students/homerom.html>

HELPFUL RESOURCES

NB!!!

Give us a call

514-848-2424, ext.
7369

Send us an
email

new@concordia.ca

WELCOME CREW MENTORS

New students: we're here to help!

Need a hand figuring out your next steps? From tips on making friends to pointers for finding the best resources or contact for your needs — we're experienced student mentors to help you successfully transition into first year at Concordia!

PEOPLE

Dr. Laszlo Kalman

Undergraduate and Co-op Program Director

Office: SP-365.10

laszlo.kalman@concordia.ca

Nata Zazubovits

BSc Coordinator and Academic Advisor

Office: SP-367.01

physics-advising@concordia.ca

- [BOOK a ZOOM meeting](#)
- [BOOK an IN-PERSON meeting](#)





BOOK AN ADVISING
APPOINTMENT

arrefour

MY CU ACCOUNT

SERVICES & RESOURCES



physics advising|

unt

BOOK AN ADVISING APPOINTMENT

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY
10 - 11AM		ZOOM		ZOOM
1 - 2PM			IN-PERSON	
2 - 3PM			ZOOM	
3 - 4PM	ZOOM	ZOOM		

BOOK a ZOOM meeting:

<https://calendly.com/physics-advising/zoom-advising-15-min>

BOOK an IN-PERSON meeting:

<https://calendly.com/physics-advising/advising-in-person>

THANK YOU

Q&A