

LAS Science & Letters Physics Elective Options 10KV0240BSLA

Technical or Professional Option. In consultation with his/her adviser, each student will elect a set of technical or professional courses that address an intellectually coherent body of knowledge. At least 9 hours must be at the 200 level or higher. Required courses may not be included in the set. Students may select from a list of pre-approved options or design a custom option, subject to departmental approval.

Physics courses listed in the elective option do not satisfy option requirement if those course are used to satisfy the Flexible Physic Core (Lists A & B).

These options should be used in conjunction with the typical schedule

Astrophysics (can fulfill astronomy minor)

ASTR 210	General Astronomy	3
ASTR 350	Introduction to Cosmology	3
ASTR 404	Stellar Astrophysics	
	<i>additional 300 or 400 level astronomy course</i>	3
	<i>choose 2 of the following:</i>	
ASTR 405	Solar Sys and IS Medium	3
ASTR 406	Galaxies and the Universe	3
ASTR 414	Astronomical Techniques	4
	total = 18-19 hours	

Biophysics

CHEM 104/105	General Chemistry II/Lab II	3/1
or CHEM 204/205	Accelerated Chemistry II/Lab II	3/2
or CHEM 232/233	Elementary Organic Chemistry I/Lab I	3/2
or CHEM 236/237	Fundamental Organic Chem I /Structure and Synthesis	3/3
BIOP 401	Introduction to Biophysics	3
BIOP 420	Molecular Biophysics	3
	<i>choose 1 of the following:</i>	
PHYS 427	Thermo & Statistical Mechanics	4
MCB 446	Physical Biochemistry (note prerequisites*)	3
BIOE 498	Special Topics	3
	total = 18-21 hours	

* CHEM 440, Physical Chemistry Principles, or 344, Physical Chemistry I;
MCB 350, Introductory Biochemistry, recommended

Computational Physics

CS 125	Introduction to Computer Science (to replace CS 101)	4
CS 257	Numerical Methods	3
or CS 450	Intro to Numerical Analysis	3
CS 225	Date Structure & Softw Princ	3
or CS 400	Data Structure, Non-CS Majors	3
MATH 415	Linear Algebra	3
	<i>choose 2 of the following</i>	
CS 455	Numerical Methods for PDEs	3
CS 458	Numerical Linear Algebra	3
CS 459	Numerical Approx and ODEs	3
CS 418	Computer Graphics	3
CS 420	Intro to Parallel Programming	3
MATH 461	Probability Theory I	3
MSE 482	Phys and Soc Sci Simulations	3
ATMS 502	Numerical Fluid Dynamics	4
MCB 417	Computational Neurobiol Method	4
	total = 19-21 hours	

(CS 125 doesn't count toward option, rather toward degree requirement.)

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Earth Science

GEOL 107	Physical Geology	4
GEOL 108	Historical Geology	4
GEOL 452	Introduction to Geophysics	4
or GEOL 432	Mineralogy and Mineral Optics	4
or GEOL 450	Physics of the Earth	3
total hours = 12-15 hrs		

Environmental Science

coursework for Environmental Fellows Program
<http://www.environ.uiuc.edu/efp/>

(General Chemistry sequence is recommended: CHEM 102/103, CHEM 104/105)

NRES 244	Sci-Values of Eenvt Decisions	3
CEE 330	Environmental Quality Engineering	3
<i>choose 2 of the following:</i>		
CHEM 460	Green Chemistry (many CHEM prereqs)	3
CPSC 432	Plants and Global change (prereq IB 103, Intro to Plant Biol)	3
ENVS 431	Toxic Substances in the Environment (prereq: basic bio/chem.)	3
GEOG 408	Watershed Analysis	4
GEOG 466	Environmental Policy	3
ENVS 380	Environmental Geology	4
NRES 420	Restoration Ecology (prereq: intro plant bio or ecology crs)	4
IB 452	Ecosystem Ecology	3
UP 446	Ecological Numeracy	3
* GEOL 481	Earth Systems Modeling	4
* CEE 430	Managing Wastewaters in Aquatic Ecosystems (prereq: CEE 330)	2
* NRES 449	Science, Technology, and Environmental Policy	4
total = 12-14 hours		
* recommended		

Science Writing

(There may be enrollment restrictions on the journalism courses.)

JOUR 200	Introduction to Journalism (satisfies Adv Comp requirement)	3
BTW 261	Principles Tech Commun (Adv Comp)	3
JOUR 47	Magazine Writing	3
JOUR 400	Reporting 1	4
JOUR 415	Reporting 2	4

total = 17 hours

Pre-Med

(Consult with the Career Center Pre-Health Professional Counselors)
<http://www.careercenter.uiuc.edu/text/healthprof/index.asp>
715 S. Wright Street, Champaign
333-7154

Pre-Law

http://www.las.uiuc.edu/students/careeraids/pre_law/pre_law/index.html

See the pre-law advising office: in the LAS College, located in 270 Lincoln Hall. Consult with your physics advisor to approve pre-law option courses. You need to take a minimum of 12 hours beyond courses used to fulfill general education requirements in one or more of the following subjects:

History
Political Science
Speech Communication (SPCOM 111 & 112 to fulfill the COMP I requirement)
Psychology
Sociology
Business Administration
Philosophy
Literature
Economics
Accountancy
Classics
Computers
Other courses that deal to law & policy (e.g. GE 292 Engineering Law)
12 hours

5.22.04/III

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