

**MDS 315 BS Applied Physics Div A**

Yr 1 FL	C PHY U100 Physics at NU	1.0 SH
Yr 1 FL	C ENG U111 College Writing	4.0 SH
Yr 1 FL	C MTH U241 Calculus 1 for Sci/Engr	4.0 SH
Yr 1 FL	C PHY U161 Physics 1	4.0 SH
	Coreq(s): C PHY U162	
Yr 1 FL	C PHY U162 Lab for PHY U161	1.0 SH
	Coreq(s): C PHY U161	
Yr 1 FL	NU Core course or Elective	4.0 SH
	Semester Subtotal .....	18.0 SH
Yr 1 SP	C PHY U165 Physics 2	4.0 SH
	Coreq(s): C PHY U166	
Yr 1 SP	C PHY U166 Lab for PHY U165	1.0 SH
	Coreq(s): C PHY U165	
Yr 1 SP	C MTH U242 Calculus 2 for Sci/Engr	4.0 SH
Yr 1 SP	A GE U111 Engr Prob Solv and Comp	4.0 SH
Yr 1 SP	NU Core course or Elective	4.0 SH
	Semester Subtotal .....	17.0 SH
Yr 1 S1	VACATION	0.0 SH
	Semester Subtotal .....	0.0 SH
Yr 1 S2	VACATION	0.0 SH
	Semester Subtotal .....	0.0 SH
Yr 2 FL	C CHM U211 General Chemistry 1	4.0 SH
	Coreq(s): C CHM U212 C CHM U213	
Yr 2 FL	C CHM U212 Lab for CHM U211	1.0 SH
	Coreq(s): C CHM U211 C CHM U213	
Yr 2 FL	C CHM U213 Recitation for CHM U211	0.0 SH
	Coreq(s): C CHM U211 C CHM U212	
Yr 2 FL	C MTH U341 Calculus 3 for Sci/Engr	4.0 SH
	Coreq(s): C MTH U342	
Yr 2 FL	C PHY U371 Electronics	4.0 SH
	Coreq(s): C PHY U372	
Yr 2 FL	C PHY U372 Lab for PHY U371	0.0 SH
	Coreq(s): C PHY U371	
Yr 2 FL	C PHY U303 Modern Physics	4.0 SH
	Semester Subtotal .....	17.0 SH
Yr 2 SP	C PHY U305 Thermo & Statistical Mechanics	4.0 SH
Yr 2 SP	C MTH U345 Ordinary Differential Equation	4.0 SH
Yr 2 SP	C MTH U371 Linear Algebra	4.0 SH
Yr 2 SP	M COP U101 Professional Development Co-op	1.0 SH
Yr 2 SP	NU Core Course or Elective	4.0 SH
	Semester Subtotal .....	17.0 SH
Yr 2 S1	VACATION	0.0 SH
	Semester Subtotal .....	0.0 SH
Yr 2 S2	CO-OP	0.0 SH
	Semester Subtotal .....	0.0 SH
Yr 3 FL	CO-OP	0.0 SH
	Semester Subtotal .....	0.0 SH
Yr 3 SP	C PHY U602 Electricity & Magnetism	4.0 SH
Yr 3 SP	C PHY U660 Intro Nanoscience & Nanotech	4.0 SH
Yr 3 SP	NU Core course or Elective	4.0 SH
Yr 3 SP	NU Core course or Elective	4.0 SH
	Semester Subtotal .....	16.0 SH
Yr 3 S1	C PHY U600 Advanced Physics Lab 1	4.0 SH
Yr 3 S1	PHY Technical Elective	4.0 SH
	Semester Subtotal .....	8.0 SH

Yr 3 S2	CO-OP	0.0 SH
	Semester Subtotal .....	0.0 SH
Yr 4 FL	CO-OP	0.0 SH
	Semester Subtotal .....	0.0 SH
Yr 4 SP	C PHY U606 Math & Comp Methds for Physics	4.0 SH
Yr 4 SP	C ENG U301 Advanced Writing in Discipline	4.0 SH
Yr 4 SP	NU Core Course or Elective	4.0 SH
Yr 4 SP	PHY Technical Elective	4.0 SH
	Semester Subtotal .....	16.0 SH
Yr 4 S1	C PHY U954 Experiential Ed Directed Study	4.0 SH
Yr 4 S1	NU Core Course or Elective	4.0 SH
	Semester Subtotal .....	8.0 SH
Yr 4 S2	CO-OP	0.0 SH
	Semester Subtotal .....	0.0 SH
Yr 5 FL	CO-OP	0.0 SH
	Semester Subtotal .....	0.0 SH
Yr 5 SP	C PHY U700 Adv Physics Lab 2	4.0 SH
Yr 5 SP	PHY Technical Elective	4.0 SH
Yr 5 SP	NU Core Course or Elective	4.0 SH
Yr 5 SP	PHY Advanced Elective	4.0 SH
	Semester Subtotal .....	16.0 SH

**MDS 315 BS Applied Physics Div C**

Yr 1 FL	C PHY U100 Physics at NU	1.0 SH
Yr 1 FL	C ENG U111 College Writing	4.0 SH
Yr 1 FL	C PHY U161 Physics 1	4.0 SH
	Coreq(s): C PHY U162	
Yr 1 FL	C PHY U162 Lab for PHY U161	1.0 SH
	Coreq(s): C PHY U161	
Yr 1 FL	C MTH U241 Calculus 1 for Sci/Engr	4.0 SH
Yr 1 FL	NU Core course or Elective	4.0 SH
	Semester Subtotal .....	18.0 SH
Yr 1 SP	C PHY U165 Physics 2	4.0 SH
	Coreq(s): C PHY U166	
Yr 1 SP	C PHY U166 Lab for PHY U165	1.0 SH
	Coreq(s): C PHY U165	
Yr 1 SP	C MTH U242 Calculus 2 for Sci/Engr	4.0 SH
Yr 1 SP	A GE U111 Engr Prob Solv and Comp	4.0 SH
Yr 1 SP	NU Core course or Elective	4.0 SH
	Semester Subtotal .....	17.0 SH
Yr 1 S1	VACATION	0.0 SH
	Semester Subtotal .....	0.0 SH
Yr 1 S2	VACATION	0.0 SH
	Semester Subtotal .....	0.0 SH

Yr 2 FL	C CHM U211 General Chemistry 1 Coreq(s): C CHM U212 C CHM U213	4.0 SH
Yr 2 FL	C CHM U212 Lab for CHM U211 Coreq(s): C CHM U211 C CHM U213	1.0 SH
Yr 2 FL	C CHM U213 Recitation for CHM U211 Coreq(s): C CHM U211 C CHM U212	0.0 SH
Yr 2 FL	C PHY U371 Electronics Coreq(s): C PHY U372	4.0 SH
Yr 2 FL	C PHY U372 Lab for PHY U371 Coreq(s): C PHY U371	0.0 SH
Yr 2 FL	C PHY U305 Thermo & Statistical Mechanics	4.0 SH
Yr 2 FL	C MTH U341 Calculus 3 for Sci/Engr Coreq(s): C MTH U342	4.0 SH
	Semester Subtotal .....	17.0 SH
Yr 2 SP	C MTH U371 Linear Algebra	4.0 SH
Yr 2 SP	C PHY U303 Modern Physics	4.0 SH
Yr 2 SP	C MTH U345 Ordinary Differential Equation	4.0 SH
Yr 2 SP	NU Core Course or Elective	4.0 SH
	Semester Subtotal .....	16.0 SH
Yr 2 S1	VACATION	0.0 SH
	Semester Subtotal .....	0.0 SH
Yr 2 S2	VACATION	0.0 SH
	Semester Subtotal .....	0.0 SH
Yr 3 FL	C ENG U301 Advanced Writing in Discipline	4.0 SH
Yr 3 FL	C PHY U606 Math & Comp Methds for Physics	4.0 SH
Yr 3 FL	NU Core course or Elective	4.0 SH
Yr 3 FL	PHY Technical Elective	4.0 SH
	Semester Subtotal .....	16.0 SH
Yr 3 SP	C PHY U600 Advanced Physics Lab 1	4.0 SH
Yr 3 SP	C PHY U660 Intro Nanoscience & Nanotech	4.0 SH
Yr 3 SP	C PHY U602 Electricity & Magnetism	4.0 SH
Yr 3 SP	NU Core course or Elective	4.0 SH
	Semester Subtotal .....	16.0 SH
Yr 3 S1	VACATION	0.0 SH
	Semester Subtotal .....	0.0 SH
Yr 3 S2	VACATION	0.0 SH
	Semester Subtotal .....	0.0 SH
Yr 4 FL	C PHY U954 Experiential Ed Directed Study	4.0 SH
Yr 4 FL	NU Core Course or Elective	4.0 SH
Yr 4 FL	PHY Technical Elective	4.0 SH
Yr 4 FL	NU Core Course or Elective	4.0 SH
	Semester Subtotal .....	16.0 SH
Yr 4 SP	C PHY U700 Adv Physics Lab 2	4.0 SH
Yr 4 SP	PHY Advanced Elective	4.0 SH
Yr 4 SP	PHY Technical Elective	4.0 SH
Yr 4 SP	NU Core Course or Elective	4.0 SH
	Semester Subtotal .....	16.0 SH

**MDS 553 BSMS Applied Physics and Engineering Div A**

Yr 1 FL	C PHY U100 Physics at NU	1.0 SH
Yr 1 FL	C MTH U241 Calculus 1 for Sci/Engr	4.0 SH
Yr 1 FL	C ENG U111 College Writing	4.0 SH
Yr 1 FL	C CHM U211 General Chemistry 1 Coreq(s): C CHM U212 C CHM U213	4.0 SH
Yr 1 FL	C CHM U212 Lab for CHM U211 Coreq(s): C CHM U211 C CHM U213	1.0 SH
Yr 1 FL	C CHM U213 Recitation for CHM U211 Coreq(s): C CHM U211 C CHM U212	0.0 SH
Yr 1 FL	C PHY U161 Physics 1 Coreq(s): C PHY U162	4.0 SH
Yr 1 FL	C PHY U162 Lab for PHY U161 Coreq(s): C PHY U161	1.0 SH
	Semester Subtotal .....	19.0 SH
Yr 1 SP	C PHY U165 Physics 2 Coreq(s): C PHY U166	4.0 SH
Yr 1 SP	C PHY U166 Lab for PHY U165 Coreq(s): C PHY U165	1.0 SH
Yr 1 SP	C MTH U242 Calculus 2 for Sci/Engr	4.0 SH
Yr 1 SP	A GE U111 Engr Prob Solv and Comp	4.0 SH
Yr 1 SP	NU Core course or Elective	4.0 SH
	Semester Subtotal .....	17.0 SH
Yr 1 S1	VACATION	0.0 SH
	Semester Subtotal .....	0.0 SH
Yr 1 S2	VACATION	0.0 SH
	Semester Subtotal .....	0.0 SH
Yr 2 FL	C PHY U303 Modern Physics	4.0 SH
Yr 2 FL	C PHY U371 Electronics Coreq(s): C PHY U372	4.0 SH
Yr 2 FL	C PHY U372 Lab for PHY U371 Coreq(s): C PHY U371	0.0 SH
Yr 2 FL	C MTH U341 Calculus 3 for Sci/Engr Coreq(s): C MTH U342	4.0 SH
Yr 2 FL	GE Undergraduate Elective	4.0 SH
	Semester Subtotal .....	16.0 SH
Yr 2 SP	A ECE U400 Linear Circuits Coreq(s): A ECE U401	4.0 SH
Yr 2 SP	C MTH U345 Ordinary Differential Equation	4.0 SH
Yr 2 SP	C PHY U305 Thermo & Statistical Mechanics	4.0 SH
Yr 2 SP	M COP U101 Professional Development Co-op	1.0 SH
Yr 2 SP	NU Core course or Elective	4.0 SH
	Semester Subtotal .....	17.0 SH
Yr 2 S1	VACATION	0.0 SH
	Semester Subtotal .....	0.0 SH
Yr 2 S2	CO-OP	0.0 SH
	Semester Subtotal .....	0.0 SH
Yr 3 FL	CO-OP	0.0 SH
	Semester Subtotal .....	0.0 SH
Yr 3 SP	C PHY U602 Electricity & Magnetism	4.0 SH
Yr 3 SP	A ECE U402 Electronics Coreq(s): A ECE U403	4.0 SH
Yr 3 SP	A ECE U403 Lab for ECE U402 Coreq(s): A ECE U402	1.0 SH
Yr 3 SP	A ECE U464 Linear Systems	4.0 SH
Yr 3 SP	A ECE U465 Lab for ECE U464	1.0 SH
Yr 3 SP	C ENG U301 Advanced Writing in Discipline	4.0 SH
	Semester Subtotal .....	18.0 SH

Yr 3 S1	C PHY U603 ElectroMagnetic Waves & Optics	4.0 SH
Yr 3 S1	C PHY U600 Advanced Physics Lab 1	4.0 SH
	Semester Subtotal .....	8.0 SH
Yr 3 S2	CO-OP	0.0 SH
	Semester Subtotal .....	0.0 SH
Yr 4 SP	C PHY U617 Quantum Mechanics	4.0 SH
Yr 4 SP	A ECE G200 Linear Systems Analysis	4.0 SH
Yr 4 SP	A ECE G204 Appl Prob & Stochastic Proc	4.0 SH
Yr 4 SP	NU Core course or Elective	4.0 SH
	Semester Subtotal .....	16.0 SH
Yr 4 S1	NU Core course or Elective	4.0 SH
Yr 4 S1	NU Core Course or Elective	4.0 SH
	Semester Subtotal .....	8.0 SH
Yr 4 S2	VACATION	0.0 SH
	Semester Subtotal .....	0.0 SH
Yr 5 FL	C PHY U954 Experiential Ed Directed Study	4.0 SH
Yr 5 FL	ECE Graduate Elective	4.0 SH
Yr 5 FL	ECE Graduate Elective	4.0 SH
Yr 5 FL	ECE Graduate Elective	4.0 SH
	Semester Subtotal .....	16.0 SH
Yr 5 SP	C PHY U700 Adv Physics Lab 2	4.0 SH
Yr 5 SP	ECE Graduate Elective	4.0 SH
Yr 5 SP	ECE Graduate Elective	4.0 SH
Yr 5 SP	ECE Graduate Elective	4.0 SH
	Semester Subtotal .....	16.0 SH

**MDS 553 BSMS Applied Physics and Engineering Div C**

Yr 1 FL	C PHY U100 Physics at NU	1.0 SH
Yr 1 FL	C MTH U241 Calculus 1 for Sci/Engr	4.0 SH
Yr 1 FL	C ENG U111 College Writing	4.0 SH
Yr 1 FL	C CHM U211 General Chemistry 1	4.0 SH
	Coreq(s): C CHM U212 C CHM U213	
Yr 1 FL	C CHM U212 Lab for CHM U211	1.0 SH
	Coreq(s): C CHM U211 C CHM U213	
Yr 1 FL	C CHM U213 Recitation for CHM U211	0.0 SH
	Coreq(s): C CHM U211 C CHM U212	
Yr 1 FL	C PHY U161 Physics 1	4.0 SH
	Coreq(s): C PHY U162	
Yr 1 FL	C PHY U162 Lab for PHY U161	1.0 SH
	Coreq(s): C PHY U161	
	Semester Subtotal .....	19.0 SH
Yr 1 SP	C PHY U165 Physics 2	4.0 SH
	Coreq(s): C PHY U166	
Yr 1 SP	C PHY U166 Lab for PHY U165	1.0 SH
	Coreq(s): C PHY U165	
Yr 1 SP	A GE U111 Engr Prob Solv and Comp	4.0 SH
Yr 1 SP	C MTH U242 Calculus 2 for Sci/Engr	4.0 SH
Yr 1 SP	NU Core course or Elective	4.0 SH
	Semester Subtotal .....	17.0 SH
Yr 1 S1	VACATION	0.0 SH
	Semester Subtotal .....	0.0 SH
Yr 1 S2	VACATION	0.0 SH
	Semester Subtotal .....	0.0 SH

Yr 2 FL	C PHY U303 Modern Physics	4.0 SH
Yr 2 FL	C PHY U371 Electronics	4.0 SH
	Coreq(s): C PHY U372	
Yr 2 FL	C PHY U372 Lab for PHY U371	0.0 SH
	Coreq(s): C PHY U371	
Yr 2 FL	C MTH U341 Calculus 3 for Sci/Engr	4.0 SH
	Coreq(s): C MTH U342	
Yr 2 FL	NU Core course or Elective	4.0 SH
	Semester Subtotal .....	16.0 SH
Yr 2 SP	A ECE U400 Linear Circuits	4.0 SH
	Coreq(s): A ECE U401	
Yr 2 SP	C MTH U345 Ordinary Differential Equation	4.0 SH
Yr 2 SP	C PHY U305 Thermo & Statistical Mechanics	4.0 SH
Yr 2 SP	NU Core course or Elective	4.0 SH
	Semester Subtotal .....	16.0 SH
Yr 2 S1	VACATION	0.0 SH
	Semester Subtotal .....	0.0 SH
Yr 2 S2	VACATION	0.0 SH
	Semester Subtotal .....	0.0 SH
Yr 3 FL	C ENG U301 Advanced Writing in Discipline	4.0 SH
Yr 3 FL	C PHY U602 Electricity & Magnetism	4.0 SH
Yr 3 FL	A ECE U402 Electronics	4.0 SH
	Coreq(s): A ECE U403	
Yr 3 FL	A ECE U403 Lab for ECE U402	1.0 SH
	Coreq(s): A ECE U402	
Yr 3 FL	A ECE U464 Linear Systems	4.0 SH
Yr 3 FL	A ECE U465 Lab for ECE U464	1.0 SH
	Semester Subtotal .....	18.0 SH
Yr 3 SP	C PHY U603 ElectroMagnetic Waves & Optics	4.0 SH
Yr 3 SP	NU Core Course or Elective	4.0 SH
Yr 3 SP	NU Core course or Elective	4.0 SH
Yr 3 SP	NU Core Course or Elective	4.0 SH
	Semester Subtotal .....	16.0 SH
Yr 3 S1	VACATION	0.0 SH
	Semester Subtotal .....	0.0 SH
Yr 3 S2	VACATION	0.0 SH
	Semester Subtotal .....	0.0 SH
Yr 4 FL	C PHY U617 Quantum Mechanics	4.0 SH
Yr 4 FL	C PHY U600 Advanced Physics Lab 1	4.0 SH
Yr 4 FL	A ECE G200 Linear Systems Analysis	4.0 SH
Yr 4 FL	A ECE G204 Appl Prob & Stochastic Proc	4.0 SH
	Semester Subtotal .....	16.0 SH
Yr 4 SP	C PHY U954 Experiential Ed Directed Study	4.0 SH
Yr 4 SP	ECE Graduate Elective	4.0 SH
Yr 4 SP	ECE Graduate Elective	4.0 SH
Yr 4 SP	ECE Graduate Elective	4.0 SH
	Semester Subtotal .....	16.0 SH
Yr 4 S1	VACATION	0.0 SH
	Semester Subtotal .....	0.0 SH
Yr 4 S2	VACATION	0.0 SH
	Semester Subtotal .....	0.0 SH

Yr 5 FL	C PHY U700 Adv Physics Lab 2	4.0 SH
Yr 5 FL	ECE Graduate Elective	4.0 SH
Yr 5 FL	ECE Graduate Elective	4.0 SH
Yr 5 FL	ECE Graduate Elective	4.0 SH
	Semester Subtotal .....	16.0 SH