

The following courses are for the major requirements and are offered in no particular order. Please consult with your advisor for scheduling sequence.

<u>COURSE</u>	<u>USP</u>	<u>CREDITS</u>	<u>PREREQUISITES</u>
<input type="checkbox"/> PHYS 1210 Engineering Physics I	SP	4.0	C in MATH 2200 & concur MATH 2205
<input type="checkbox"/> or PHYS 1310 College Physics I (F)	SP	4.0	MATH 2200 & 2205 concur
<input type="checkbox"/> PHYS 1220 Engineering Physics II	SP	4.0	MATH 2205 & concur 2210
<input type="checkbox"/> or PHYS 1320 College Physics II (S)	SP	4.0	1310, MATH 2200, 2205 & MATH 2210 concur
<input type="checkbox"/> PHYS 2310 Physics III: Waves and Optics (F)		4.0	1220 or 1320 or equiv
<input type="checkbox"/> PHYS 2320 Physics IV: Modern Physics (S)		3.0	1220 or 1320 or equiv
<input type="checkbox"/> PHYS 3650 Advanced Lab in Modern Physics & Electronics		4.0	WA & PHYS 2310 or 2320
<input type="checkbox"/> PHYS 4210 Classical Mechanics (S)		3.0	PHYS 2310 or equiv, MATH 2210 or equiv
<input type="checkbox"/> PHYS 4310 Quantum Mechanics (F)		3.0	4210
<input type="checkbox"/> PHYS 4410 Electricity and Magnetism (F)		3.0	PHYS 2310 or equiv & MATH 2210
<input type="checkbox"/> PHYS 4510 Thermodynamics and Statistical Mechanics (S)		3.0	4310
<input type="checkbox"/> MATH 2200 Calculus I	QB	4.0	C in MATH 1405 or 1450 or level 5 on Math Placement or Math ACT 27 or Math SAT 600
<input type="checkbox"/> MATH 2205 Calculus II		4.0	C in MATH 2200 or Adv Plcmnt MATH 2200
<input type="checkbox"/> MATH 2210 Calculus III		4.0	C in MATH 2205 or Adv Plcmnt MATH 2205
<input type="checkbox"/> MATH 2310 Applied Differential Equations I		3.0	C in MATH 2205
<input type="checkbox"/> COSC 1010 Introduction to Computer Science I		4.0	C in MATH 1400 or Level 4 on Math Plcmnt within 1 year prior
<input type="checkbox"/> CHEM 1020 General Chemistry I	SP	4.0	ACT Math 23, or MATH 1400, or 1405 or 1450 concur

Upper level physics elective:

Course: _____

Misc upper division (to complete 48 hrs at 3000+ level) – 12 hours

Course: _____

Course: _____

Course: _____

Course: _____

Course: _____

Examples:

ASTR 4610 Astrophysics (Pre: ASTR 2310, PHYS 2310 and concur in PHYS 4210 & 4410) – Offered fall semester

ASTR 5150 Astrophysical Techniques

ASTR 5420/30 Stellar Atmospheres

ASTR 5440 Milky Way

ASTR 5460 Cosmology

ASTR 5465 Galaxies

ASTR 5470 Interstellar Matter (Pre: ASTR 5460)

COSC 4530 Image Processing (Pre: MATH 2205 & 2250, COSC 1030 or 3070)

ENGL 4010 Technical Writing - WC (Pre: WA & WB)

GEOL 3500 Global Change (Pre: junior standing & intro course in the physical sciences)

GEOL 4200 Planetary Geology (Pre: senior standing & 20 hrs in Geology)

MATH 4230 Complex Analysis (Pre: C in MATH 2210) – Offered spring semester

MATH/COSC 4340 Numerical Analysis (C in COSC 1010, MATH 2310, & either MATH 2250 or 3310; or consent) – Offered spring

MATH 4440 Partial Diff Equations (Pre: C in MATH 2210 & 2310)

PHIL 3140 Philosophy of Science (Pre: 6 hrs of physical, biological or social science)

PHIL 3500 History of Science (Pre: 3 hrs of PHIL, 3 hrs of laboratory science)

PHYS 4350 Atomic & Molecular Physics (Pre: PHYS 4210, 4310, 4420 & MATH 4440) – Offered spring semester

PHYS 4510 Statistical Mechanics (Pre: PHYS 4310) – Offered spring semester

PHYS 4830 Math Physics I (Pre: PHYS 2310 or 2320 & MATH 2210)

STAT 4220 Engineering Statistics (Pre: MATH 2205 or 2355, or equiv)

Also highly recommended for graduate school track students are: PHYS 4350, 4830

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<input type="checkbox"/> PHYS 1220 Engineering Physics II	SP	4.0	MATH 2205 & concur 2210
<input type="checkbox"/> PHYS 2310 Physics III: Waves and Optics (F)		4.0	1220 or 1320 or equiv
<input type="checkbox"/> PHYS 2320 Physics IV: Modern Physics (S)		3.0	1220 or 1320 or equiv
<input type="checkbox"/> PHYS 3640 Mod Electronics and Exp Techniques		4.0	PHYS 2320
<input type="checkbox"/> PHYS 3650 Advanced Lab in Modern Physics and Electronics		4.0	WA&PHYS2310or2320
<input type="checkbox"/> PHYS 4210 Classical Mechanics (S)		3.0	PHYS 2310 or equiv, MATH 2210 or equiv
<input type="checkbox"/> PHYS 4310 Quantum Mechanics (F)		3.0	4210
<input type="checkbox"/> PHYS 4410 Electricity and Magnetism (F)		3.0	PHYS 2310 or equiv & MATH 2210
<input type="checkbox"/> PHYS 4420 Electricity and Magnetism II (S)		3.0	PHYS 4410
<input type="checkbox"/> PHYS 4510 Thermodynamics and Statistical Mechanics (S)		3.0	4310
<input type="checkbox"/> PHYS 4840 Mathematical and Computational Physics II		3.0	
<input type="checkbox"/> MATH 2200 Calculus I	QB	4.0	C in MATH 1405 or 1450 or level 5 on Math Placement or Math ACT 27 or Math SAT 600
<input type="checkbox"/> MATH 2205 Calculus II		4.0	C in MATH 2200 or Adv Plcmnt MATH 2200
<input type="checkbox"/> MATH 2210 Calculus III		4.0	C in MATH 2205 or Adv Plcmnt MATH 2205
<input type="checkbox"/> MATH 2250 Elementary Linear Algebra		3.0	C in MATH 2200 or 2350
<input type="checkbox"/> MATH 2310 Applied Differential Equations I		3.0	C in MATH 2205
<input type="checkbox"/> MATH 4230 Introduction to Complex Analysis (S)		3.0	C in MATH 2210
<input type="checkbox"/> MATH 4440 Partial Differential Equations		3.0	C in MATH 2210&2310
<input type="checkbox"/> COSC 1010 Intro to Computer Science		4.0	C in MATH 1400 or Level 4 on Math Plcmnt within 1 year prior
<input type="checkbox"/> CHEM 1020 General Chemistry I	SP	4.0	ACT Math 23, or MATH 1400,or1405or1450concur

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PHIL 3500 History of Science (Pre: 3 hrs of PHIL, 3 hrs of laboratory science)

PHYS 4350 Atomic & Molecular Physics (Pre: PHYS 4210, 4310, 4420 & MATH 4440) – Offered spring semester

PHYS 4510 Statistical Mechanics (Pre: PHYS 4310) – Offered spring semester

PHYS 4830 Math Physics I (Pre: PHYS 2310 or 2320 & MATH 2210)

STAT 4220 Engineering Statistics (Pre: MATH 2205 or 2355, or equiv)

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<input type="checkbox"/> PHYS 4510 Thermodynamics & Stat Mechanics (S)		3.0	4310
<input type="checkbox"/> PHYS 4830 Mathematical & Comp Physics I <i>(PHYS 4830 can be replaced by both MATH 4230 and 4440)</i>		3.0	PHYS 2310 or 2320 & MATH 2210
<input type="checkbox"/> PHYS 4840 Mathematical & Comp Physics II		3.0	4830
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<input type="checkbox"/> MATH 2205 Calculus II		4.0	C in MATH 2200 or Adv Plcmnt MATH 2200
<input type="checkbox"/> MATH 2210 Calculus III		4.0	C in MATH 2205 or Adv Plcmnt MATH 2205
<input type="checkbox"/> MATH 2250 Elementary Linear Algebra		3.0	C in MATH 2200 or 2350
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<input type="checkbox"/> CHEM 1020 General Chemistry I	SP	4.0	ACT Math 23, or MATH 1400, or 1405 or 1450 concur

Elected Technical Area (for example, meteorology):

<input type="checkbox"/> Course: _____	_____	_____	_____
<input type="checkbox"/> Course: _____	_____	_____	_____
<input type="checkbox"/> Course: _____	_____	_____	_____
<input type="checkbox"/> Course: _____	_____	_____	_____
<input type="checkbox"/> Course: _____	_____	_____	_____

Upper division – 3000+ level:

<input type="checkbox"/> Course: _____	_____	_____	_____
<input type="checkbox"/> Course: _____	_____	_____	_____
<input type="checkbox"/> Course: _____	_____	_____	_____

Also highly recommended for graduate school track students are: Math 4230, 4440; PHYS 4350, 4830