BS Computer Engineering Curriculum

Effective **Spring 2015** (120 hours)

UNM Core Curriculum, June 2015

FRESHMAN YEAR

FALL SEMESTER			SPRING SEMESTER		
Course #	core	**Cr**	***Course #***	core	**Cr**
ECE 101: Intro to ECE		1	ECE 231: Intermediate Programming		3
ECE 131: Programming Fundamentals		3	MATH 163: Calculus II		4
ENGL 110: Accelerated Composition *(or equivalent based on placement)*	WS	3	ENGL 120: Composition III	WS	3
MATH 162: Calculus I	MTH	4	PHYC161: General Physics	PNS	3
PHYC 160: General Physics	PNS	3	PHYC161L: General Physics Lab	PNS	1
Total		**14**	**Total**		**14**

SOPHOMORE YEAR

FALL SEMESTER			SPRING SEMESTER		
Course #	core	**Cr**	**Course #**	core	**Cr**
ECE 203: Circuit Analysis I		3	ECE 206L: Instrumentation		2
ECE 238L: Computer Logic Design		4	ECE 213: Circuit Analysis II		3
Basic Science with Laboratory		4	ECE 300: Advanced Eng. Mathematics		4
ECON 105 or 106: Macro/Microeconomics	SB	3	ECE 330: Software Design *Spring Only*		3
ENGL 219: Technical Writing	WS	3	MATH 264: Calculus III		4
Total		**17**	**Total**		**16**

JUNIOR YEAR

FALL SEMESTER			SPRING SEMESTER		
Course #	core	**Cr**	**Course #**	core	**Cr**
ECE 314: Signals and Systems		3	ECE 331: Data Structure Alg. *Spring Only*		3
ECE 321L: Electronics I *Fall Only*		4	ECE 344L: Microprocessors		4
ECE 340: Probabilistic Methods		3	Technical Elective***		3
MATH 327: Discrete Structures		3			
*Foreign Language Core**	*FL	3	*Social/Behavioral Sciences Core Elective**	*SB	3
Total		**16**	**Total**		**13**

SENIOR YEAR

FALL SEMESTER			SPRING SEMESTER		
Course #	core	**Cr**	**Course #**	core	**Cr**
ECE 419: Senior Design I *Fall Only*		3	ECE 420: Senior Design II *Spring Only*		3
ECE 437: Operating Systems		3	ECE 440: Comp. Networks		3
ECE Track Course**		3	ECE Track Course**		3
Technical Elective***		3	*Fine Arts Core Elective**	*HU	3
*Humanities Core Elective**	*HU	3	*Humanities Core Elective**	*FA	3
Total		**15**	**Total**		**15**

**See approved list of core electives in the ECE Undergraduate Handbook.*

***ECE track courses for Computer Engineering consist of ECE 338 and 438, or ECE 335 and 435*

****Technical electives are developed in consultation with your academic advisor and can be taken from ECE, Computer Science, Physics, Math or other engineering-related courses 300-level or above.*

No grades below a 'C' are allowed in the Computer Engineering Program.

Update March 9, 2017

BS Computer Engineering Graduation Requirements
Effective Spring 2015

Total credit hours: 120; All grades must be C or better in the Computer Engineering Program
For more information, see the ECE Undergraduate Handbook at www.ece.unm.edu

General Education Component

Written Communication (9 credits)

ENGL 110◆ Accelerated Composition (3)
(or ENGL 111 & ENGL 112 Composition I & II (6);
or ENGL 113 Enhanced Composition (4))

ENGL 120 Composition III (3)

Engl 219 Technical Writing (3)

Area of Knowledge (18 credits)

Core Social/Behavioral Science Elect. (3)
Econ 105 or 106 (Social & Beh. Science) (3)
Core Humanities Elective (6)
Core Fine Arts Elective (3)
Core Second-Language Elective (3)

Mathematics & Sciences Component

Mathematics (19 credits)

Math 162◆, 163◆, 264 Calculus I, II, III (12)
Math 327 Discrete Structures (3)
ECE 300 Advanced Engineering Mathematics (4)

Science (11 credits)

Phys 160*, 161*, 161L*, General Physics (7)
Additional approved basic sciences:* (4)
(Biol 110 w/112L, 123 w/124L, 201L, 202L; Chem 121w/ 123L; Phys 262 w/262L; or Astr 270 w/270L, 271 w/271L)

Computer Engineering Component

Required (51 credits)

ECE 101 Introduction to ECE (1)*
ECE 131 Programming Fundamentals (3)*
ECE 203 Circuit Analysis I (3)*
ECE 206L Instrumentation (2)
ECE 213 Circuit Analysis II (3)
ECE 231 Intermediate Programming (3)*
ECE 238L Computer Logic Design (4)
ECE 314 Signals & Systems (3)
ECE 321L Electronics I (4)
ECE 330 Software Design (3)
ECE 331 Data Structures & Algorithms (3)
ECE 340 Probabilistic Methods (3)
ECE 344L Microprocessors (4)
ECE 419 Senior Design I (3)
ECE 420 Senior Design II (3)
ECE 437 Operating Systems (3)
ECE 440 Computer Networks (3)

Track Courses (6 credits)

Hardware Emphasis

ECE 338 Intermediate Logic Design (3)
ECE 438 Design of Computers (3)

--or--

Software Emphasis

ECE 335 Integrated Software Systems (3)
ECE 435 Software Engineering (3)

Technical Electives (6 credits)

ECE Technical Elective (6)
Approved 300-level and above courses developed in consultation with your faculty advisor

.....

Eighteen hours of prerequisite technical courses must be completed prior to applying to the department.
A GPA of 2.5 or better on prerequisite coursework is required for admission to the department. A student's overall GPA must not fall below 2.20
◆ *Denotes required prerequisites that must be completed prior to applying for admission to ECE.*
* *Ten additional hours of prerequisite course work must be chosen from these courses.*

Updated March 9, 2017