

Samples Schedules and When Courses are Offered

The Drexel Undergraduate Physics Program

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Note: This is intended to be a guideline to what courses to take and when. It is not a contract. If there are any confusions/questions/mistakes in this document, please let me know, and I'll try to correct them.

Topical Courses

These are the official slate of courses which satisfy the undergraduate "Topical" requirements. You must take 4. Courses not listed here must be approved by the Director of Undergraduate studies prior to taking them if you intend them to count. 400-level courses in the math department will be considered if they are deemed especially relevant. Also, the Honors "Special Relativity" course is the only 200 level course which satisfies the topical requirement.

- Galactic Dynamics – PHYS 431
- Cosmology – PHYS 432
- Solid State Physics – PHYS 452
- Nanoscience – PHYS 453
- Biophysics – PHYS 461
- Single Molecule Biophysics – PHYS 463
- Nonlinear Dynamics – PHS 471
- Nuclear and Particle Physics

When Major Courses will be Offered

Courses are offered in the following terms:

All Years:

FALL	WINTER	SPRING
Contemporary Physics I Phys 217 - Thermo Phys 160 - Sci. Comp. Phys 311 - Mechanics I Phys 491 - Sen. Res. I	Contemporary Physics II Phys 223 - Modern Lab Phys 305 - Comp Phys II Phys 312 - Mechanics II Phys 492 - Sen. Res. II Phys 324 - Math Phys.	Contemporary Physics III Phys 105 - CompPhys I Phys 493 - Sen. Res. III

Even Years (e.g. 2008-2009)

FALL	WINTER	SPRING
Phys 321 - E&M I Phys 428 Quantum III Solid State Physics Nuclear/Particle	Phys 306 - Comp. Lab (E&M) Phys 322 - E&M II Phys 328 - Advanced Lab Nanoscience Nonlinear Dynamics	

Odd Years (e.g. 2009-2010)

FALL	WINTER	SPRING
Phys 326 - Quantum I Phys 226 - Inst. I Galactic Dynamics Biophysics	Phys 307 - Comp. Lab (Qtm) Phys 327 - Quantum II Phys 227 - Inst. II Phys 317 - Stat. Mech Cosmology Biophysics of Single Molecules	

Sample Schedules

Below are 4 samples schedules, the 4 year non-coop, and 5 year coop schedule, for students entering in either even (sequences A) and odd (sequences B) years.

Students are required to take *either* Instrumentation II (labeled with a superscript “A”) *or* both Computational Lab courses (labeled with superscripts “B”). Students are also required to complete a total of 185 credits or more.

Sequence 5A (5 year Co-op):

	FALL	WINTER	SPRING
Freshman	Contemporary Phys 1 (5.0) Math 121 - Calc I (4.0) Phys 160 - Intro. Sci. Comp (3.0) Eng 101 - Composition (3.0) Univ S101 (1.0) 17.0 cr.	Contemporary Phys 2 (5.0) Math 122 - Calc II (4.0) CS 171 (3.0) Eng 102 - Reading & Res. (3.0) Univ S101 (1.0) 17.0 cr.	Contemporary Phys 3 (5.0) Math 123 - Calc III (4.0) Phys 105 - CompPhys I (3.0) Eng 103 - Analysis (3.0) <i>elective</i> (3.0) 15.0 (+3.0) cr.
Sophomore	Phys 217 - Thermo (4.0) Math 200 - Calc IV (4.0) Math 201 - Lin. Alg. (4.0) Chem 101 - Chem I (4.0) 16.0 cr.	Phys 223 - Mod. Lab (3.0) Math 210 - Diff. Eqs. (4.0) Phys 305 - CompPhys II (3.0) Chem 102 - Chem II (4.0) Phys 324 - Math Phys (3.0) 17.0 cr.	Co-op
Pre-Junior	Phys 311 - Mechanics I (4.0) Phys 321 - E&M I (4.0) Chem 103/Bio 102 (5.0/4.0) <i>Liberal Elective</i> (3.0) 12.0/13.0 (+3.0) cr.	Phys 312 - Mechanics II (4.0) Phys 306 - Comp. Lab (E&M) ^B (2.0) Phys 322 - E&M II (4.0) Phys 328 - Advanced Lab (3.0) <i>Business Elective</i> (3.0) 11.0/13.0 (+3.0) cr.	Co-op
Junior	Phys 326 - Quantum I (4.0) Phys 226 - Inst. I (4.0) <i>Liberal Elective</i> (3.0) [Physics Topical] (3.0) 11.0 (+3.0) cr.	Phys 307 - Comp. Lab (Qtm) ^B (2.0) Phys 327 - Quantum II (4.0) Phys 227 Inst. II ^A (3.0) Phys 317 - Stat. Mech. (3.0) [Physics Topical] (3.0) 16.0/15.0 cr.	Co-op
Senior	Phys 491 - Sen. Res. I (3.0) Phys 408 - Seminar (1.0) Phys 428 - Quantum III (4.0) [Physics Topical] (3.0) <i>Liberal Elective</i> (3.0) 11.0 (+3.0) cr.	Phys 492 - Sen. Res. II (3.0) Phys 408 - Seminar (1.0) <i>elective</i> (3.0) [Physics Topical] (3.0) <i>Technical Elective</i> (3.0) 7.0 (+6.0) cr.	Phys 493 - Sen. Res. III (3.0) Phys 408 - Seminar (1.0) <i>elective</i> (3.0) <i>elective</i> (3.0) <i>Business Elective</i> (3.0) 4.0 (+9.0) cr.

Sequence 4A (4 year Non Co-op):

	FALL	WINTER	SPRING
Freshman	Contemporary Phys 1 (5.0) Math 121 - Calc I (4.0) Phys 160 - Intro. Sci. Comp (3.0) Eng 101 - Composition (3.0) Univ S101 (1.0) 17.0 cr.	Contemporary Phys 2 (5.0) Math 122 - Calc II (4.0) CS 171 (3.0) Eng 102 - Reading & Res. (3.0) Univ S101 (1.0) 17.0 cr.	Contemporary Phys 3 (5.0) Math 123 - Calc III (4.0) Phys 105 - CompPhys I (3.0) Eng 103 - Analysis (3.0) <i>elective</i> (3.0) 15.0 (+3.0) cr.
Sophomore	Phys 217 - Thermo (4.0) Math 200 - Calc IV (4.0) Math 201 - Lin. Alg. (4.0) Chem 101 - Chem I (4.0) 16.0 cr.	Phys 223 - Mod. Lab (3.0) Math 210 - Diff. Eqs. (4.0) Phys 305 - CompPhys II (3.0) Chem 102 - Chem II (4.0) Phys 317 - Stat. Mech. (3.0) Phys 324 - Math Phys. (3.0) 20.0 cr.	Chem 103/Bio 102 (5.0/4.0) <i>Liberal Elective</i> (3.0) <i>Business Elective</i> (3.0) <i>elective</i> (3.0) 5.0/4.0 (+9.0) cr.
Junior	Phys 311 - Mechanics I (4.0) Phys 321 - E&M I (4.0) <i>elective</i> (3.0) [Physics Topical] (3.0) 11.0 (+3.0) cr.	Phys 312 - Mechanics II (4.0) Phys 306 - Comp. Lab (E&M) ^B (2.0) Phys 322 - E&M II (4.0) Phys 328 - Advanced Lab (3.0) [Physics Topical] (3.0) 14.0/16.0	<i>Liberal Elective</i> (3.0) <i>Technical Elective</i> (3.0) <i>Business Elective</i> (3.0) <i>elective</i> (3.0) (12.0) cr.
Senior	Phys 491 - Sen. Res. I (3.0) Phys 408 - Seminar (1.0) Phys 326 - Quantum I (4.0) Phys 226 - Inst. I (4.0) [Physics Topical] (3.0) 11.0 (+3.0) cr.	Phys 492 - Sen. Res. II (3.0) Phys 408 - Seminar (1.0) Phys 307 - Comp. Lab (Qtm) ^B (2.0) Phys 327 - Quantum II (4.0) Phys 227 Inst. II ^A (3.0) [Physics Topical] (3.0) 16.0/15.0 cr.	Phys 493 - Sen. Res. III (3.0) Phys 408 - Seminar (1.0) Phys 517 - Grad Quantum II (3.0) <i>Liberal Elective</i> (3.0) 9.0 (+3.0) cr.

Sequence 5B (5 year co-op):

	FALL	WINTER	SPRING
Freshman	Contemporary Phys 1 (5.0) Math 121 - Calc I (4.0) Phys 160 - Intro. Sci. Comp (3.0) Eng 101 - Composition (3.0) Univ S101 (1.0) 17.0 cr.	Contemporary Phys 2 (5.0) Math 122 - Calc II (4.0) CS 171 (3.0) Eng 102 - Reading & Res. (3.0) Univ S101 (1.0) 17.0 cr.	Contemporary Phys 3 (5.0) Math 123 - Calc III (4.0) Phys 105 - CompPhys I (3.0) Eng 103 - Analysis (3.0) <i>elective</i> (3.0) 15.0 (+3.0) cr.
Sophomore	Phys 217 - Thermo (4.0) Math 200 - Calc IV (4.0) Math 201 - Lin. Alg. (4.0) Chem 101 - Chem I (4.0) 16.0 cr.	Phys 223 - Mod. Lab (3.0) Math 210 - Diff. Eqs. (4.0) Phys 305 - CompPhys II (3.0) Chem 102 - Chem II (4.0) Phys 324 - Math Phys. (3.0) 17.0 cr.	Co-op
Pre-Junior	Phys 311 - Mechanics I (4.0) Phys 326 - Quantum I (4.0) Phys 226 - Inst. I (4.0) Chem 103/Bio 102 (5.0/4.0) 17.0/16.0 cr.	Phys 312 - Mechanics II (4.0) Phys 307 - Comp. Lab (Qtm.) ^B (2.0) Phys 327 - Quantum II (4.0) Phys 227 - Inst. II ^A (3.0) Phys 317- Stat. Mech (3.0) 14.0/13.0 cr.	Co-op
Junior	Phys 321 - E&M I (4.0) Phys 428 - Quantum III (4.0) <i>Liberal Elective</i> (3.0) [Physics Topical] (3.0) 11.0 (+3.0) cr.	Phys 306 - Comp. Lab (E&M) ^B (2.0) Phys 322 - E&M II (4.0) Phys 328 - Advanced Lab (3.0) <i>Business Elective</i> (3.0) [Physics Topical] (3.0) 10.0/12.0 (+3.0) cr.	Co-op
Senior	Phys 491 - Sen. Res. I (3.0) Phys 408 - Seminar (1.0) <i>Liberal Elective</i> (3.0) <i>elective</i> (3.0) [Physics Topical] (3.0) 7.0 (+6.0) cr.	Phys 492 - Sen. Res. II (3.0) Phys 408 - Seminar (1.0) <i>Technical Elective</i> (3.0) <i>elective</i> (3.0) [Physics Topical] (3.0) 7.0 (+6.0) cr.	Phys 493 - Sen. Res. III (3.0) Phys 408 - Seminar (1.0) <i>Business Elective</i> (3.0) <i>elective</i> (3.0) <i>elective</i> (3.0) 4.0 (+9.0) cr.

Sequence 4B (4 year non co-op):

	FALL	WINTER	SPRING
Freshman	Contemporary Phys 1 (5.0) Math 121 - Calc I (4.0) Phys 160 - Intro. Sci. Comp (3.0) Eng 101 - Composition (3.0) Univ S101 (1.0) 17.0 cr.	Contemporary Phys 2 (5.0) Math 122 - Calc II (4.0) CS 171 (3.0) Eng 102 - Reading & Res. (3.0) Univ S101 (1.0) 17.0 cr.	Contemporary Phys 3 (5.0) Math 123 - Calc III (4.0) Phys 105 - CompPhys I (3.0) Eng 103 - Analysis (3.0) <i>elective</i> (3.0) 15.0 (+3.0) cr.
Sophomore	Phys 217 - Thermo (4.0) Math 200 - Calc IV (4.0) Math 201 - Lin. Alg. (4.0) Chem 101 - Chem I (4.0) 16.0 cr.	Phys 223 - Mod. Lab (3.0) Math 210 - Diff. Eqs. (4.0) Phys 305 - CompPhys II (3.0) Chem 102 - Chem II (4.0) Phys 324 - Math Phys (3.0) 17.0	Chem 103/Bio 102 (5.0/4.0) <i>Liberal Elective</i> (3.0) <i>Business Elective</i> (3.0) <i>elective</i> (3.0) 4.0/5.0 (+9.0) cr.
Junior	Phys 311 - Mechanics I (4.0) Phys 326 - Quantum I (4.0) Phys 226 - Inst. I (4.0) [Physics Topical] (3.0) 15.0 cr.	Phys 312 - Mechanics II (4.0) Phys 307 - Comp. Lab (Qtm.) ^B (2.0) Phys 327 - Quantum II (4.0) Phys 227 - Inst. II ^A (3.0) Phys 317- Stat. Mech (3.0) [Physics Topical] (3.0) 17.0/16.0 cr.	Phys 428 - Quantum III (4.0) <i>Business Elective</i> (3.0) <i>Liberal Elective</i> (3.0) <i>Technical Elective</i> (3.0) 4.0 (+9.0) cr.
Senior	Phys 491 - Sen. Res. I (3.0) Phys 408 - Seminar (1.0) Phys 321 - E&M I (4.0) [Physics Topical] (3.0) 11.0 cr.	Phys 492 - Sen. Res. II (3.0) Phys 408 - Seminar (1.0) Phys 306 - Comp. Lab (E&M) ^B (2.0) Phys 322 - E&M II (4.0) Phys 328 - Advanced Lab (3.0) [Physics Topical] (3.0) 14.0/16.0 cr.	Phys 493 - Sen. Res. III (3.0) Phys 408 - Seminar (1.0) <i>Liberal Elective</i> (3.0) <i>elective</i> (3.0) <i>elective</i> (3.0) 4.0 (+9.0) cr.