

Combined BSc (ENGINEERING PHYSICS) and MSc (MATERIALS SCIENCE)
Program (2015-16 Bulletin)

NAME: _____

		Pre-Req.	Term	Math & Basic Sci.	Engin. Topics	Gen. Educ.	Other	Total	
T E R M	Fresh. I	MATH111-Calculus I	I, II, S	4	0	0	0	4	
		CHGN121-Chemistry I	I, II	4	0	0	0	4	
		LAIS100-Nature & Human Val.	I,II	0	0	4	0	4	
		GEGN101-Earth & Env. OR CBEN110-Fund. Of Biology OR CSCI 101-Intro. Comp. Sci***	I, II, S	4	0	0	0	4	
		CSM101-Success Seminar		0	0	0	0.5	0.5	
		PAGN101-Physical Education	I	0	0	0	0.5	0.5	
		Total		12	0	4	1	17	
	Fresh. II	MATH112-Calculus II	MA111	I, II, S	4	0	0	0	4
		CHGN122-Chemistry II	CH121	I, II, S	4	0	0	0	4
		PHGN100-Physics I Mechan.	co-MA112	I, II, S	4.5	0	0	0	4.5
		EPIC151-Design I		I, II	0	3 √	0	0	3
		PAGN102-Physical Education		II	0	0	0	0.5	0.5
		Total		12.5	3	0	0.5	16	
	Soph. I	MATH213- Calculus III	MA112	I, II, S	4	0	0	0	4
		PHGN200-Physics II E&M	PH100, co-MA213	I, II, S	4.5	0	0	0	4.5
		EPIC269-EPICS II-Eng. Phys■	EP151	I, II	0	3 √	0	0	3
		LAIS200-Human Systems	LIHU100	I, II	0	0	3	0	3
PAGN20x-Physical Education			I, II	0	0	0	0.5	0.5	
Total			8.5	3	3	0.5	15		
Soph. II	MATH225/235-Differential Eq.	MA213	I,II,S/II	3	0	0	0	3	
	MATH332/342-Linear Algebra	MA213 or 223 or 224	I, II/II	3	0	0		3	
	PHGN215-Analog Circuits	PH200	II	0	4	0	0	4	
	PHGN300/310**-Mod. Physics I	PH200, co-MA225/235	I,II	3	0	0	0	3	
	CHGN209/CBEN210*-Intro Thermo.	CH122,PH100,MA112	I, II	0	3	0	0	3	
	PAGN20x-Physical Education		I, II	0	0	0	0.5	0.5	
	Total		9	7	0	0.5	16.5		
Summer	PHGN384-Summer Field Sess.	PH300/310,PH215	S	0	6 √	0	0	6	

*The Physics Department recommends that you take CBEN210

**The Physics Department recommends that you take PHGN310

***CSCI 101 is only 3 credits--Students taking this course must take at least one additional credit to meet total credit hour requirements.

■ Any flavor of EPICS II is allowed for Physics. EPIC 269 Fa

√ Significant Design

Combined BSc (ENGINEERING PHYSICS) and MSc (MATERIALS SCIENCE)
Program (2015-16 Bulletin)

NAME: _____

		Pre-Req.	Term	Math & Basic Sci.	Engin. Topics	Gen. Educ.	Other	Total	
T E R M	Jun. I	PHGN311-Intro to Math Phys.	MA225/235,332/342,PH300/310	I	3	0	0	0	3
		PHGN315-Advanced Lab I	PH300/310	I	0	2 √	0	0	2
		PHGN317-Digital Circuits	PH215 or EENG281+EG250	I	0	3 √	0	0	3
		PHGN350-Interm. Mechanics	PH200, co-PH311	I	0	4	0	0	4
		HSS Elective I			0	0	3	0	3
		Total			3	9	3	0	15
	Jun. II	PHGN320-Modern Physics II	PH300/310, PH311	II	4	0	0	0	4
		PHGN326-Advanced Lab II	PH315	II	0	2 √	0	0	2
		PHGN341-Thermal Physics	CHGN209/CBEN210*, PH311	II	0	3	0		3
		PHGN361-Intermediate E&M	PH200, PH311	II	0	3	0	0	3
		EBGN201-Prin of Economics		I,II,S	0	0	3	0	3
		Total			4	8	3	0	15
	Sen. I	PHGN471-Sr. Design Principles	PH384, PH326, co PH481	I	0	0.5 √	0	0	0.5
		PHGN481-Sr. Design Practice■	PH384, PH326, co-PH471	I	0	2.5 √	0	0	2.5
		PHGN462-EM Waves/Optic.PH	PH361	I	0	3	0	0	3
		PHGN440-Solid State Physics♦	PH320	I	0	3	0	0	3
		MLGN593-Bonding/Struct/Crys.●	PH3431	I	0	3	0	0	3
		HSS Elective II			0	0	3	0	3
		Total			0	12	3	0	15
	Sen. II	PHGN472-Sr. Design Principles	PH471, PH481, co PH482	II	0	0.5 √	0	0	0.5
PHGN482-Sr. Design Practice■		PH471, PH481, co PH472	II	0	2.5 √	0	0	2.5	
PHGN419-Princ. Of Solar Energy♦		PH200, MA225	II	0	3	0	0	3	
MLGN592-Adv Mat Kinetics/Tran.●		PH341,CH122,MA225,PH462	II	0	3	0	0	3	
MLGN535-Micro Process Lab♦		Instructor Consent	II	0	3	0	0	3	
HSS Elective III				0	0	3	0	3	
Total				0	12	3	0	15	
TOTAL				49	60	19	2.5	130.5	

*The Physics Department recommends that you take CBEN210

√ Significant Design

■Honors courses PHGN491/492 may be substituted with instructor's consent.

♦Electronic Materials Physics electives. For other Materials Science options, consult advisor.

●Required grad classes apply toward undergraduate degree