

Course Subject and Title	Cr.	Pre-Admit Req	Gen. Ed (formerly Core)	Can be taken at CNM	Min. Grade	CNM equivalents	Course Subject and Title	Crs.	Pre-Admit Req	Gen. Ed (formerly Core)	Can be taken at CNM	Min. Grade	CNM equivalents
Semester One:							Semester Two:						
ENGL 1120 [120]: Composition II	3	Y	COMM	Y	C	ENGL 1102	MATH 1522 [163] : Calculus II	4	Y	GE-choice	Y	C	MATH 1715
MATH 1512 [162]: Calculus I	4	Y	MTH	Y	C	MATH 1710	PHYS 1320: Calc-based Physics II	3	*	PNS	Y	C	PHYS 1810
PHYS 1310 [160]: Calc-based Phys I	3	*	GE-choice	Y	C	PHYS 1710	PHYS 1320L: Calc-based Physics II Lab	1	*	PNSL	Y	C	PHYS 1892
ECE 101: Intro to ECE	1	*		N	C		ENGL 2210: Prof. & Tech. Writing	3		COMM	Y	C	ENGL 2219
ECE 131L: Programming Fundamentals	4	*		Y	C	CSCI 1151 or CIS 1275+2275	ECON 2110/2120[105/106]: Macro or Micro	3		SB	Y	C	ECON 2200/2201
Total:	15						Total:	14					
Semester Three:							Semester Four:						
ECE 203: Circuits I	3	*		Y	C	ENGR 2910 or ELEC 1004	ECE 213: Circuits II	3	*		Y	C	ENGR 2915
ECE 238L: Computer Logic Design	4	*		N	C		ECE 300: Advanced Eng. Mathematics	4			Y	C	MATH 2810 + 2910
MATH 2530 [264]: Calculus III	4	*		Y	C	MATH 2710	ECE 206L: Instrumentation	2	*		Y	C	ELEC 1092
PHYS 2310 [262]: Calc-based Physics III	3	*		Y	C	PHYS 2710	Basic Science or Math Elective	3	*		Y	C	See audit for options
PHYS 2311: Problems in PHYS III	1			N/A	N/A	Recommended	Humanities #	3		HUM	Y	C	See audit for options
Total	14						Total	15					
Semester Five:							Semester Six:						
ECE 314L: Signals and Systems	4			N	C		ECE 322L: Electronics II <i>Spring Only</i>	4			N	C	
ECE 321L: Electronics I <i>Fall Only</i>	4			N	C		ECE 344L: Microprocessors	4			N	C	
ECE 340: Probabilistic Methods	3			N	C		ECE 360: EM Flds & Waves <i>Spring Only</i>	4			N	C	
ECE 371: Materials and Devices <i>Fall Only</i>	3			N	C		ECE 381: Intro Elec. Power Sys. <i>Spring Only</i>	3			N	C	
Second Language #	3		SL	Y	C	See audit for options							
Total	17						Total	15					
Apply to 4+1 Shared Credit							Apply to 4+1 Shared Credit						
Semester Seven:							Semester Eight:						
ECE 341: Intro to Comm. Systems	3			N	C		ECE 420: Senior Design II	3			N	C	
ECE 345/ME 380 Intro to Control Syst.	3			N	C		ECE Track Elective (500-level)	3			N	B	Shared UG and GR
ECE 419: Senior Design I	3			N	C		ECE Tech Elective (500-level)	3			N	B	Shared UG and GR
ECE Track Elective 500-level	3			N	B	Shared UG and GR	Diversity	3			N	C	See audit for options
Art and Design	3		AD	Y	C		ECE 500-level	3			N	B	GR only (not shared)
Apply to MS Program Admissions.unm.edu							Apply to MS Program Admissions.unm.edu						
Total	15						Total	15					
Semester Nine: MS-EE							Semester Ten: MS-EE						
ECE 500-level	3			N	C		ECE 500-level	3			N	C	
ECE 500-level	3			N	C		ECE 500-level	3			N	C	
ECE 500-level	3			N	C		ECE 500-level	3			N	C	
ECE 590: Graduate Seminar	1			N	C						N	C	
Total	10						Total	9					

General Education Component (15 credit hours)							Electrical Engineering Requirements (62 Credit Hours)						
Writing and Speaking: (6 credit hours)		ENGL 1120 Composition III (3) & ENGL 2210 Tech Writing (3) <i>*Students that test out of ENGL 1120 will need to replace the credit hours with another writing/speaking course.</i>					ECE 101 Introduction to ECE (1)* ECE 131L Programming Fundamentals (4)* ECE 203 Circuit Analysis I (3)* ECE 206L Instrumentation (2) ECE 213 Circuit Analysis II (3) ECE 238L Computer Logic Design (4) ECE 300 Advanced Engineering Mathematics (4) ECE 314L Signals & Systems (4) ECE 321L Electronics I (4) ECE 322L Electronics II (4) ECE 340 Probabilistic Methods (3) ECE 341 Intro to Communication Systems (3) ECE 344L Microprocessors (4) ECE 345 Intro to Control Systems (3) ECE 360 Electromagnetic Fields & Waves (4) ECE 371 Materials & Devices (3) ECE 381 Intro to Power Systems (3) ECE 419 Senior Design I (3) ECE 420 Senior Design II (3)						
Social/Behavioral: (3 credit hours)		ECON 2110/2120: Macro or Micro											
Humanities: (3 credit hours)		3 credit (one course) your choice. See approved list of general education electives in the UNM Course Catalog, or LoboTrax degree audit.											
Art and Design: (3 credit hours)		3 credits (one course) your choice. See approved list of general education electives in the UNM Course Catalog, or LoboTrax degree audit.											
Second Language: (3 credit hours)		3 credits (one course) your choice. See approved list of general education electives in the UNM Course Catalog, or LoboTrax degree audit.											
Mathematics (12 credit hours)													
MATH 1512*, MATH 1522*, MATH 2530* Calculus I, II and III													
Science (13 credit hours)							ECE Track Electives (6 hours)						
PHYS 1310*, PHYC 1320*, 1320L*, 2310* Physics I, II and II lab & III							Two courses from one of the following available tracks (6):						
Basic Science or Mathematics (3 credit hours)*: MATH 300 level or above (3 credit hours) or, CHEM 1215, 1225, BIOL 1110, 1140, ASTR 2110, 2115							Digital Systems: ECE 338 & 438 or ECE 231 and 331 Electromagnetics: ECE 460 & 469, or ECE 495 Comp. Methods & ECE 495 Plasma Physics Microelectronics: ECE 471 & 474L or 421 & 424 Optoelectronics: ECE 471 & 475 Power/Energy Systems: 2 courses from ECE 482, 483, 484, 488, 489 Signals and Communications: ECE 439 & 442 Systems and Controls: ME 481 & ECE 446						
Diversity (3 credit hours)							Shared Credit 4+1 students must take track and tech courses at the 500-level when available. See UNM catalog for eligible courses and 400/500 level cross-listings. 200-300 level courses are not eligible for shared credit. A maximum of 6 hours of 400-level courses can be applied toward the MS program.						
The U.S. & Global Diversity & Inclusion undergraduate requirement promotes a broad-scale understanding of the culture, history or current circumstance of diverse groups of people who have experienced historic and/or contemporary inequitable treatment in the U.S. or in a global context. See LoboTrax for full list of courses. # Denotes UNM general education courses that may be double counted to satisfy both.													
ECE Departmental Admission Criteria (pre-major to degree seeking)							ECE Technical Electives (3 credit hours)						
ENGL 1110 or above, MATH 1512 & 1522, plus an additional 10 credit hours of MATH and Science-based courses (technical courses) with a minimum 2.5 GPA in these courses. A 2.2 cumulative GPA is also required. * Denotes courses that qualify for ECE departmental admission <i>Students must be admitted as ECE degree seeking to take 300 and 400-level courses.</i>							ECE Technical Elective (3 credits) one course can be taken from ECE 300-400 level courses, or any Engineering course; ME, CE, CS, NE, CHME, MATH or PHYC. This should be decided in consultation with your faculty advisor. See UNM Course Catalog for the full list of course options.						
							Shared Credit 4+1 students must take track and tech courses at the 500-level when available.						
							Important Notes						
							1) * Denotes courses that qualify for ECE departmental admission						
							2) # Denotes UNM general education courses that may be double counted to satisfy both UNM Gen. Ed. (formerly Core) and Diversity.						
For more information see the catalog at catalog.unm.edu							3) Cells filled with Grey represent courses that complete UNM Gen. Edu (formerly UNM Core)						
Department Website: ece.unm.edu							4) Beginning Fall 2019 the State of New Mexico requires that most 100- and 200- level courses across all institutions of higher learning share common course numbers (CCNs). This curriculum sheet identifies UNM's old course number in brackets [].						
updated 11/5/2019							5) Cells filled light red denote possible "shared credit" courses						
							6) Cells filled red denote remaining 500-level courses needed to earn the MS-EE						