

Combined BSc (ENGINEERING PHYSICS) and MSc (ELECTRICAL ENGINEERING INFORMATION AND SYSTEMS SCIENCES) Program (2015-16 Bulletin)

		Pre-Req.	Term	Math & Basic Sci.	Engin. Topics	Gen. Educ.	Other	Total	
T	Fresh. I	MATH111-Calculus I		I, II, S	4	0 0	0	0	4
		CHGN121-Chemistry I		I, II	4	0 0	0	0	4
		LAIS100-Nature & Human Val.		I,II	0	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	0	4
		CSM101-Success Seminar			0	0 0	0	0.5	0.5
		PAGN101-Physical Education		I	0	0 0	0	0.5	0.5
		Total			12	0 0	4	1	17
E	Fresh. II	MATH112-Calculus II	MA111	I, II, S	4	0 0	0	0	4
		CHGN122-Chemistry II	CH121	I, II, S	4	0 0	0	0	4
		PHGN100-Physics I Mechan.	co-MA112	I, II, S	4.5	0 0	0	0	4.5
		EPIC151-Design I		I, II	0	3 ✓	0	0	3
		PAGN102-Physical Education		II	0	0 0	0	0.5	0.5
		Total			12.5	3 0	0	0.5	16
R	Soph. I	MATH213- Calculus III	MA112	I, II, S	4	0 0	0	0	4
		PHGN200-Physics II E&M	PH100, co-MA213	I, II, S	4.5	0 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 0	3	0	3
		CSCI261-Computer Programming		I, II, S	3	0	0	0	3
		PAGN20x-Physical Education		I, II	0	0 0	0	0.5	0.5
		Total			11.5	3 0	3	0.5	18
M	Soph. II	MATH225/235-Differential Eq.	MA213	I,II,S/II	3	0 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	0	4
		PHGN300/310**-Mod. Physics I	PH200, co-MA225/235	I,II	3	0 0	0	0	3
		CHGN209/CBEN210*-Intro Thermo.	CH122,PH100,MA112	I, II	0	3 0	0	0	3
		PAGN20x-Physical Education		I, II	0	0 0	0	0.5	0.5
		Total			9	7 0	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

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

**The Physics Department recommends that you take PHGN310

✓ Significant Design

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

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T	Jun. I	PHGN311-Intro to Math Phys.	MA225/235,332/342,PH300/310	I	3	0 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	0	4
		EENG307-Feedback Control Sys	PH215, MA225/235	I,II	0	3 ✓	0	0	3
		EENG388-Info System Science	PH215, MA225/235	I, II	0	4 0	0	0	4
		Total			3	16 0	0	0	19
E	Jun. II	PHGN320-Modern Physics II	PH300/310, PH311	II	4	0 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	0	0	3
		PHGN361-Intermediate E&M	PH200, PH311	II	0	3 0	0	0	3
		EENG311-Info. Sys. Sci. II	EENG388	II	0	3 ✓	0	0	3
		Total			4	11 0	0	0	15
M	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	0	3
		EENG417-Modern Control Des.%	EENG307	I	0	3 ✓	0	0	3
		MEGN441-Intro to Robotics	CSCI261, EENG281**	I	0	3 ✓	0	0	3
		HSS Elective I			0	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
		EBGN201-Prin of Economics		I,II,S	0	0	3	0	3
		EENG411-Digital Signal Proc.%	EENG388	I,II	0	3 ✓	0	0	3
		HSS Elective II			0	0	3	0	3
		HSS Elective III			0	0	3	0	3
		Total			0	6 0	9	0	15
TOTAL				52	64 0	19	2.5	137.5	

*The Physics Department recommends that you take CBEN210

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

✓ Significant Design

**Apply for waiver of EENG281 from instructor

%EENG417 and EENG411 can apply to graduate degree. S